



# Populism and Higher Education Curriculum Development: Problem Based Learning as a Mitigating Response

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*Edited by*

Romeo V. Turcan · John E. Reilly

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# Populism and Higher Education Curriculum Development: Problem Based Learning as a Mitigating Response

“Writing in the midst of the Covid-19 pandemic it is arresting to read a book that identifies the challenge of a totally different type of pandemic – populism – and the threat which it poses to the academic world. As the authors say, ‘it is difficult to escape the conclusion that the majority of graduates may be as vulnerable to populist rhetoric as nongraduates precisely because they are not engaged in a process of consciousness raising through their curriculum’. This represents a grave indictment of Higher Education to which the book offers insights from a variety of perspectives arguing that the curriculum and the learning process need to respond in a vigorous way engaging both teacher and learner with the flood of ‘isms’. This view is echoed by European Rectors in their Vienna Declaration that there is an urgent need to combat manifestations of populism and ‘strive to prevent and work against’: ‘post-truth explanations – increasing inequalities, nationalism, racism, anti-Semitism, intolerance, polarisation, and radicalisation as well as pseudo-science and pseudo-facts and other threats to democratic and scientific culture’. Problem Based Learning may not be the total antidote but if it is rigorous it does instill a recognition that all evidence needs to be interrogated systematically and thoroughly and that solutions to complex problems can rarely be encapsulated by simple slogans. This is a timely, thought provoking book precisely because it is searching for a type of academic vaccine to the undermining threats of populism, which will require wholehearted engagement to achieve.”

—Ilan Alon, Professor, *University of Agder, Norway*

“In the post-truth and populism era, this book takes current controversial topics, including BREXIT, globalization and the counter forces of nationalism and protectionism, sustainable development, the impact of Artificial Intelligence – and asks whether a genuine research based, problem oriented, learner-centred approach provides a way forward. A must read for scholars and entrepreneurs that feel and experience the challenge.”

—Christian Felzensztein, PhD, International Scholar & Entrepreneur, Spain, and Former Dean’s Chair, New Zealand

“John Reilly and Romeo Turcan have crystallised what people working in and around higher education have begun to feel. In this book, the seismic shifts affecting the top tiers of academe are laid bare and their consequences on the sector explored. The range of voices brought together in the volume lead to recommended priorities and possible pathways for those engaged in curriculum design, learning development, research, and research dissemination.”

—Dr Simon Haslam, Visiting Fellow, *Durham University  
Business School, UK*

“Timely, sharp and inspiring! In today’s chaotic world, this book dispels the clouds to let us see the sun. Authors provide unique opinions and answers to major issues with which universities globally have to contend with in the tsunami of populism. Besides educators, every one of us should turn our attention to the message this book is conveying.”

—Prof. Dr. Xiaotian Zhang, Associate Vice President, *Shanghai  
University, China*

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Education Curriculum  
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*To our families*

# Foreword

This book tackles the audacious supposition that ‘radical reform of curriculum, learning and teaching philosophies and methods and mission is essential because of unprecedented and multifaceted external developments for which graduates need to be prepared’. From the outset we are presented with a wide-ranging, thought-provoking call to arms for those who have longed for reform, a re-energised active academia with a more visible role in the management of the teaching and learning agenda within universities and in society in general. Given the events of the spring of 2020, these issues seem uncannily prescient and the authors ask searching questions of the role of universities and the academy in preparing students with sufficiently robust and enquiring minds, not just to survive but to embrace a world of increasing and sometimes conflicting demands and expectations of them.

The world of academia, once the natural home of creativity and experimentation, collides with the ‘real’ world which is characterised by uncertainty, blurred reality, neoliberalism, marketisation, populism, and increasing costs yet dwindling resources. The authors explore the challenges posed for curriculum by the plethora of external drivers which tug at the heart of academia and usher in new drivers—industry, employers, technological advances all pushing for creativity and distinctiveness,

against a backdrop of increasingly directive regulation and a demand for comparability and uniformity of not just how but what we can measure to indicate its 'value'.

While the text acknowledges the role of social sciences in embracing and making sense of these agendas, it also suggests that there is room for further criticality in the scientific disciplines where evidence-based thinking is linked to the validity of data, especially in data science. The commitment to graduate skills is a feature of many institutional approaches to curriculum development, with critical and creative thinking seen as core skills, albeit often interpreted in terms of subject-specific skills. The European Higher Education Area Standards and Guidelines for Quality Assurance states that 'Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process'. This Delphic prose is open to interpretation, but it poses a further challenge to understandings of academic autonomy and relations between learner and teacher in the new learner-centred paradigm. Students are as susceptible to populism as other members of society.

The book explores aspects of the 'populism tsunami' and the challenges to navigating the surfeit of demands for creativity and problem-solving. For a dyed-in-the-wool professional administrator like myself, I am heartened by the scintilla of hope offered for the academy to survive the impact of such turbulence.

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Maureen McLaughlin



# Preface

The academic world faces a tsunami in which knowledge and evidence-based understanding and decisions are in danger of being swept away by the deluge of populist propaganda and assertion masquerading as the new truths. The populist pandemic represents a major challenge to learning and teaching in all disciplines and the failure of the academic body to foster the societal engagement of learners and engage actively itself means that the challenge is now a red alert or in government parlance at a 'critical' level requiring an urgent and exceptional response. Hence the need for, and purpose of, this book.

We identify a range of issues with which universities globally have to contend. These 'forces' pose grave challenges to conventional curriculum content and learning and teaching, and the mind sets of students and graduates. We argue the need for their active engagement with the global experience that 'isms' triumph over evidence and identity relations reinforce beliefs even if they run counter to evidence. While the message is universal, those who shape curriculum in different regions and countries will need to address their specific manifestation of political, scientific, cultural and social 'populism'.

What actually drives curriculum content and structure, and learning and teaching methods? This book explores how Problem Based Learning (PBL) is shaped by non-academic, external social and political factors

and in particular the extent to which the curriculum and learning and teaching need to respond to populism and the populist agenda.

The range of examples considered affect curriculum content and teaching and learning: PBL philosophy, methodology and tools: increased government (including international organizations such as the EU, OECD, UNESCO) directives and interventions; mass participation; gender politics; the impact of social media; the impact of populism; the need to adjust to widening participation and social inclusion; resurgence of nationalism; the rhetoric of entrepreneurship; the skills agenda; the implications of the shift to student-centred learning; the influence of league tables; quality assurance structures; employers demands; emphasis on skills; privatization in and monetization of higher education; work-based learning and placement learning; international competition; funding including high tuition fees.

Does PBL provide an effective response to any or all of these and many more external influences? Does PBL offer a counter force to a 'Populist' agenda for higher education? Does it work in different ways in different subjects and different countries?

The original contributions explore external and internal 'interventions' that should result in curriculum change. They evaluate whether PBL provides an effective response and equips graduates in all subjects to cope with populist swings of focus and preoccupations. The contributions from different countries and regions indicate how national and regional perspectives as well as internal organization emphasise different aspects of PBL and demonstrate whether in practice the learner has become the centre of the process or is simply a vehicle to reflect the requirements of the external forces shaping curriculum.

This book has grown out of a project implemented in the Republic of Moldova funded by the European Commission under the ERASMUS+ programme: *Introducing Problem Based Learning in Moldova: Toward Enhancing Students' Competitiveness and Employability* (PBLMD).<sup>1</sup> PBLMD implemented PBL-based teaching and learning methods in Moldova in six BSc study programmes from six different, specialised universities. Each university team was free to choose the level of pilot

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<sup>1</sup> [www.pblmd.aau.dk](http://www.pblmd.aau.dk)—is the official website of the PBLMD project.

implementation of PBL: subject, module, semester, study programme, department, faculty, or university. However, the early stage of development and implementation revealed the extent of ‘taken-for-granted’ understanding and beliefs about PBL.

Implementing PBL in an emerging, developing economy underscored the extant institutional voids at macro, meso and micro levels that questioned our assumptions and expectations about PBL in advanced economies. It revealed the nature of these assumptions and expectations. The explicit assumptions and expectations were generic and difficult to understand how to apply and implement at all levels in a university, hence difficult to see their practical value. Tacit assumptions and expectations were challenging to document, thus difficult to ensure their transferability to other study programmes due to specificity of their scope and applicability.

While universities have always needed to react to external developments, they have been more in control than they are today. Curriculum is being shaped and to an increasing extent, dominated by powerful non-academic and non-accountable forces.

Inevitably, this book cannot cover all the non-academic and non-accountable forces that, to an increasing extent, shape curriculum. However, we argue that the genuine learner-centred approach exemplified in problem- and research-based problem focused learning offers effective pathways for tomorrow’s learners and an effective preparation and response to the ‘Populist’ world with which graduates will have to contend. To achieve this goal requires a radical re-appraisal of methods of learning and teaching and curriculum content. The book should therefore be seen as a beginning of an exploration of the relationship between PBL and populism and other external challenges in higher education which it is hoped will encourage further scholarly and policy debates.

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# Acknowledgements

This book would have not been possible, in the first place, without the financial support from the European Commission through the ERASMUS+ programme that in 2015 funded a national project aimed at “Introducing Problem Based Learning in Moldova: Toward Enhancing Students’ Competitiveness and Employability (PBLMD)”.

We express our gratitude to all the contributors who submitted interesting, thought-provoking chapters on aspects of PBL and Populism, which we hope will help to reveal some of the complexities of the topic.

We appreciate and thank Mary Eleanor Mensah, a research assistant at the Theory Building Research Programme ([www.tbrp.aau.dk](http://www.tbrp.aau.dk)), for her assistance and support in multiple aspects of the book production process, including, but not limited to, coordination and management of the communication between the contributors and the editors, coordination of the review process, formatting the papers, including hyperlinking the references.

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We are indebted to our families for their extraordinary support throughout this project.

John E. Reilly  
Romeo V. Turcan

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# Part I

## Setting the Scene



# 1

## Politics and Curriculum Content in a Global Perspective: Addressing the Populism Tsunami

John E. Reilly and Romeo V. Turcan

### Setting the Scene

The academic world faces a tsunami in which knowledge- and evidence-based understanding and decisions are in danger of being swept away by the deluge of populist propaganda and assertion masquerading as the new truths. The populist pandemic represents a major challenge to learning and teaching in all disciplines and the failure of the academic body to foster the societal engagement of learners and engage actively itself means that the challenge is now a red alert, or in government parlance at a 'critical' level, requiring an urgent and exceptional response. Hence the need for and purpose of this book.

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‘Take back control’ was one of the most successful thematic slogans of the Leave Campaign in the UK EU Referendum in 2016. The origin of the slogan was colourfully documented and illustrated in the Channel 4 play ‘Brexit, the Uncivil War’ (Channel4 2018). The slogan could well be a sub-title for a number of the chapters in this book which identify ways in which curriculum change and development are increasingly determined and driven by forces outside Higher Education and by the university ‘management’ and the consequent need to re-assert academic freedom. Public opinion is formed by the repetition of easy slogans, crafted on the basis of data analytics, which become articles of faith from which the academic world is not immune. Fake news, deep fake images and videos, persuasive fraud in all spheres are pervasive, and it is not evident that graduates are anymore prepared to counter any of these than the general populace.

While universities have always needed, especially in the modern era, to react to external developments, they have been more in control than they are today. Curriculum is being shaped and to an increasing extent, dominated by powerful non-academic and non-accountable forces. Throughout the book, a number of these forces will be discussed. We propose that the genuine learner-centred approach exemplified in problem- and research-based learning offers more effective pathways for tomorrow’s learners and provides an effective response to the many external persuaders and a counter force to a ‘Populist’ agenda but it requires a radical re-appraisal of methods of learning and teaching and curriculum content.

In this chapter, we identify a range of issues with which universities globally have to contend, although not all of these are examined in detail in the ensuing chapters. These ‘forces’ pose grave challenges to conventional curriculum content, learning and teaching and the mindsets of students and graduates. We argue the need for their active engagement with the global experience that ‘isms’ triumph over evidence and identity relations reinforce beliefs even if they run counter to evidence. While the general message is universal, those who shape curriculum in different regions and countries will need to address their specific manifestation of political, scientific, cultural and social ‘populism’.

In spite of the rhetoric and demand for research, evidence-based *higher education must ensure a stronger link between research, teaching and*

*learning at all levels* (EHEA Communiqué 2012). Curriculum content, almost inevitably, because of the velocity and pervasive nature of change in all domains, lags in responding to and incorporating scientific, technological, social, political and economic developments. This is a race that the academy cannot win. The metaphor is itself flawed because it implies a unidimensional objective whereas Higher Education is presented with a medley of delivery requirements. A quick review of the increasingly lengthy (some might say long-winded) Ministerial Communiqués from the Bologna (EHEA Communiqué 2012) process, with their agendas for Higher Education, indicates the diversity and evolving nature of the goals. The Bologna Process in Europe illustrates how:

- Governments and the European Union are seeking to shape and harmonize Higher Education in 48 countries.
- UNESCO, OECD add their weight in articulating the mission and objectives of Higher Education and an enumeration of the expectations for graduates in the twenty-first century.
- Employers reiterate their sense that Universities are not ‘producing the goods’.
- Governments undertake regular reviews seeking to re-direct or re-structure aspects of their Higher Education. Recent examples include the UK, Denmark, New Zealand, Australia, President Trump’s budget cuts and the attitude of the Republican right to Higher Education in the USA.

All of these are underlined by and respond to the growth of national and international populism, the manipulation of social media and increasingly sophisticated ‘fake’ news, gender, identity politics and in some regions the demands of religion. The need to adjust to and implement widening participation/social inclusion, entrepreneurship, the skills agenda, the implications of the shift to student-centred learning, the influence of competition and league tables, quality assurance structures, privatization in Higher Education, work-based and placement learning, international competition and funding limitations all clamour for responses from Universities and have an impact on curriculum and learning and teaching.

Academics see this as an assault on fundamental academic freedom and hence want to wrest back control. The enemy tends to be portrayed as administrators/managers/governing bodies. While the corporate University institution, particularly in a competitive environment—national and international—may constrict and set the direction for curriculum, their identification as the primary source of restriction or direction ignores the extent to which they are in a reactive mode. They are cumbersome and slow in initiating curriculum change, partly in response to and because of external constraints, such as accreditation and quality assurance regimes and above all the myriad of external and increasingly strident critics who question whether Universities and the education they offer are fit for purpose. It is important to acknowledge that in the European Union although states exercise considerable control, they do not yet dictate the content of curriculum although in subtle ways they can influence its direction.

We explore formal and informal contexts to which curriculum needs to respond. We hope to demonstrate that tomorrow's graduates require an increasingly wide interdisciplinary, multidisciplinary knowledge and understanding and that the dynamic nature of the world requires a re-discovery of the notion of wisdom engendered by a more rigorous, intellectually demanding way of learning encapsulated by the overarching term 'problem-based learning'. Problem-based learning embraces the concept of student-centred learning focusing on self-directed learning in a way which "involves changing the student-academic staff interface from an asymmetric to a more symmetric power relation. In popular terms, the students take the lead and assume responsibility for their own learning. However, as educational programs are increasingly institutionalised, the students do not find themselves in a position where they are free to do whatever they want. Before students can take the lead, the directions that have been set by government, industry, accreditation bodies and the university will all have to be taken into account. The big question is, how can universities benefit from [self-directed learning] and at the same time respond to institutional demands and cultural diversity?" (de Graaff et al. 2016, p. 125). The question, which we asked in that publication, needs to be enlarged to how can universities and learners meet the tsunami of populism?

A key message, which has been ignored by the majority of disciplines, is that academics and graduates need to be more finely attuned, aware of and participate in the political, social, economic, scientific and technological processes, which are shaping the academic agenda. Examples in this chapter will seek to illustrate this point. Here, too, the mind-set of the graduate is of critical importance—apathy, lack of engagement, retreat into the comfort and supportive environment of cognitive circles ('filter bubbles' or 'echo chambers' or 'comfort zones' or 'identity groups') will inevitably lead to an undermining of the very values that academic freedom is meant to espouse and foster.

Before examining external challenges to curriculum content, a brief review of the formal framework within which learning is structured may be helpful. Although, it should be stressed, this too is determined externally. This is presented in Vignette 1.1.

### **Vignette 1.1: A Brief Review of the Formal Learning Framework**

On a global basis, Higher Education Institutions are subject to some form of external accreditation. This frequently relates to curriculum content at a subject level expressed in terms of 'national standards' which may dictate, at first degree cycle, all or a substantial part of the curriculum. In the UK, 'subject benchmarks' have been formulated. "Subject Benchmark Statements describe the nature of study and the academic standards expected of graduates in specific subject areas. They show what graduates might reasonably be expected to know, do and understand at the end of their studies. .... They provide general guidance but are not intended to represent a national curriculum" (UK QAA Code of Practice). The Tuning approach, which has been replicated in projects on a global basis, has developed a methodology for structuring curriculum and produced handbooks setting out "reference points for the design and delivery of degree programmes" with the object of making programmes "comparable, compatible and transparent". "Reference points (which, it could be argued, are similar to subject benchmarks) are expressed in terms of learning outcomes and competencies" (Tuning Educational Structures in Europe Series 2008, p.17).

The EU formulates the competencies required for the recognition of harmonised professions. Regulatory bodies (normally national or regional) prescribe curriculum requirements for Universities. An example is the UK General Medical Council 'Promoting excellence: standards for medical education and training' (Promoting Excellence: Standards for Medical Education and Training 2015), which sets out "requirements for the

(continued)

**Vignette 1.1** (continued)

management and delivery of undergraduate and postgraduate medical education and training” to be read in conjunction with the detailed Outcomes for graduates 2018 and Outcomes for provisionally registered doctors 2015. University Medical Schools are audited by the GMC to ensure that they comply with the Education Standards and the curriculum outcomes.

As well as conforming to regulations for certain professions, meeting accreditation and national standards, Universities in Europe have to respect European and National Qualifications Frameworks, the European Standards and Guidelines for Quality Assurance, the expectations of their national Quality Assurance Agencies, the ECTS Guide (now a formal Bologna document).

All these requirements, regulations and codes of practice are published, transparent and subject to scrutiny and review. Because they are the outcome of consultation and formal approval processes, reviews are infrequent and protracted. Hence the regulations, codes, national standards and subject benchmarks do not necessarily reflect the most recent developments either in the subject or in society. Nevertheless, they provide criteria and norms, which, because the academic community contributes to them, can be shared and in some sense owned by the faculty.

Employers exercise a less coherent but powerful influence on curriculum. In many countries they are formally consulted and have representative bodies which contribute to the discussion and debate on curriculum and graduate attributes. Employer commentary on the knowledge, understanding and ability of graduates frequently focuses on generic (often called ‘soft’) skills and this applies to all three cycles. Because their commentary is published and open to scrutiny, Universities are able to respond and, in time, amend curriculum to address the needs expressed.

Other challenges tend to be informal, less structured and less coherent but nevertheless potent because they shape social discourse about the nature and objects of Higher Education. Partly because institutions consider that, as public institutions, they are dependent on governments for their funding they have felt unable or reluctant to engage with, what they consider to be, ‘political’ issues. Consequently, outside the Social Sciences, there has been a general failure of the academic community to consider

whether and, if so, how the curriculum in all subjects should address issues such as denialism, radicalisation, extremism, fundamentalism, populism, nationalism, the impact of social media, fake news and the post-truth society.

## Populism

Social scientists are writing at great length about populism as a political and social phenomenon and this ferment is reflected in the wider media. *Le Monde Diplomatique* (Halimi and Rimbart 2018) published a major article “Libéraux contre Populistes” which it labels ‘*un clivage trompeur*’, arguing that they are pursuing the same economic goals while denouncing one another and that ‘*chacun à son façon mettent l’humanité en danger*’. A rather different message emerges from *The Economist* (2018) celebrating its 175th anniversary with a manifesto for ‘Reinventing Liberalism for the 21st Century’ (pp.45–54), stating that it is under attack from populist politicians and movements. The article throws down the gauntlet to Higher Education “If there is a greater liberal stronghold than the international institutions that liberals need to reform, it is the universities that they need to reappraise”.

University reform is a leitmotif of this book, but our argument is that radical reform of curriculum, learning and teaching philosophies and methods and mission is essential because of unprecedented and multifaceted external developments for which graduates need to be prepared.

A different perspective on populism and Liberal Democracy is provided in ‘National Populism – the Revolt Against Liberal Democracy’ (Eatwell and Goodwin 2018), which explains populism in terms of resurgent nationalism, in this case particularly English nationalism, and amounts to an apologia for this expression of nationalism justified because it is a manifestation and platform of ‘populism’. Often the phenomenon is discussed as though it is an elemental force but in practice this force is engendered, manipulated and fuelled by focused individuals, generally political, whose motives and objectives are less subject to critical analysis. As for the most part they are wealthy and manufacture, channel (perhaps a better word is exploit), mass opinion, it is difficult to be confident that

their motives are altruistic. They are moulding popular views and fabricating ‘evidence’ frequently in slogan format to reinforce their position. This is the world which graduates encounter, but are they sufficiently engaged and equipped with the knowledge and skills to cope?

Notwithstanding academic commentaries and explanations, the term ‘populism’ does not have a universally shared meaning. It can be viewed either as a threat to democratic values or a manifestation of real democracy. It would be easy to argue that it should be left to Social Scientists to provide an objective and analytical framework, exploring the topic, but because it has permeated and is applied in commentaries to so many aspects of life, academics in all domains need to recognise that it is a phenomenon for which graduates (whatever their subject) should be prepared.

In a declaration entitled ‘Universities for Enlightenment’, representatives of the Rectors Conferences for Austria, Croatia, the Czech Republic, Germany, Italy, Poland, Serbia, Slovakia, Slovenia and Switzerland, meeting in Vienna in December 2018, stated their commitment to the principles of the Magna Charta Universitatum and expressed “Our concern at movements on the rise in Europe and beyond that threaten the democratic character of our institutions and societies. Post-truth explanations are gaining momentum in shaping public opinion and political debate and have reached a new dimension through social media. Social disintegration and conflict are continuously challenging democratic principles. Our concerns are heightened against the background of increasing inequalities, nationalism, populism, racism, anti-Semitism, intolerance, polarisation and radicalisation, as well as pseudo-science and pseudo-facts and other threats to democratic and scientific culture”. The statement asserts that the Higher Education institutions, which the Rectors represent, “as pillars of society and democracy, strive to prevent and work against these developments” (Vienna Statement 2018). This is a noble aspiration but the question that the Rectors in Vienna need to answer is how, in their institutions, in practice, in the curriculum and learning and teaching in all subjects and all cycles, they will actually ‘prevent and work against these developments’. The Rectors are not isolated in their concern. Other bodies have recognised the threats to fundamental values posed by ‘isms’. Vignette 1.2 presents one of many examples of concerns raised by international organizations.

### **Vignette 1.2: UNESCO Analysis of the Threat of Nationalism: A Feature of the Populist Agenda**

UNESCO highlighted the threat of nationalism in 'Global Citizenship Education and the rise of nationalist perspectives: Reflections and possible ways forward' (UNESCO [51454] 2018). This is a response to the "rise in national perspectives across the world" (p.2) which "raise many questions about the role of education and pose in particular grave challenges to one of UNESCO's key areas of work in the field of education, namely global citizenship, education (GCED) which seeks to equip learners with the skills, values and attitudes needed to contribute to the development of peaceful and just societies". (p.2).

The paper briefly discusses the context of nationalism and focuses on "exclusionary forms of nationalism"—"that risk generating violence, hatred and discrimination and ... run counter to the ideas of the Universal Declaration of Human Rights and the Charter of the United Nations and pose serious threats to human dignity and peace' (p.3).

In its analysis of the causes and facilitating factors, the UNESCO paper notes that "the digital revolution has made it easier and faster to circulate marginalised voices, including those that are the most extreme and exclusionary. Social media and the internet provide demagogues with the ideal accessory to gain popularity by exploiting prejudice and ignorance" (2.4 p.6). The report acknowledges that there are "unresolved tensions and misunderstandings within global citizenship education". "UNESCO's understanding of GCED underlies the importance of developing learners' cognitive, socio-emotional and behavioural skills in order to empower them to become responsible and engaged citizens. When faced with practical implementation, this ideal can seem daunting. Teachers are often not comfortable nor equipped to teach all three dimensions of learning since they require adopting new pedagogical approaches. It is notably challenging for teachers to develop skills for responsible political engagement and for dealing with emotion. GCED therefore runs the risk of being delivered simply as a new subject matter instead of serving as the driver for more profound educational change across the education sector". (p.7).

The reflection on teachers' discomfort in developing "skills for responsible political engagement and for dealing with emotion" has considerable force when applied to the Higher Education sector; many academics would strongly contest that they should be responsible for "developing skills for responsible political engagement and for dealing with emotion". (p.7).

*(continued)*



**Vignette 1.2** (continued)

The paper concludes with an agenda to tackle the challenge, reiterating the vision, stressing key skills: Constructive civic and political engagement, Self-awareness and emotional intelligence, Critical inquiry, Skills for digital citizenship (pp.8–9). Commenting on the essential need for skills in Critical Enquiry, the paper argues that “In our globalised world marked by a relatively easy access to information from diverse sources, learners are confronted with the need to handle new levels of complexity which can generate fears and anxiety ....learners (need to) navigate through this complexity .... by inculcating skills of critical enquiry in order to dissect claims that do not stand up to rigorous scrutiny, logic and rational enquiry”. (p.9).

The UNESCO paper is a further example of an external challenge to Universities, although the Declaration of the Rectors in Vienna in December (see above) confirms that it is congruent with the aspirations, which they express for University education. The problem is that the realisation of these aspirations within the curriculum across the Faculties rarely matches the rhetoric. The Vienna Rectors may have signed a worthy statement but in practice convincing their Faculties that in all subjects they need to address “responsible political engagement”, “dealing with emotion”, “exclusionary forms of nationalism”, “populism, racism, anti-Semitism, intolerance, polarisation and radicalisation, as well as pseudo-science and pseudo-facts and other threats to democratic and scientific culture’ will require a virtual revolution in learning, teaching and curriculum which will be hotly contested, and there is little sign that the process has even begun.

Expressions of nationalism in education are not difficult to find. The promulgation of national myths and an insistence on establishing a sense of national identity through the teaching of history is probably the most familiar but history is not the only field in which nationalism and populism are manifest, as examples in Vignette 1.3 demonstrate.

### Vignette 1.3: Expressions of Nationalism in Education

An extreme example of nationalism is revealed in an article in the UK Guardian (Monday 7 January 2019) headed 'India Outcry after Scientists claim Ancient Hindus invented stem cell research'. The report relates to the India Science Congress during which, the report states, "The Head of a Southern Indian University cited an ancient Hindu text as proof that stem cell research was discovered on the sub-continent thousands of years ago". The Vice-Chancellor also apparently said that "A demon king from another centuries old Hindu epic had two dozen aircraft and a network of landing strips in modern-day Sri Lanka". While this may easily be dismissed by the academic community, the statement from a prominent politician widely disseminated will permeate the public consciousness.

A more significant example of national populism relates to the collapse of the Morandi Bridge in Genoa in August 2018. Several newspapers, including the *New York Times*, *The Local*, *The Guardian* and *The Independent*, reported that the founder of the Five Star Movement, Beppe Grillo, had dismissed warnings of the collapse of the bridge as "fairy tale" although doubts about the safety of the bridge had been expressed for a number of years beforehand. A coalition partner, The League, immediately following on the collapse, blamed the European Union (Brussels) for preventing Italy from spending on infrastructure, choosing to ignore the explicit commitment to infrastructure investment by the EU through the Juncker Plan.

The point about these two examples is that prominent politicians with access to media outlets are promulgating false or fake news which has a popular resonance, in seeking to fuel an introspective national pride, denying the expert views of engineers and blaming a third party—the EU—for the faults of local policy. Counteracting the power of the groups or individuals expressing these views and the likelihood that the views will be echoed and believed in the wider community requires a new dimension in education and ways of communicating evidence.

Although experts and academics may attempt to demonstrate, with hard evidence, the perils of erroneous views, the views hold wide popular sway because they are reiterated by politicians with an ability to manipulate the media and reduce complex issues to simple memorable and repeatable slogans. It is no longer sufficient, for engineers, in the case of

the Morandi Bridge, to demonstrate, through calculations and evidence, the reality of the danger or in the case of the Indian Science Congress, the emptiness of the claim. Higher Education needs to harness new resources and attitudes to ensure that genuine evidence reaches and is understood by a much wider public and at the same time that populist ‘errors’ are effectively refuted in a way which is accepted by the generality. As we will indicate later in this chapter, the need for new methods of effective communication is imperative in the context of pervasive Denialism and ignorance.

## Radicalisation, Extremism, Fundamentalism

The manifestation of extremism on a global basis is most dramatically and frighteningly illustrated by the terrorist atrocities carried out indiscriminately in numerous countries. But radicalisation, extremism and fundamentalism are challenging society in other ways which may be less headline catching but are profound. Higher Education has been called on to address these issues nationally and internationally. In 2017, UNESCO published a guide: *Preventing Violent Extremism through Education: A Guide for Policy Makers*. Indonesia’s Ministry of Research Technology and Education and the National Counter Terrorism Agency (BNPT) are developing guidelines to combat Islamic radicalism on University campuses. (University World News 7th July 2018). The EU has established a Radicalisation Awareness Network (RAN) and has published numerous papers. One is particularly relevant—an ex post paper by Steven Lenos and Jordy Krasenberg, from a workshop “Free Speech, Extremism and the Prevention of Radicalisation in Higher Education” (8/9 February 2018, Manchester, UK), summarised in Vignette 1.4.

### **Vignette 1.4: Calls for HE to Address Radicalization, Extremism, Fundamentalism**

In its introduction, the paper asserts that “Universities, Polytechnics and other HEIs have a unique and indispensable role to play in preventing and countering extremism. In a rapidly globalising world, many are concerned about climate change, the economy and technological developments. Against this background, extremism is challenging democracies ... and spreading violence and terror. Society at large (including the pillars and institutions of democracy) need to step up to these challenges” – “HEIs are such pillars of society, helping society understand challenges and potential answers”. (p.3).

The paper focuses on issues which arise in safeguarding free speech, especially with external speakers and the difficulties of identifying potential extremists. Universities are charged with “preventing people from being lured into violent extremism”, and the paper suggests that this should be tackled by “promoting a positive and constructive range of activities to boost.... fundamental values ...” (p.6).

The RAN paper does not deal explicitly with curriculum content and this surely must be a consideration. This question or perhaps more accurately the subjects studied by radicalised graduates is tackled in a brief paper by Martin Rose—‘Immunising the Mind – How can Education Reform contribute to neutralising violent extremism’.

([www.britishcouncil.org](http://www.britishcouncil.org)) Rose focuses on Middle Eastern/North African Higher Education. His objective is to consider the evidence correlating potential links between education and radicalisation. He reviews research on the educational background of extremists, stressing that the data is limited. He asks why engineers and doctors are over-represented amongst extremists and jihadis and explores explanations. He suggests that social factors play a part arguing that the literature identifies engineers as socially and politically conservative. He also maintains that the research suggests that the manner of teaching in medicine and engineering and the mindset which this establishes damages “the ability of young (medical) students to think critically on a broader canvas” (p.5) in contrast with graduates in humanities and social sciences.

Towards the end of the article is a broader critique of the way in which the STEM subjects are taught. While focused on the Middle East/North Africa, the article argues that the learning and teaching critique is true for Europe and the UK. “The culture of science teaching resolves all too easily into binary right and wrong, correct and incorrect” which is compounded by the lack of engagement of STEM students with social sciences and the humanities. He argues that Governments in the Arab world and the West are “enshrining the contentious assumption that economic growth is the

(continued)

**Vignette 1.4** (continued)

overriding aim of education – and that only STEM subjects really drive growth”. (p.14). The article notes that whereas graduates in STEM subjects seem to be disproportionately attracted to right-wing extremism, graduates in Social Sciences and Humanities tend to be attracted to more left-wing extreme groups.

The author acknowledges that the paper is a superficial review and that the data is limited and to that extent it should perhaps not be given too much weight. However, it does reflect two important points. Higher Education does not insulate graduates or their teachers from extremism and particular subjects and ways of learning may establish attitudes and a mindset which is more susceptible to radicalisation or extremism. These are not questions which the academic community addresses, but if there is some justification, it reinforces the view that ‘engagement’ has to come to the fore in all subjects. The overarching thesis is that the development of critical, analytical, questioning minds provide the means for countering radicalisation and extremism.

Fundamentalism is not limited to terrorist activity. It can be perceived in US institutions where fundamentalist evangelical Christian zeal seeks to suppress teaching of evolution and contemporary views on gender. There are other examples of cultural and religious fundamentalism impacting on the content and form of education and stifling debate and open enquiry. While it may be amusing and the subject of cartoons, it is a matter for note that new ‘isms’ which are manifestations of extreme views are constantly arising. One, which has acquired a new militant edge, is ‘veganism’. Peaceful vegan protests in a number of countries have degenerated into more violent action, which led to the headline in the UK Independent on 27 June 2018 “French butchers demand protection from ‘extremist vegans following a spate of attacks’”. Animal rights groups and ‘Direct Action Everywhere’ have allied on occasions with vegans. It would be easy to dismiss the movements as marginal but they use all the contemporary means of communication—direct action, demonstrations, YouTube and other social media. They purport to base their views on incontrovertible evidence and in their view are supported in the most recent evidence of the impact of animal farming and diet on the environment (IPCC Special report Global Warming of 1.5 °C 2018).

Faculties involved in agriculture, technology, tourism, business studies may need to pay specific attention to these topics. They will need to do so in a trans-disciplinary way, calling on insights and understanding from the Sciences and the Social Sciences and Humanities. Here, as with the other topics, the need to develop effective, relevant curriculum is not emanating from the research findings of the Faculty although these findings may, in part, reinforce the ‘ism’, but from external forces which are gaining international traction.<sup>1</sup>

## Fake News/Post-Truth

In principle, universities are committed to an evidence-based approach to knowledge and assert that this should permeate education and public discourse. However, interpreting evidence, being confident of its reliability and validity, reconciling conflicting evidence and applying it in practice is rarely straightforward. This challenge is compounded by the tendency to present evidence through the media in arresting headlines—simplified, often distorted terms, which ignore complexity—and in ways which suit the political, social, economic context and are ‘economical with the truth’. This is so prevalent that the Pontius Pilate cry ‘what is truth’ seems highly appropriate. In the contemporary world the ability to promulgate dubious and erroneous evidence is compounded by the power of the media and its instant universal availability. It is no surprise that it is claimed that we are in a ‘post-truth’ society and that in 2016 The Oxford Dictionary ‘Word of the Year’ was ‘post-truth’ defined as “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief”. “In this era of post-truth politics it’s easy to cherry pick data and come to

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<sup>1</sup> The approach to veganism in the UK has been further complicated by an employment tribunal (Norwich Employment Tribunal 3rd January 2020) which has ruled that ‘ethical veganism’ is a ‘philosophical belief’ that is protected by law against discrimination. This ruling has potentially wide employment implications but it also illustrates how agile Universities need to be to respond to the ramifications of ‘isms’. Pause for a minute to consider which Departments might need to assimilate and adjust to the new strength of Veganism and its recognition as a ‘philosophical belief’: agriculture, medicine, nutrition, food production, business and management, law, philosophy, sociology, economics.

whatever conclusion you desire”. “Some commentators have observed that we are living in a post-truth age”.<sup>2</sup>

The concept of the ‘post-truth’ society has been reinforced by the instances of ‘fake news’ popularised most prominently by President Trump, who categorises all stories with which he does not agree as fake news. Fake news does not apply simply to the world of politics and the knock-about of political discourse, and it has serious implications. It was a key feature in the UK EU referendum with a Vote Leave poster stating “Turkey population 76 million is joining the EU: Take back control Vote Leave” There was no imminent likelihood of Turkey joining but the message was believed. An anti-immigrant poster unveiled by Nigel Farage entitled ‘Breaking point: the EU has failed us all.’ showed an unending line of Syrian refugees. Although attempts were made to demonstrate that this was not only inciting racial hatred and that it had nothing to do with EU free migration, the message was effective precisely because it spoke to populist views stoked by effective and persuasive communicators—truth did not permeate the public debate.

If this was a minor political issue it might not matter but it involved the most important constitutional and political decision since the end of the second world war with profound long-term economic, political, social, security and scientific implications affecting the future not only of the UK but 27 other countries in the European Union. The UK academic community, while for the most part wishing to remain in Europe, was virtually absent from the debate and as we are arguing did not appreciate the strength and effectiveness of populist weapons and the potential damage to academic values. Poland and Hungary provide similarly grave examples of the impact of populism on their constitutions and the independence of the judiciary. These are cited to indicate that populism manifest as militant nationalism has destructive power and that as the European Rectors have asserted Universities need to find ways to counter this, which will inevitably cause them to be more actively engaged.

The UK House of Lords Digital, Culture, Media and Sports Select Committee held an enquiry into fake news, concerned at “its potentially covert and malign influence on the operation of democratic decision

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<sup>2</sup><https://bit.ly/2Te3Ok>

making” (5 June 2018). In this enquiry, the House of Lords Select Committee was principally concerned with the use of data supplied by Aggregate IQ for the Leave Campaign in the 2016 referendum on UK membership of the European Union.

In a UK television Channel 4 drama—“Brexit, the Uncivil War”, a play with a large documentary component—the use of the data provided by Aggregate IQ targeting over three million potential voters was dramatically illustrated (7th January 2018). It should be stressed that this was a play but in a public presentation, following the referendum, which can be accessed on YouTube—“Cummings, Why Leave won the Referendum?”—, Mr Cummings claimed that the campaign exploited data and used social media in a highly targeted way. It could be argued that, in doing so, he and his team simply recognised, responded to and articulated public concerns. On the other hand, there is a clear sense that a combination of communication psychologists and data scientists with repeated focused and targeted messages can actually form and change minds. Objective evidence, which in the field of political discourse is always open to contest, largely becomes irrelevant. It is precisely how the evidence is interpreted and presented that makes the impact, as exemplified in Vignette 1.5.

### **Vignette 1.5: Call for ‘Unusual’ Professions**

As a result of the success of the UK Conservative Party in the December 2019 general election, Mr Cummings (an architect of the referendum Leave campaign) has been elevated to the position of Chief Special Advisor to Prime Minister Boris Johnson. In a blog (Cummings 2020) he wrote “There is a huge amount of low hanging fruit—trillion-dollar bills lying on the street—in the intersection of:

- the selection, education and training of people for high performance
- the frontiers of the science of prediction
- data science, AI and cognitive technologies (e.g. Cummings 2019, Tetlock/IARPA prediction tournaments that could easily be extended to consider ‘clusters’ of issues around themes like Brexit to improve policy and project management)
- communication (e.g. Cialdini)
- decision-making institutions at the apex of government.”



**Vignette 1.5** (continued)

He advertised for people to work with him on the reform of the UK Civil Service and Government from:

- Unusual mathematicians, physicists, computer scientists, data scientist;
- Unusual software developers;
- Unusual economists;
- Great project managers;
- Communications
- We're particularly interested in deep experts on TV and digital. We also are interested in people who have worked in movies or on advertising campaigns. There are some very interesting possibilities in the intersection of technology and storytelling—if you've done something weird, this may be the place for you;
- Policy experts;
- Super-talented weirdos

Under each heading he indicates literature and research with which applicants should be familiar. He is an example of a person who has garnered the forces of populism and intends to exploit them further using high-level skills. While he despises the Humanities, "What SW1 needs is not more drivel about 'identity' and 'diversity' from Oxbridge humanities graduates but more *genuine cognitive diversity*", he is seeking a diverse and interdisciplinary team. He seems to have acquired exceptional power in an unelected non-accountable (except to the Prime Minister) role and consequently is attracting considerable media attention.

The point of noting Mr Cummings in this chapter is to illustrate that he is looking for the 'unusual' and to ask whether preparing graduates both for the 'unusual' and to work in an interdisciplinary context are objectives that curriculum planners in Higher Education should adopt?

The use of social media in elections is not a new phenomenon. It is argued that it was one of the reasons for President Obama's resounding successes. In the election of President Trump there was extensive use of social media with targeted messages, and commentators have indicated 'false' information, which helped to influence American voters. It has been suggested that there was also external, Russian, intervention designed to affect the outcome. The UK Referendum took this to a different level.

The internet is not used solely for political purposes, opinions are shaped and formed in all spheres via the internet. The internet has become a means of promoting and circulating scientific results on a global basis. Evidence of science fraud barely hits the headlines of the popular press except in the most outrageous cases. However, an article in *Science* (Brainard and You 2018) headed ‘What a massive database of retracted papers reveals about science publishing’s “death penalty”’ gives details of the number of articles and conference papers ‘retracted’ following publication. The article draws on a searchable database ‘Retraction Watch’, which includes “More than 18,000 retracted papers and conference abstracts”. Although “the rise of retractions seems to reflect not so much an epidemic of fraud as a community trying to police itself”, a significant number of the retractions relate to articles which are not simply flawed “about half of all retractions do appear to have involved fabrications, falsification or plagiarism”. It is worrying to think that the authors responsible for these articles are more than likely holding University posts and teaching undergraduates and graduates, which poses disturbing questions about the nature of learning and teaching which is taking place and the rigour of appraisal in the academic world.

All this is not a new phenomenon in Science or other academic fields, but the potential for rapid and wide dissemination and repetition through the internet and onward transmission in social media means that the ability for erroneous and fraudulent ‘evidence’ to influence ideas and practice is multiplied and is difficult to correct, and in the early stages difficult to identify, simply because the source appears to be reliable. While in many cases the fraud ultimately is not harmful, there are examples where it is. In the same article, Adam Marcus of Retraction Watch notes that “In biomedical science, most papers that lead to retractions don’t threaten anyone’s life. But medical studies published by a once-prominent anaesthesiologist offer a troubling exception”. He provides details of how the fraudulent data led to treatment which was potentially harmful. The question which arises is how does the curriculum and learning and teaching in all fields equip graduates to identify and respond to fabricated and fraudulent data. Just as the general public resorts to the internet for information and guidance in all areas of life, students rely on the internet, as the examples in Vignette 1.6 demonstrate.

### Vignette 1.6: The Impact of Social Media on Learning

The phrase 'I'll google it' is now part of everyday conversation. It is a global phenomenon. In April 2017, the Tuning and Harmonisation in Africa Project held a conference in Johannesburg. Of the students who participated in the seminar two were medical students—Lizz Esther Wandia from Kenya in her fourth year of study and Sonia Hamizi from Algeria in her seventh year and now working as an intern. Both students were commenting on the workload and learning methods in their University. Learning from peers, more than from academic staff, was a key feature for both of them. They indicated, that "the use of apps and the internet for explanation and complementary teaching is seen to be an essential ingredient of the learning process" The question arises 'how do the teaching staff accommodate and respond to this? Is it promoted or is it an indication of serious gaps in the formal learning and teaching curriculum?' Lizz Esther comments that the use of medical apps "helped a lot, mainly during ward rounds or during examinations when you are not so sure about a clinical concept. YouTube has become essential where students watch videos on clinical examinations or how to interpret an electrocardiogram". (p.155).

Sonia writes "the internet is heavily utilised. For my part I cannot review a course without having my computer or tablet by my side in order to look for the meaning of medical words and complementary themes". A medical student spends a lot of time on the internet in forums or in focus groups with other students or doctors. Almost as an aside, she notes that "exchanges with our elders are very important in medicine. I always say that everything we learn from books is forgotten but what an elder teaches us remains etched in memory forever". (p.157) 'Elders' in this context seems to mean older students. These two comments from the student perspective are interesting insights into the prevalence of the internet and the use of apps for learning purposes.

In subsequent discussion with the African Tuning group of senior medical academics, it did not appear that, in any of the universities represented, critical review of internet and app information was part of the formal learning process (Olusegun et al. 2018, p.152, 161).

Although these two examples are from two African Medical education systems, a quick review of the UK GMC Standards and Outcomes for Medical Education does not indicate that use of the internet and medical apps is a topic which has to be covered in Medical education in the UK. This is distinct from the use of healthcare informatics, which is an explicit outcome. Since the internet is a source to which students and their future patients will resort on a daily basis, this seems a surprising gap.

It is commonplace to say that the internet and the use of the mobile phone, not simply as a means of person-to-person communication but for on-the-move data and information access, have come to dominate daily life, apps to monitor health, communicate remotely with equipment in the home and as a vehicle for distance learning providing effective on-line libraries. Because it is ubiquitous and on a global basis and has huge utility, citizens tend not to question it except when there are scandals relating to aspects of Facebook, Instagram, Twitter, WhatsApp. Literature on the internet of things and academic analysis of how data is being used and exploited are becoming standard.

The Age of Surveillance Capitalism by Shoshana Zuboff sounds a new type of alarm about an “economic system that uses raw data to predict and manipulate human behaviour for commercial gain” (Naughton 2019). The sub-title of the book ‘*The Fight for Human Future at the New Frontier of Power*’ indicates that this is more than a new text book on an aspect of Capitalism. Professor Zuboff quoted in The Observer cover story (The Observer, 20 January 2019) indicates that Surveillance Capitalism ‘has profound consequences for democracy because asymmetry of knowledge translates into asymmetries of power’, ‘Surveillance capitalism is not technology. Digital technologies can take many forms and have many effects, depending on the social and economic logics that bring them to life. Surveillance capitalism relies on algorithms and sensors, machine intelligence and platforms but it is not the same as any of these’. It ‘depends upon undermining individual self-determination, autonomy and decision rights for the sake of an unobstructed flow of behavioural data to feed markets that are about us but not for us’. If Professor Zuboff’s analysis is correct, it challenges conventional economic theory and requires political science to reassess the nature of the exercise of power in the contemporary world. To what extent will students in a range of disciplines be expected to engage with the challenge which Zuboff poses?

Although not based on the same level of in-depth research, a group of Economics students at the University of Manchester established ‘the Post-Crash Economics Society’, because they considered that following the 2008 financial crisis, conventional Economics teaching did not address the contemporary world and the new economic order. The students attracted a good deal of press attention and helped to establish an

international network of Economics students committed to re-thinking received wisdom in Economics. It is less clear that their agitation has produced any significant change in the Economics curriculum, which probably reflects the innate conservatism of the subject. Nevertheless, it is an example of a challenge to orthodox curriculum content and learning and teaching. The apparent lack of engagement between academics and students on curriculum content seems to undermine the concept of genuine 'self-directed learning'.

The thesis developed in *Surveillance Capitalism* relates closely to other examples of the way in which data, which is now available to companies, is used and manipulated. The outcry about Facebook, Instagram, Cambridge Analytica and, more recently in the UK, Aggregate IQ (referred to above) illustrates this. The impact of directed data management and data analytics raises fundamental questions for all learning and our reiterated question 'to what extent does the curriculum in Economics, Sociology, Psychology, Science, Engineering, Medicine, Philosophy, Ethics, Business deal with these phenomena?' The worry is that the innate conservatism of the academic world, coupled with the administrative protocols for curriculum change, may mean that, apart from individual academics, standard curriculum content will continue to be the norm.

## Denialism

Just as it may be necessary in future curriculum formulations in a wide range of subjects to consider the implications and responses to the surveillance world of the new capitalism, tomorrow's graduates will also need to understand and counter the powerful phenomenon of 'Denialism'. This is not a new phenomenon although the degree of 'denialism' and its global impact are becoming apparent. University learning is based on the assumption that assertions must always be evidence based and open to scrutiny, evaluation and re-evaluation and that the process will lead to received and accepted knowledge and understanding. However, in practice, this is far from the case. Examples of 'denialism' are not difficult to find; several are provided in Vignette 1.7.

### Vignette 1.7: Examples of Denialism

For a long period, the Tobacco industry contested the evidence relating to the impact of tobacco on health. In this case there were strong commercial reasons for doing so and attempts were made not only to suppress research findings but also to ridicule them.

An area where 'denialism' is particularly prevalent is debate on climate change. There may be justification because in such a field uncertainty and probability are constants. Nevertheless, the cumulative weight of scientific evidence is powerful and yet at the highest level—the President of the United States—this evidence is strongly denied and ridiculed and policies which run counter to the collective advice of the scientists are implemented. Because he is the President and his words are echoed globally and his policies are popular with his supporters, the IPCC scientists find it almost impossible to counter. In contrast to the President's pithy tweets, the voluminous, complex data in the IPCC reports has little popular traction.

The literature on genetically modified crops is typified by claim and counter-claim. Whilst this may not be the best example of the way in which cognitive groups simply do not accept evidence or provide counter 'scientific' evidence, it does illustrate that association with a group identity, environmentalists (generally opposed to GM crops) versus the rest, can be more influential than the strongest evidence.

Another domain in which evidence is either partially presented or not published is the Pharmaceutical industry which has been known to obscure, even suppress, evidence of bad side-effects of drugs which are perceived to have a strong commercial potential.

Writers on Denialism explore the reasons—social, psychological, group-identity—often referred to in contemporary commentary as living in a bubble or echo chamber or associating in a cognitive circle. Whatever the explanation, the phenomenon has become more mainstream with serious impacts. It relates in the field of health to the denial of HIV as the cause of AIDS; vaccination opposition. This is seen to be so serious that the WHO has published best practice guidance 'How to respond to vocal vaccine deniers in public'.

Perhaps more sinister than the open vaccine deniers is the argument in the AJPB Open Themed Research article by [David A. Broniatowski](#): 'Weaponised Health Communication: Twitter bots and Russian Trolls amplify the vaccine debate'. The article explores "how Twitter bots and trolls ('bots') promote online health content". It concludes that "whereas bots that spread malware and unsolicited content disseminated anti-vaccine messages, Russian trolls promoted discord. Accounts masquerading as legitimate users create false equivalency eroding public consensus on vaccination". As the article states "Health-related misconceptions, misinformation, and disinformation spread over social media, pose a threat to public health.

**Vignette 1.7** (continued)

...social media is frequently abused to spread harmful health content, including unverified and erroneous information about vaccines. This potentially reduces vaccine uptake rates and increases the risks of global pandemics, especially among the most vulnerable. ....Anti-vaccine advocates have a significant presence in social media, with as many as 50% of tweets about vaccination containing anti-vaccine beliefs”.

Other well-known examples of denialism relate to the holocaust, and here there is disturbing recent evidence that a significant proportion of the population now espouse the view that there was no holocaust.

Attitudes to evolution among creationists are also well-known. It would be a mistake to believe that denialism is a phenomenon which applies outside the University world as, indeed, deniers draw on and quote evidence from ‘academic’ research.

If ‘Denialism’, fake news, deep fake videos, nationalism and populism pervade all fields, how are graduates prepared to address and counter false assertions and fraudulent evidence no matter what discipline they are studying. Indeed, because the phenomenon straddles disciplines, it reinforces the need for learning and teaching to be more multi- and interdisciplinary so that insights are shared and fully understood. It also means that in all fields learning and teaching need to be more actively engaged with society and the communication of knowledge in ways which will engender trust and help to change mindsets.

The literature on Denialism focuses on ways in which accepted ‘truths’—HIV and AIDS, the holocaust, climate change, vaccination—are denied and the central theme is that ‘denialism’ needs to be combatted. What is perhaps overlooked is an aspect of ‘denialism’ which is closely related to the very nature of the academic world and research which should challenge and review received wisdom. If it did not, there would be no advances. A classic example is in Medicine. “It was a long-standing belief in Medical teaching and practice that stress and lifestyle factors were the major causes of peptic ulcer disease. Two Australian researchers, (Barry Marshall and Robin Warren), discovered the bacterium – *Helicobacter*

*Helicobacter pylori* – demonstrating that it caused more than 90% of duodenal ulcers and up to 80% of gastric ulcers. The clinical community, however, met their findings with scepticism and a lot of criticism and it took a remarkable length of time for their discovery to become widely accepted”. (Ahmed 2005). This aptly illustrates the dangers of polarised views. Marshall and Warren were in their way ‘deniers’. They made a scientific and medical breakthrough because they challenged (denied?) accepted practice and in their turn their discovery was subject to powerful ‘denialism’. They published their findings in 1983, but even as late as 1995 only 5% of patients with stomach ulcers were treated with antibiotics because the medical world was in denial about the evidence. Is this a lesson which contemporary medical students are taught?

An ongoing topic of dispute relates to human population growth. The UN population division projects that the global population will grow to more than 11 billion by the end of the current century. There is a counterargument that the UN is incorrect and that the human population will reach between eight and nine billion around the middle of the century and then begin to decline (Bricker and Ibbetson 2019). If proponents of this view are correct, then that presents a completely different challenge for society. While this prediction (Bricker and Ibbetson 2019), which does not carry the weight of the official UN projection, is many years in the future, the significance of the difference is such that it should prompt further research. It will undoubtedly raise intense controversy and denialism on either side. The whole issue of population growth and demography is an issue which is obscured in the rhetoric of the debate about migration in Western Europe. Politicians are generally wary, and indeed, refuse to acknowledge that the demographic profile in most Western European countries will mean that immigration on a large scale will continue to be a necessity, but how to present this to a population in which populist politicians have, in many countries, fostered hostility to migrants, is a continuing challenge. It is a challenge to the University world in Western Europe because it, too, will need to draw on international, academic and research talent to an increasing extent in the context of its demography.



## Artificial Intelligence

Artificial intelligence is again at the forefront of political and social dialogue. Its ramifications are not limited to the use of robots for production and social and domestic purposes. “AI systems permeate daily life: they drive cars, decide on mortgage applications, translate text, recognise faces on social networks, identify spam emails, create artwork, play games and intervene in conflict zones” (Reillon 2018, p.1). “Artificial Intelligence (AI) is transforming every aspect of our lives ... it promises to help solve global challenges like climate change and access to quality medical care. With these enormous benefits come real challenges for Governments and citizens alike ... and as it permeates economies and societies how can we ensure that AI benefits society as a whole?” (OECD 2019). “About 14% of jobs in OECD countries are highly automatable. Another 32% could face substantial change in how they are carried out... education systems will need to adapt to the changes brought about by automation... This includes skills such as cognitive and social intelligence and extends to the skills needed to work effectively in a digital context both as specialists and users of digital technologies” (OECD 2018). To take forward its work in this field the OECD (2018) has created an expert group “to provide guidance in scoping principles for artificial intelligence in society”.

In an article in *Research and Practice in Technology Enhanced Learning*—‘Exploring the impact of Artificial Intelligence on teaching and learning in Higher Education’, Stefan Popenici and Sharon Kerr contend that “The future of Higher Education is intrinsically linked with developments in new technologies and computing capacities of the new intelligent machines” (Popenici and Kerr 2017, p.1). The article is concerned with the impact of AI on learning and teaching practice and the extent to which funding pressures will push Universities to make increasing use of AI for administration and teaching. “The rise of AI makes it impossible to ignore a serious debate about its future role in teaching and learning in higher education and what type of choices universities will make in regard to this issue.” (p.10). While Computer Science and Software Engineering conduct high-level research in Artificial Intelligence, developments outside the University are driving change. As Popenici and

Kerr argue, this demands new curriculum and learning approaches in all disciplines.

An example of the implications and potential is a recent report from the UK Academy of Royal Medical Colleges: *Artificial Intelligence in Healthcare* (2019). In the chapter on Education and Training, the report argues that “The adoption of AI in clinical practice will inevitably impact the training and education of clinicians, both through enhanced technological opportunities and through a shift in fundamental learning needs as professional working practices change. Artificial intelligence could underpin sophisticated digital tools to support learning and development... (p.24). With the pace of advancement of medical knowledge, the sheer volume of new information exceeds that with which an individual can keep pace in real time. Artificial intelligence has the potential to analyse large datasets across multiple sites to condense information for the clinician for practical use. Combined with other digital technologies, AI could be used to personalise training by evaluating previous experiences, responses and outcomes to model the strengths and weaknesses of individual clinicians. Personalised medicine need not be for patients alone” (p.24).

The agenda for change which we have touched on is daunting and may be considered too eclectic but our object has been to highlight the tsunami of external and dynamic developments which are shaping the environment in which today’s and tomorrow’s graduates will live. They cannot shelter from the impact of the ‘isms’ or fake news, or fraud, or partial science, or the manipulation of data and technology, or denialism impacting on global health but they need the multi-disciplinary skills, understanding, insights and wisdom to manage a new world order. Above all they will need to appreciate that engagement is essential. Universities have failed to ask why so many of today’s graduates are not engaged. If the academic world is to respond to the tsunami effectively and deliver the goals of the Vienna Rectors declaration curricula, learners and teachers all need to engage and in doing so harness inter- and multi-disciplinary insights.

## An Overview of the Book

Sir Peter Scott in his Chap. 2 tests the truth or falsehood of the populism narrative by examining first the multiple strands subsumed under the label of ‘populism’ (and their many inconsistencies and even contradictions) and then the multi-form heterogeneity of modern Higher Education (with perhaps as many inconsistencies). Scott argues that populism is fuelled by opposition to elites, whether welfare state or neoliberal, which populists claim have let ordinary people down. In its more extreme forms, it amounts to a rejection of the liberal, secular and cosmopolitan values of modernity. In the eyes of many populists, universities are bastions of these elites, and a major source of these values. As a result, they appear to have been caught ‘on the wrong side of history’. For universities used to regarding themselves as at the cutting edge of progress, this has been an uncomfortable experience. However misconceived, Scott maintains, this populist critique cannot be brushed off. Instead, he further suggests, Higher Education should confront the populist challenge by redoubling its efforts to promote fairer access, a more inclusive curriculum and more flexible forms of learning and teaching, more open and democratic forms of research.

In their Chap. 3 Dholakia, Firat, Ozgun and Atik reflect on the transformation of Higher Education institutions in USA over the past decades in the context of the ascendance of neoliberal governance and management. They provide analytical as well as practical perspectives on how to comprehend, engage with, and ameliorate the current crisis of Higher Education. Dholakia et al. first establish the social functions of Higher Education in modern liberal public life. They posit the ideological traits of neoliberalism as a new governance and management that bends and reshapes the Higher Education system. It reconfigures the curriculum, educational content and the social/cultural life of the universities in three basic ways: from non-market to all-market forms, from exchange processes to competitive processes, and view of the market from a ‘natural’ to an ‘ideal’ (indeed, imperative and essential) form. These transformations ripple through administrative/economic dispositions that alter the work processes and work conditions at universities. Suggesting these changes

affect all aspects of universities—the governing bodies, the faculty or academy, students and entities external to the university—the authors discuss ameliorative paths for recovering and restoring the public functions of the Higher Education system for social progress.

Baldock, in his Chap. 4, discusses claims that the UK system of Higher Education faces a crisis of both legitimacy and adequate resources. He compares competing explanations for this possible ‘crisis’, placing them in the context of changes to the funding and regulation of universities. Since the beginning of the twenty first century British Higher Education, and in particular its universities, have had a problem of declining incomes and rising demand from increasing numbers in the population aged between 18 and 24. A high proportion of institutions are in financial difficulty and are reducing staff numbers. At the same time there has been growing criticism of universities, from within for becoming too managerialist, commercial and market focussed, and from outside for failing to meet key needs of society and the economy, such as equality of access for those from minority or disadvantaged backgrounds, and the production of graduates with the skills required by employers. Some commentators have attributed these challenges to the recent strength of right-wing and populist forces and ideas which question the role and usefulness of Higher Education and which support increased government control and regulation. Baldock argues instead that the current problems of universities are not new, but have a longer history, and can be better explained by incremental changes to the funding of Higher Education over the last seventy years.

In Chap. 5, Rachlin discusses political fault lines and issues of a new political era, arguing that populism has been an unexpected and dominating political phenomenon in the first two decades of the century. Some even call it a political revolution or a disruption like other disruptions the world has encountered in this period. According to Rachlin, populism as a political force that takes shape under certain economic and social circumstances is not new, but it is still a challenge to cope with and define in the context of modern Western democracies. Populists have succeeded in gaining real power as presidents, prime ministers and members of government coalitions. They have achieved these positions through democratic elections and not by coups or violence. They seem to be

willing to play by the accepted rules in pluralistic, democratic societies, but in some countries in Europe and overseas, populist leaders have tended to follow a course towards nationalism and authoritarianism and thereby become a threat to established liberal democracies. Rachlin warns “that is not to say that it will have a lasting impact on political and social development, but it is impossible to ignore as one of the symptoms of our time”.

Chapter 6 was an address by the late Rt Hon George Bruce OBE, which was given to an international conference on ‘Integrated Border Management’ in the Republic of Moldova in 2007. Since then the issue of ‘border control’ has become a central feature of global populist rhetoric driven principally by what is portrayed as the threat of uncontrolled and large-scale migration. This was a key factor in the UK vote to Leave the EU in 2016. It has fuelled the success of right-wing parties in Europe, certainly contributed to Donald Trump’s victory in the USA with his references to the Wall and can most recently be seen in new immigration and citizenship legislation in India. For these reasons, the book editors thought that it would be appropriate to include an edited version of the address because Bruce George identifies other factors relating to border security and because the public discourse has for the most part drowned out rational discussion of migration. Although none of the other authors in this book tackles the subject, it is the editors’ view that it represents another critical issue with which tomorrow’s graduates will need to engage in objective, evidenced-based discourse.

Fast and Clark II build their Chap. 7 on extant empirical material and their own experiences in universities for more than 35 years, mainly in business economics. They have been teaching, supervising, building programs, members of study boards, program coordinators, and administrators of programs; their experiences are from the everyday of life in those programs and being a part of the political, strategic and discussions of teaching and universities programs. The findings arise from analyses of those experiences and reflections on what education has become; what the problems are; and what it should and/or could be. Fast and Clark II maintain, it is all about politics and engagement. Since the mid/late 1980s, there has been, from a political view, a desire to have more control over the universities. This stems from the cost of public universities, to

ensure that they become more focused on economic growth, production and innovation. The authors argue that this has had an influence on programmes, content, number of students and assessment. Fast and Clark II discuss these challenges and contradictions, making a case for theory and philosophy of science as a mitigating response.

In her Chap. 8, Gregersen asks ‘Is University Management Part of the Problem or Part of the Solution for PBL Development and Critical Thinking?’. She addresses this question by discussing opportunities and barriers for management to support and develop Problem Based Learning (PBL) curriculum as a response to the populist/political agendas that influence contemporary society. According to Gregersen, at the university level, populist agendas are reflected in increasing marketization, governance principles based on new public management, and growing expectations to ‘deliver’ on a short-term basis world class graduates and research applicable to local industries and provide solutions to the world’s grand challenges. She structures her discussion around three propositions. One, disciplinary silos in education and research need to be opened up to stimulate cross-disciplinary collaboration in order to practise PBL when solving important societal problems. Two, all three university missions—teaching, research and external collaboration—need to be synchronised and integrated to develop a true-hearted PBL approach. Three, university governance and management structures need to be aligned with a PBL approach to allow for experiments and critical thinking.

In Chap. 9, Sorensen discusses the problem-based learning model from the perspective of (business) employers, arguing that the core issue is how well universities serve the needs and demands of business employers for employable experts/managers and new science-based knowledge. He aligns his discussion with the political agenda regarding the third mission of universities, i.e. their contribution to societal development. Sorensen outlines the nature of what is called the ‘socially engaged university’, focusing on the synergy between research-generated/science-based knowledge and practical/experiential knowledge. He identifies and discusses three groups of collaborative problems and tensions: (a) problems of information, communication and visibility, (b) incompatible organizational structures and (c) basic conflicts in roles, values and orientations. Sorensen finds that the dominant mode governing collaboration

between firms and universities is that of strategic alliances, acknowledging that such alliances present potential for synergy as well as tension and outright conflict. Sorensen suggests, special efforts are needed to realise the potential synergy resulting from the collaboration.

Kriegsbaum and Deak—two graduate students who studied in a PBL environment at Aalborg University—discuss and reflect in their Chap. 10 on their experience and perception of the PBL environment. Their PBL experiences were gained within the field of International Business Economics. To understand their perceptions, information is provided on their cultural background, previous study-related experiences and current work position. They identify and compare the key competences which were the objectives of the teacher with those that they acquired during they study and compared these with the competences which they found they needed in their employment. They reflect on the extent to which their experience in learning, being evaluated and assessed in a PBL environment, project and group work, independent problem formulation and overall freedom to focus on self-directed learning has equipped them for their employment.

Christensen, in his Chap. 11, provides a critical assessment of the use of internships and discusses how one model of practice-learning works. Practice-learning is often mentioned as superior to pure academically based learning, and students demand more practice oriented teaching and learning methods. This makes education institutions adopt and market practice-learning models uncritically as integrated parts of their curriculum. However, as Christensen maintains, there are differences in the learning effects from different types of internships, and uncritically adopting any internship model and any volume of learning through practice is likely to be counter-productive. The type of university students-industry collaboration Christensen describes is positively evaluated by participants, and seems to spur problem-solving capacity, which is likely to be productive in the specific collaboration, in the longer term, and potentially in other contexts. Christensen argues, though, that the benefits of this type of learning are not harvested without investments and costs. Hence, perceived benefits should be evaluated against the associated costs, including the learning that the internship substitutes. In addition to questioning the universal benefits of internship programs,

Christensen identifies problems in measuring the outcomes of such programs.

In Chap. 12, Dreher and Haseloff focus on the question of how individuals can be enabled to create a responsible relationship between themselves and the digitalized value creation with which they are inevitably confronted. The authors discuss how Artificial Intelligence has a profound impact on the nature of work and more sophisticated methods of production, which have implications for the role of the skilled worker who requires high specialist skills and, because of the complexity of the processes, a new approach to problem formulation and solution. Algorithm creation, optimisation and legitimisation form the triumvirate of a new form of professionalism in times of digital value creation. Dreher and Haseloff view PBL as an essential concept to support educational processes in this respect. They identify performance evaluation as a particular challenge for the implementation of PBL and discuss possible solutions with particular consideration of Rauner's COMET (Competence Measuring and Training) concept.

Daskou and Tzokas examine the ontology of social inclusion in their Chap. 13, applying the Propelling Social Inclusion Framework (PSFI) in the context of education. The authors maintain that social inclusion is imperative for contemporary societies and education plays a critical role in providing the relevant competencies required to promote inclusion. Through an eclectic approach, Daskou and Tzokas highlight complex issues in the wider social inclusion debate and identify PBL as an appropriate pedagogy to enable individuals to become included in societal domains by cultivating their capabilities. They illustrate how these issues can be tackled through the unique opportunities offered by PBL. They include institutional and subject perspectives in two case studies of universities that offer educational services to students, to facilitate their social inclusion in developed economies. The authors put forward several propositions that emerged from this analysis, leading to a re-evaluation of the role of universities in combatting social exclusion, with recommendations of PBL techniques suitable to promote social inclusion, at various levels of study. Daskou and Tzokas offer directions for PBL-supported curriculum development in Higher Education to promote social inclusion.



Møller, Lauridsen and Spedtsberg explore the relationship between meaning, existential success and validity in the lifeworld of individuals in their Chap. 14. They view the current populist trends as a result, among other things, of the amount and the pace of information in post-modern societies. It appears as if it is irrelevant whether statements are valid or not if their invalidity is only exposed after their desired effect has occurred. Validity is challenged by the countless opportunities to address different markets in different ways. Concerning the success of a message, it appears that meaning and the emotional response created by a message are more important than the validity of the statement. The authors analyse meaning in the lifeworld of entrepreneurs and students at Aalborg University since the existential success of entrepreneurs highly depends on their ability to create meaning for themselves and their surrounding collaborators. Because the entrepreneurs are all taught in Aalborg University's problem-based learning model, the authors included this pedagogy in the discussion. The analysis shows how meaning is created and how the relationship between meaning, validity and success is dialectical and mutually dependent. Based on the analysis, Møller et al. pinpoint elements that might serve as philosophical guidelines for validity in these populist times.

Jørgensen and Boje argue in Chap. 15 for 'Storytelling Sustainability in Problem-Based Learning'. An important aspect of PBL is to learn how to be responsible and answerable. Such competences can only be learnt if students interact with the world. This ethical purpose is however often forgotten in PBL rhetoric. The authors address this in the chapter. The seventeen UN development goals are seen as a political materialisation of the highest principle of all being, which is identified as the eternal recurrence and hence natality. This ethical principle is radical and implies multi-species storytelling, i.e. a politics of the earth instead of the human all-too-human dominance that has caused the 6th extinction event that we are currently living through. The challenge of PBL in regard to sustainability is to work out new institutional, economic and material practices in which the UN goals can be enacted. Jørgensen and Boje propose a terra-political framework, which implies regrouping and prioritizing the UN development goals. Terra-politics is a multi-species storytelling, which can be organized as concrete problems of the earth, which are always inherent and entangled with the problems that students identify

through self-directed collaborative learning processes. A terra-politics is in this sense at the heart of almost any problem that students are dealing with. Jørgensen and Boje further suggest that a model of true storytelling can be extended to a multi-species storytelling that we describe in four phases and seven principles. True storytelling becomes a model that can bridge strategies, communities, spaces, geographies, nature and people. According to Jørgensen and Boje, stories are seen as collective, relational and material and require the community of a Terrapolis in which being-togetherness in time-space is a guiding principle for shaping a sustainable future.

In his Chap. 16, Turcan puts forward a Holistic Problem-Based Learning (HPBL) model that integrates research-based teaching and learning and teaching-based research, and re-defines the PBL process. It builds on the Aalborg University PBL model that has been part of the Aalborg University DNA since the university's inception in 1974 and the revised Bloom's Taxonomy to redefine the PBL process. Turcan reflects on his personal experience in engaging with PBL from the moment he started his full-time position at Aalborg University in 2010. Before discussing HPBL, the author sets the stage with a review of the 'liquid times', highlighting the impact of newness and uncertainty—quintessential by-products of these 'liquid times'—on collective behaviour, free will, ascertaining what the future holds for our graduates and conjecturing how to mitigate these challenges. As part of the HPBL discussion, Turcan introduces the basic principles, pillars a PBL model rests on. He concludes by underlining pointers for future research, policy and practice.

In the concluding Chap. 17 of the book, 'In My End is My Beginning', Reilly and Turcan review the key themes explored in the wide-ranging contributions to the book, the aim of which was to stimulate research, discussion, debate at the intersection of populism and PBL. As has emerged, this was easier said than done. It seems that extolling the virtues of the PBL methodology is natural; however, seeing and engaging with the challenges of populism through PBL could be said to be less natural and more 'work in progress'. There are recurring themes relating to the role and purpose of Higher Education, the impact of populism in new management and governance and neo-liberal market-driven structures. The need for interdisciplinary curriculum and learning and teaching is

another theme and this brings with it an array of challenges for structures, curriculum teams and staff development. Unfortunately, there is little evidence to support the view that PBL prepares graduates to address societal challenges. Indeed it is difficult to escape the conclusion that the majority of today's and tomorrow's graduates may be as vulnerable to populist rhetoric as non-graduates, precisely because they are not engaged in a process of consciousness raising through their curriculum. Reilly and Turcan suggest that this poses a number of questions about the nature of and motivation for 'engagement', which might be the subject of further study.

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# Part II

## Populism in Globalized World



# 2

## Making Sense of Emerging Populist Agendas

Peter Scott

### Introduction

Ever since the unresolved financial crisis of 2008, and the deep economic recession unprecedented since the Great Depression of the 1930s that ensued, the forces of populism have been gathering. In the middle of the twenty-first century's second decade they have burst onto the political scene—although in multiple, incoherent and confusing forms. In 2016 the United Kingdom voted by a narrow margin—51.9 to 48.1 per cent—to leave the European Union after a campaign marked by false promises and invented (and exaggerated) fears. As a result, the UK's political destiny has been wrenched into a new path. In the USA, Donald Trump was elected President (thanks to the quirks of the Electoral College; his Democrat opponent received three million more votes). Since his installation in the White House the USA's destiny too has also been wrenched into a new—and highly erratic but illiberal—path. In France, President Emmanuel Macron, a centre-left globalist, has been challenged by the

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revolt of the so-called *gilets jaunes*, an unstable coalition of the angry and disenchanted supposedly representing *La France profonde* but spear-headed by activists of the far right (and, less certainly, far left). In Germany a new anti-immigrant and far-right party, *Alternativ für Deutschland*, has emerged to irritate, if not challenge, the right-left centre that had been in power for almost three political generations. In Poland, Hungary, Turkey, Brazil and the Philippines neo-nationalist and anti-globalist parties have slouched to power. These disparate movements, misleadingly perhaps, have been corralled together under the label of ‘populism’.

The elite-mass higher education systems developed in the second half of the twentieth century in almost every developed country, and most especially at their North American-Western European core, have found themselves menaced by this irruption of ‘populism’:

- First, because they were (and are) largely dependent on public funding, their resource base has been eroded by the austerity policies pursued by most Governments, left as well as right, since the 2008 crisis. Worldwide, anti-Keynesianism has become the dominant economic model. Unaddressed (and increasing) social inequality and stagnant real-terms wages have spawned a toxic anti-taxation, even anti-State, culture which only a few brave Governments have struggled to resist. ‘Populist’ political movements have embraced this hostility to the State, dominated in their eyes by global elites.
- Secondly, scientific knowledge, and the professional worlds that have been produced by and also supported it, have been blatantly undermined by (often cynical) attacks on ‘experts’. ‘Populism’ has peddled simple solutions, despite H L Mencken’s celebrated aphorism: ‘for every complex problem there is an answer that is clear and simple—and wrong’. New communication technologies and cultures, and especially social media, have played their part in this explosion of anti-intellectualism—the Tweet in opposition to the scientific paper or scholarly monograph; the proliferation of on-tap ‘experts’ who buttress each and every ideological prejudice; the virus of ‘false news’. These developments have posed a radical, even existential, challenge to an academic system and culture rooted in disciplined critical enquiry and respect for scientific evidence.



- Finally, universities have apparently found themselves on the ‘wrong side of history’—to their intense discomfort. Even the most elite universities, including those founded in pre-modern times, bear unmistakable marks of the twentieth-century welfare state and the post-1945 global order. Modern higher education systems have been decisively shaped by the actions of that State and that order. They have been key instruments of the liberal (even collectivist) and internationalist (even cosmopolitan) values that dominated the pre-‘populist’ age (and still do, although in an enfeebled form). They provided a *habitus* for socially mobile and economically fortunate ‘winners’; the fewer left behind by the emancipatory action of mass expansion the greater their resentments.

True or false, this has become a dominant narrative—insurgent and near-triumphant ‘populism’ on the one hand; universities under attack, or at any rate on the back foot, on the other. The purpose of this chapter is to test the truth or falsehood of this narrative by examining first the multiple strands subsumed under the label of ‘populism’ (and their many inconsistencies and even contradictions) and then the multi-form heterogeneity of modern higher education (with perhaps as many inconsistencies). Its conclusion will ask, if this supposed ‘Cold War’ between ‘populism’ and the academy has indeed been overstated, what actions our universities nourished in the gentler progressive environment of the second half of the twentieth century can take to regain their social momentum in the contested cauldron of the twenty-first century?

## The Many Faces of ‘Populism’

The shock and surprise of twenty-first-century ‘populism’ have been intensified by the contrast with the stability and predictability of the so-called ‘post war settlement’ in the second half of the twentieth century. This ‘settlement’—at home the elaboration of the welfare state and expansion of State planning and regulation, and abroad the stasis of the Cold War and the retreat from empire—seemed at the time part of a compelling narrative of ‘reform’ and ‘progress’ reaching back into the nineteenth

century, which had been temporarily interrupted by the horrors of two World Wars. Now history was back on track and the future seemed assured. For three or more decades after 1945, evident successes silenced potential critics—in France *les trente années glorieuses*; in Germany the economic miracle and consolidation of the social market; in the USA Jack Kennedy's 'Camelot'; and Lyndon Johnson's 'Great Society'. Only perhaps in the UK was the march of progress less certain, although even here 'modernity', in its many guises but most conspicuously in the cultural field, appeared to have definitively and irreversibly arrived. It was not until the 1980s, and only in some countries, that this progressive narrative was challenged as memories of pre-war recession and wartime solidarity faded in the collective memory. After 1989 the implosion of Soviet Communism also weakened the compelling need for maintaining social tranquillity in the West through liberal and social democratic reforms.

Starting in the 1990s two associated phenomena emerged. The first was the apparently remorseless advance of globalisation (Beck 2000). Globalisation undermined the power of national Governments to shape the direction of their economies, shifted the world's manufacturing centre-of-gravity from high-cost to low-cost countries, and greatly enhanced the power of global finance. It also undermined traditional identities rooted in class, nation and gender, enabling new and more fluid identities to be constructed (apparently by individuals but, in retrospect, powerfully shaped by global media). The second was a challenge to progressive politics. The previous political stability, centred on large and moderate centre-right and centre-left parties, was shaken. Social reform and collective actions were reinterpreted as curbs on economic dynamism and individual enterprise and also as corroding an essential sense of personal responsibility (and even morality).

This challenge was labelled 'neo-liberalism', even though it contained multiple strands, progressive as well as reactionary (Harvey 2005). To some degree 'neo-liberalism', by reasserting the primacy of markets over State planning and regulation, was a necessary ideological consequence of globalisation, an acceptance of its irresistible logic. In the emerging global economic order, nations struggled to sustain the social expenditure that had been at the heart of the 'post war settlement'. So-called

'liberalisation'—lower taxes and reduced regulation, the privatisation and out-sourcing of public services, the 'marketisation' of residual public services (Simpson and Marinov 2016)—seemed imperative. 'Neo-liberalism' was at hand to serve as a convenient ideology to describe these apparently inevitable economic trends (and their far-reaching social and cultural consequences). An extensive academic literature on the replacement of the welfare state by the 'market state', and the emergence of the regulation state, emerged to validate this apparently irreversible shift (Razin and Sadka 2005).

The banking crisis of 2008, and consequential economic recession, marked a new break point, even if their significance was insufficiently recognised at the time. In this crisis of the 'neo-liberal' order were planted the seeds of the 'populism' that only fully emerged almost a decade later (Crouch 2011). As has already been pointed out, the response of most Governments, after short-term (and incomplete?) repairs to their banking systems, was to cut State borrowing, lower taxes and consequently reduce social expenditure. Worst hit were basic education, social security, public housing and community services. The effect, intended or not, was to widen income differentials between the rich, who benefitted disproportionately from tax cuts, and the poor, who depended more on public services. Geographical inequality also increased, intensifying the damage to older industrial cities, regions and communities that had already been 'hollowed out' by the effects of globalisation, typified by America's 'rust belt'. In Europe, former strongholds of the traditional social democratic left became particularly prey to 'populism'. As a result, a new discourse of the 'people who have left behind' emerged to express their simmering discontent.

Increasing flows of refugees and other immigrants from 2015, the result of increasing global inequality and ill-considered military interventions by America and some European States no longer inhibited by the Cold War standoff, further compounded this discontent as well as intensifying already existing prejudices. Immigrants and existing minority communities became demonised as convenient scapegoats for wider economic and social dislocation. Cultural factors were also important as traditional forms of identity and community, already fractured by post-war modernisation and then shredded by globalisation, were further eroded

by the post-2008 recession and the austerity policies pursued by most Governments. The result was a reassertion of more restrictive forms of nationalism. Prominent examples included Hungary, which found itself a way-point on refugee and immigrant routes into European heartland; Poland, where centuries-old resentments about the suppression of its national identity re-emerged; Turkey, where Atatürk's secularism was challenged by new forms of political Islam and neo-Ottomanism; and even America with President Trump's clarion call of 'America First', waking the sleeping ghosts of isolationism, and his demands for a 'wall' along the border with Mexico.

However, the coherence of these 'populist' movements is unclear. Each arose in particular national contexts, as the examples just listed indicate, and had particular causes, even if they shared general drivers. A recent attempt to categorise 'populism' published in *The Guardian* in the UK, which was based mainly on an analysis of the rhetoric of 'populist' leaders, demonstrated the diversity of its strands (Lewis et al. 2019). It is far from obvious that the FN in France or AfD in Germany have anything in common with Chavismo in Venezuela except their repudiation of mainstream politics, whether of the social democratic/welfare state or neo-liberal/market state variety. Perhaps a better way to regard 'populism' is as insurgent but disparate movements, some of which have gained power accidentally and for specific rather than general reasons. However, even such a characterisation may not be loose enough. Neither Vladimir Putin's regime in Russia, a strange mixture of post-Soviet great-power nostalgia, social (and religious) conservatism and near-gangster capitalism, nor Modi's Government in India, again a curious blend of Hindu traditionalism and economic modernisation, can accurately be described as 'insurgent movements'.

## The Roots of Populism

To a significant degree, therefore, 'populism' may be largely a media construct, an attempt to identify (and thereby magnify) the common features of these various movements at the expense of their key differences. However disparate and incoherent these movements, it is less difficult to

identify the general conditions against which they are in revolt. Two are especially significant, in one of which higher education is deeply implicated. The first is as a reaction to growing inequality of incomes, and more especially, wealth, which began in the 1980s and has accelerated since the turn of the century. The French economist, Thomas Picketty, has demonstrated that disparities of wealth have returned to levels last seen in the late nineteenth and early twentieth centuries (Picketty 2017). Low-tax regimes have enabled renewed inter-generational accumulation of wealth (which is why Picketty focussed on ‘capital’ in the title of his main book). At the same time, the notions of ‘meritocracy’ and ‘social mobility’, which provided at least some cover, and legitimacy, for this growing inequality have been radically weakened. Access to high-status and high-pay jobs has continued to be dominated by narrow elites with— inherited—financial, social and cultural capital. Arguably, and with some statistical backing, this dominance has increased.

Although the total volume of employment has increased in many countries, including the UK, many of the new jobs created have been low-skill and low-wage, often on precarious contracts, and also of spurious ‘self-employment in the so-called gig economy, as the sluggish improvements in productivity suggests. The proletariat has been replaced by the so-called ‘precariat’. Only limited growth has taken place in the number of high-grade ‘symbolic workers’ drawn from a widening social spectrum, which had been predicted by Robert Reich (Reich 1992). At the same time for the majority of employers there has been almost no wage growth in real terms for more than a decade, which has been compensated for to some extent by the more ready availability of credit, leading to escalating levels of personal debt. The economic distress created by the loss of high-pay, high-skill, secure employment and real wage stagnation has been compounded by the explosion of pay for senior executives. Together they have produced a toxic cocktail of resentment that has fuelled ‘populism’.

The second general condition, paradoxically, is the establishment of mass higher education systems. Once regarded as an instrument of social progress and individual emancipation, the expansion of higher education is now seen by populists as having opened up a new divide, alongside the widening gulf between ‘haves’ and ‘have-nots’ in economic terms,

between ‘haves’ and have-nots’ in terms of educational level. There are strong links between educational level and political attitudes—graduates tilt to the left, and cultural attitudes—graduates are also more likely to espouse liberal and cosmopolitan values. This divide has been evident in the rise of ‘populism’. In the last US election two-thirds of those without college degrees voted for Donald Trump. Since, the election universities, and in particular elite universities, have been in the new President’s gun sights along with the ‘liberal’ media such as *The New York Times* and large parts of the US Government itself. In the UK three-quarters of those without post-school qualifications voted to leave the European Union, while three-quarters of graduates voted to remain in the EU (Moore 2016; Becker et al. 2017). A recent 12-nation study across Europe found that almost 60 per cent of those defined as having ‘low’ educational qualifications had broadly Euro-sceptic views, compared with only 30 per cent of those with ‘high’ educational qualifications. Broader surveys of social attitudes among graduates show they tend to be more ‘liberal’ on a range of issues such as immigration, divorce and gay rights.

Populism, therefore, is both a response to increasing inequalities in income, capital and life-chances, an apparently inevitable effect of globalisation (at any rate, as interpreted in neo-liberal terms), and also a protest against the failure of Governments to address these inequalities. Global elites, international organisations and Government itself are the villains in the populists’ playbook. But, more worrying perhaps, populism also has some characteristics of ‘culture wars’, between the educated, liberal and cosmopolitan (‘citizens of nowhere’ in the striking phrase of the UK Prime Minister Theresa May) and the less educated, less liberal and less mobile, socially and geographically (‘citizens of somewhere’)

## Challenges for Higher Education

The rise of populism in the twenty-first century presents the mass higher education systems that have been developed since 1960 with a number of serious, even existential, challenges. The first is socio-economic—the extent to which these systems are fit for purpose in an inclusive and democratic society. The second is cultural or ideological—how does higher

education address concerns about ‘modernity’ in its widest sense? Related to this second challenge is a third—how can universities continue to occupy public space in which common interests can be pursued rather than sectional advantage or individual gain?

## The Socio-Economic Challenge

The first and greatest challenge to higher education, therefore, is to combat the populists’ narrative that, despite half a century of mass expansion, it has remained a ‘middle class game’ (Boliver 2017). Universities must find a convincing response to the populist (and, of course, conservative) critique that mass expansion has led to the consolidation rather than the erosion of social hierarchies, first, by protecting and even entrenching the privileges of traditional elites and, secondly and more seriously, by leading to the formation of a new ‘graduate class’ which has increased the exclusion of the less fortunate (Scott 2016).

Part of that response certainly must be to challenge this interpretation of the effects of mass higher education, that higher education has remained a ‘middle-class game’. Socio-economic class structures and occupational patterns have fundamentally shifted since 1945 and, even more decisively, the 1980s–2000s. As a result, the traditional working class has shrunk and the ‘middle class’, in its broadest sense, has expanded. The expansion of higher education is one response to the reduction in the volume and proportion of non-graduate jobs, and opportunities for school leavers. The alternative would have been much higher levels of youth unemployment. This expansion has also played an important role in providing channels for social mobility. The growth of higher education has reflected the demand for more highly skilled workers in a post-industrial high-technology economy. Seen in the light of these social and economic evolutions, it hardly seems surprising that higher education, even in its mass form, still appears to be a ‘middle-class game’. The ‘game’ and the middle classes have both been radically transformed in the past half-century.

Mass higher education systems have also played a key role in promoting, and producing, social mobility. Some previously disadvantaged

groups have made spectacular gains. The most significant example is women who as late as the 1960s and 1970s were seriously underrepresented in colleges and universities but now make up the majority of students. Their experience of higher education has been both cause and effect of the revolution in gender relations. Some ethnic-minority groups have also made gains, with some 'over-represented' in higher education compared with their shares of general populations. The fact that, certainly in the UK, white middle-class males feel threatened by these advances is evidence of their real impact.

However, while resisting populist critiques and insisting on the substance of its socially progressive and emancipatory effects, higher education should also be honest about its deficiencies. A stubborn access gap remains. In most developed countries applicants from the most socially privileged groups are between three and four times more likely to be admitted than applicants from the least socially privileged groups. In the case of access to elite universities that gap is much wider. To some extent, the focus on female and minority representation has diverted attention away from these underlying social-class differences. Even the undoubted advances by women and (some) ethnic minorities should not be overstated. Minority students still remain concentrated in lower-status institutions, and tend to be under-represented in elite universities, even in the USA after more than two generations of affirmative action. Serious issues also remain about the concentration of female students in some disciplines, which is one reason for their under-representation in some elite professions.

Higher education, therefore, must also acknowledge the force of other critiques of its social effects popular among both populists and conservatives, which of course are overlapping groups. The formation of a 'graduate class', both in terms of credentialised skills and of social habits and cultural attitudes, has opened up new divisions. In democratic societies in which experience of some form of post-secondary education is close to becoming a human right, because without it full participation both in economic and political life is sharply constrained, the condition of those who are excluded, or exclude themselves, must be a major concern. However over-simplified the public discourse about the reasons for the rise of populism, this substantial minority of those excluded from higher



education, for whatever reason—a majority among older people because of more limited opportunities when they were young—is clearly a significant driver, as voting patterns for Donald Trump in the USA and Brexit in the UK demonstrate.

Paradoxically, in the recent past, higher education may have been better placed to address these concerns convincingly. In the 1990s and 2000s the need for ‘widening participation’, by promoting fair access, enjoyed a higher priority among university leaders than it currently enjoys. To some extent, this higher priority was a response to the then dominance of centre-left political parties. Universities bent with the political wind. In the second decade of the twenty-first century that dominance has been replaced by that of centre-right parties anxious both to implement austerity programmes to ‘restore’ public finances and to appease populist insurgencies. As a result ‘widening participation’ policies have received less emphasis. Universities have responded to this shift by adjusting their own priorities.

At the same time economic insecurity and increasing global competition have given rise to a new discourse, of ‘world-class’ universities and research. Governments around the world have endorsed this new discourse. The proliferation of ‘excellence’ initiatives, code for the concentration of research in elite universities, around the world is plain proof. Even more so than in the past, universities have come to be regarded as producers of competitive advantage, even if previous experience suggests that the links between higher education and research, technology and economic growth are too complex to be reduced to simple causations.

Two other significant changes have taken place. The first is that investment in higher education has tended to be targeted on supposed ‘centres of excellence’ rather than more widely spread across the whole of higher education, although once again past research suggests that raising overall educational levels has a greater impact on future economic growth. The second is that the stronger belief in the beneficial effects of ‘competition’, in almost any arena, has led to demands to identify ‘winners’—and, by implication, ‘losers’. As a result, university ‘league tables’ have captured the political imagination and shaped the behaviour of university leaders. Neither change has been congenial to efforts to open up access to higher education to more disadvantaged social groups. Both changes have focused attention on elite universities with the least diverse student

populations and away from those institutions that have done most to widen higher education's social base.

A second critique, more popular among conservatives than populists, is that the expansion of higher education has failed many students, in the sense that graduates from lower-status institutions, where the majority of 'new' students are concentrated, receive credentials that are of little or more limited 'value' (as judged by success in labour markets). Unemployment among graduates, and under-employment (graduates in so-called 'non-graduate jobs'), are alleged to be rife, even if this is only feebly supported by careful analysis of employment statistics (Brown and Lauder 2016). In those countries where students are charged high fees leading to high levels of personal debt among graduates, this alleged 'failure' is compounded. The logical action that would follow from this second critique is that higher education should be scaled back and fewer students admitted to higher education. Leaving aside the impact on the supply of skills and on economic growth, any significant reduction in the present scale of higher education would have a greater impact on opportunities for students from more socially disadvantaged groups—and swell the ranks of the excluded and, therefore, potential recruits to populism. The argument, which is often heard, that if the number of places in universities were to be reduced more places could be made available in technical and vocational education, is only half convincing. Such a shift, while preserving the total number of places available to secondary school leavers, would have the inevitable effect of exacerbating the divisions between high-status university education, in which students from socially privileged groups are concentrated, and lower-status technical and vocational education, with higher concentrations of students from socially disadvantaged backgrounds. This heightened social segregation in post-secondary education would sharpen the populist challenge.

## **The Cultural and Ideological Challenge**

The second challenge arises in the intellectual, cultural and ideological domains. It comes in three parts—an embryonic but potentially existential challenge to the core cognitive values of the academy; nativist

opposition to what are perceived to be its cosmopolitan values; and, at a more practical level, a challenge to the organisational culture of higher education as reflected in historic funding patterns, and its governance and management, and, more broadly, the idea of a 'public university'.

The cognitive challenge is the most severe. There are many contrasting theories of how true knowledge is generated—from the inductive reasoning espoused most famously by Francis Bacon in the seventeenth century, which formed the basis of the experimental methods of the scientific revolution, to the themes of provisionality and consequently falsifiability preferred by Karl Popper, which maybe reflected the greater fragility of twentieth-century thought, or Thomas Kuhn's concept of the contrast between paradigm shifts and 'normal' science, which to some degree combined Baconian induction and Popperian falsifiability (Popper 1992; Kuhn 2012). However, all share a common characteristic rooted in the Socratic 'I know that I do not know'. The nature of academic and scientific life is an encounter with the (currently) unknown. This scepticism is at the root of all scientific research and critical enquiry in the humanities, and also of the independent learning that universities seek to develop in their students. In past centuries these core cognitive values have often been challenged by different absolutist ideologies grounded in 'received wisdom' and pre-ordained beliefs—whether the Counter Reformation Catholic Church or Stalinist Russia. Some of the strands within contemporary 'populism' potentially represent another challenge with their bias against so-called expert or elite knowledge, their search for uncomplicated truths and their naive tolerance of 'fake news'.

However, this potential challenge must be qualified in two respects. First, universities themselves have never been uncontaminated by 'received wisdoms'. The taxonomy of disciplines, and the hierarchies of 'excellence' within them, can be regarded as imposing over-rigid frameworks on wide-ranging critical enquiry, as radical critics have not been slow to point out. The provisional knowledge of Popper's hypotheses has sometimes been difficult in practice to challenge because of the conservatism, even resistance, of powerful interest groups rooted in academic hierarchies and discipline-bound 'scientific communities'. At a more practical level theoretical frameworks needed meaningfully to organise knowledge, and consequently to manage its progress, can themselves

become straitjackets over-elevated in their status. Attempts to break down these hierarchies of formal academic knowledge, and to rescue oppressed knowledge, can themselves breed new orthodoxies that inhibit alternative ideas. Especially in the humanities and social sciences, knowledge can never be divorced from questions of morality which will always, and rightly, be contested. While it may be possible, indeed essential, to think the unthinkable in the pure sciences, that is not always an option in humanities and social sciences—as the qualifiers ‘human’ and ‘social’ indicate. The permissible limits of intellectual relativism, which hesitates to make choices of absolute (or relative) merit, or of social constructivism, which emphasises the contingency and so malleability of ideas, are also difficult to navigate and police.

Secondly, some strands within ‘populism’ are not obviously rooted in an anti-intellectual culture that prefers ‘false news’ to empirical evidence. Not all are climate change or Holocaust deniers. Instead they conceive of themselves as actively resisting what they regard as the ‘political correctness’ of contemporary higher education, and its alleged betrayal of traditional high academic culture. Objections to the arrogance, and condescension, displayed by elites, whether intellectual or socio-political, mingle confusingly with more particular objections to new disciplines such as gender or black studies, which populists see as providing intellectual cover for career advancement by minority groups that threaten traditional social hierarchies. In these ‘culture wars’ more sophisticated populists often position themselves as guardians of academic excellence in the face of a rising tide of mediocrity. The base of populism, its core support, may be found among the less educated. But its leaders typically are products of elite universities. The result is a complex set of relationships difficult to reduce to an outright challenge to the academy’s cognitive values. Although there is a distaste among populists for the provisionality and consequently indeterminacy of scientific knowledge—they seek simple certainties—their resistance is also to more concrete trends within the contemporary university.

There is no such ambiguity about populism’s distaste for the ‘cosmopolitanism’ in which modern higher education systems are deeply implicated both operationally and normatively (Held 2010). Universities are among the most powerful engines of international mobility and

immigration, both of which appear to populists to erode traditional nation- or race-based identities. The number of international students has increased exponentially. At present, the predominant flows are from the global 'south' to the global 'north'. The most popular destinations are North America and Western Europe, with the UK still in the lead, and also Australasia. In the future, more balanced flows are likely to develop between an increasingly enriching east Asia and these traditional destinations for international students. But in the eyes of populists, focused on the perceived threat to national (and generally mono-cultural) identities, that will make little difference. Multi-culturalism in whatever form is their target. For the same reason whether international students are counted in statistics on immigration, as they are in the UK, or whether they are excluded, as in Germany, is a secondary consideration.

Here there appears to be an irreconcilable clash between populism and the academy. Most advanced higher education systems, especially in North America and Western Europe, depend crucially for their scientific and scholarly productivity and excellence on the import of talent from the rest of the world—in particular doctoral students and early-career researchers but also among established scholars and scientists. The opposition of UK universities to leaving the European Union has been driven not only by the cutting of access to European research funding but also the potential loss of academic staff from the EU (Scott 2018). In practice, contemporary universities have no option but to be outer-focused, internationally minded and therefore cosmopolitan in the eyes of populist critics. This is an operational necessity but also a normative choice. Recognition and understanding of, and respect for, the 'other' is as important an element within an open intellectual tradition as recognition of the incompleteness of existing knowledge. Mutual learning from other cultures and comparative explorations are key instruments in maintaining that tradition. To reject or even reduce their cosmopolitan character, as populist urge, cannot be a serious option for the contemporary university. Even those with deep connections to their local communities act as crucial mediators, and two-way transmitters, between the global and the local.

This fundamental clash between populism and the academy can be drawn on a map. The world's 'clever cities', to adopt Richard Florida's

label, with their multicultural populations in which his 'creative class' is concentrated and where universities often act as catalysts for scientific and technological innovation, economic dynamism and social and cultural experimentation have been most resistant to the lure of populism—not only world cities like New York, London and Paris but most large conurbations (Florida 2005). In recent elections in Turkey, for example, the secular opposition retained control of Izmir and seized control of Ankara and Istanbul, that nation's three largest cities, from Recep Tayyip Erdogan's nationalist and religious governing party. In the UK's 2016 referendum on whether to remain in or leave the EU, all major cities voted to remain. The same pattern is repeated across the world. In the eyes of populists, of course, this unholy alliance of metropolitan and cosmopolitan values has intensified their mistrust of university-educated elites and experts.

The third threat posed to higher education by the rise of populism is to its institutional and organisational status. Like all large institutions, universities are distrusted by populists, believing that such organisations are inherently rigid, bureaucratic and self-serving. Their particular contempt is focussed on public institutions, provided or protected by 'government'. As neo-conservatives, many populists oppose a big state, which they associate with social welfarism in its widest sense, although confusingly they also tend to support the idea of a strong state in a more traditional and nationalist perspective. As a result, they oppose redistributive taxation, even if they personally stand to benefit. As self-imagined individualists, they instinctively distrust collective action—except in the form of their own insurgency. The fate of Obamacare in the USA is among the most compelling examples of how ideology can trump self-interest by eroding trust in 'public goods'. It is for this reason that most twenty-first-century populists are grouped on the political right, in sharp contrast to their concentration on the left in the twentieth century. As a result, an elision has taken place in the values, attitudes and policies of populists and those of anti-state and pro-market neo-liberals, despite the contradiction that neo-liberalism has been the dominant elite discourse in most countries for a generation or more.

For higher education this poses formidable challenges. The reduction of public funding for universities, combined in some countries such as

the UK with the deliberate marketisation of higher education, has placed a much higher emphasis on business enterprise at the expense of academic leadership. It has also tended to reduce the financial stability of higher education, leading to organisational turbulence, which in turn has eroded longer-term academic self-confidence and shrunk academic freedom. A much sharper focus on ‘delivery’ of corporate-like university priorities, and accountability to ‘stakeholders’, has made it more difficult to maintain the conditions for scientific and wider intellectual creativity against a background of permanently incomplete and uncertain knowledge. In many higher education systems and institutions, a substantial shift has taken place in organisational culture—away from traditional collegial forms to new patterns of management. More broadly, the idea—and ideal—of the ‘public university’ serving the public good whatever its precise funding or governance arrangements and playing a new key role with ‘civil society’ has become more difficult to sustain. Although the degree of enthusiasm with which these trends have been pursued has varied, the overall direction of travel appears to be clear. Paradoxically perhaps, the impact of populism has been to intensify this neoliberal course—directly by agreeing with large parts of the neoliberal critique of the liberal universality and indirectly by eroding the standing and the self-confidence of the academy and so its capacity to resist.

## **Fighting Back: Meeting the Challenges of Populism**

Populism’s critique of higher education is necessarily confused because populism is a diffuse movement, a collection of specific insurgencies protesting against a range of targets—the welfare state and the high tax regime it is assumed to require, globalisation and its erosion of traditional middle-class careers and working-class jobs, austerity and the reduction of core public services, immigration and multiculturalism and the threat they seem to pose to national identities, the supposed contempt of the upwardly mobile for those ‘left behind’, the arrogance of experts. The list can easily be extended. As has already been argued, populism is to a large degree a media construct, largely defined by those who feel most

threatened by its impact (or who believe they can exploit its energy for their own purposes).

The impact of populism on higher education, therefore, is inevitably variable and contingent. As has already been argued also, the relationship between populism and higher education is complex. There are some strands within mass systems of higher education that are themselves populist, in the sense that they pose a challenge to the traditional academic order even if their radicalism does not fit the current stereotype of 'populism' imposed. To the extent there is a coherent populist critique of the academy it is based both on myths—higher education's lack of patriotic commitment (when in fact universities have become key instruments for the projection of national power and prestige)—and on truths (its role in reproducing social hierarchy under the cloak of promoting social mobility, and its espousal of cosmopolitan values).

Higher education's response, therefore, must be to confront and vigorously rebut the myths and address the truths contained in populism's general critique. In the case of the myths the academy should abandon the defensiveness, even appeasement, that has characterised some of its responses to cruder forms of populism. In the case of the truths it must be more prepared to acknowledge the force of some elements in populism's critique. It should do so under three main headings—a reinforced commitment to fairer access; renewal of the curriculum (and of learning styles and teaching methods); and an opening-up of the research game to a wider group of players.

## **Fair Access**

The access gap—even gulf—between the most advantaged and least advantaged groups in terms of participation in higher education has already been discussed. Even with the necessary qualifications, also discussed earlier in this chapter, this gap has stubbornly persisted into the age of mass higher education. Indeed the access gap has greater social resonance under conditions of expanded participation than in the past when only a small percentage of the population enjoyed any form of access to higher education, certainly to university education. Not only have higher education credentials become even more crucial for securing



access to an increasing range of professional and other skilled jobs, some experience of education beyond secondary school has also become a prerequisite for full participation in an advanced democratic society. Contemporary higher education provides ever more essential human and cultural capital, which increases the disadvantage suffered by those denied access.

This gap between participation levels among the most and least advantaged social groups is rooted within the deep structures of social and economic inequality and also of continued gender, racial-ethnic and other forms of discrimination. As such it may appear to have been relatively impervious to differences in national policies. For example, within the UK the access gaps are broadly similar in England, where students are charged high tuition fees, and in Scotland, where higher education is free (for students domiciled in Scotland). But it would be misleading to jump to the conclusion that national policies have no impact. There is more general evidence of the damaging social effects of high-fee regimes. For example, the high fees international students are charged in many jurisdictions has meant that they are even more likely to be drawn from the most advantaged groups. Only the privileged can afford to be internationally mobile. It is now generally accepted that free or low-fee higher education is a necessary, although not sufficient, condition for securing fairer access.

Moreover, the impact of the deep-rooted social inequalities on differential access rates to higher education places an even greater responsibility on universities to take action. One obvious remedy to the access gap is to adopt positive discrimination policies that favour applicants from under-represented social groups. In the USA, where race has traditionally been the major determinant of unequal access, the legitimacy of affirmative action was widely accepted in the 1960s and, despite the rightward drift of American politics since, it continues to be generally accepted as a legitimate intervention to remedy past discrimination. In the rest of the world, especially when the major determinant, definitions of social class, has more often been more contested, such policies perhaps have more limited legitimacy. Although many Governments have high-level policies to address the access gap by encouraging wider participation in higher education, few have been prepared to go down the same path of robust

intervention—for example, by setting specific improvement targets. Instead universities themselves have been left to devise their own detailed policies for widening participation to realise the aspirations of Governments, often with limited financial incentives to do so. As a result, greater emphasis has often been placed on raising achievement standards in secondary schools, to expand the pool of eligible candidates for entry to higher education. Universities have often focused on assisting this process of school improvement through ‘outreach’ initiatives and developing ‘bridging’ programmes. Universities themselves have typically resisted radical changes in their own academic practices.

In the face of the populist challenge, these efforts to ‘democratise’ access to higher education may be insufficient to address the underlying concern that elite universities in particular are focused on the reproduction of elites and offer only tightly policed pathways for social mobility. Governments, therefore, may need to consider more robust intervention by setting targets for improvement, even if this compromises the autonomy of universities or generally disturbs the academic *habitus*. At the same time traditional entry standards, whether set by Governments, professions or the universities themselves, may need to be reformed. Indeed the very definition of ‘excellence’, which is not neutral but socially and culturally contingent, may need to be challenged. Greater use needs to be made of so-called ‘contextual admissions’, in effect variable entry standards that reflect the social and educational disadvantages experienced by some applicants and focus on their future potential more than their present achievements or past record (Boliver et al. 2015).

Fairer access, of course, is not enough if disadvantaged students continue to perform less well than their more privileged peers in terms of completion rates and qualification outcomes. In the UK, the performance gap between black and minority ethnic students and white students is already a matter for concern, and a number of initiatives have been taken to address this gap. More generally, greater opportunities need to be offered to part-time and adult students, and flexible study patterns developed for work-based students. In short, a step-change is needed on the part of both Governments and universities in their efforts to secure fairer access to higher education, if this populist critique is to be addressed adequately.

But the focus on individual applicants may not be enough. Low levels of participation in higher education are closely aligned with other indicators of disadvantage—for example, in health or employment. This disadvantage is often located in areas of multiple deprivation, deeply rooted in communities characterised by inter-generational inequality. Often these communities are to be found in large urban areas in which universities themselves are located. The world's 'clever cities', these beacons of innovation and enterprise, typically also contain pockets of poverty and deprivation. Many universities already recognise their obligation to reach out to and help regenerate these deprived districts, either by seeking to reactivate older 'civic university' responsibilities that have often atrophied in the hyper-competitive environment of global rivalry or by forming the nucleus of economic enterprise zones (UPP Foundation 2019; Florida 2017). Similar pockets of poverty and deprivation are also to be found in rural and remote regions within nations, although in this case Governments have themselves been active in development initiatives (which typically include opportunities for advanced education). Achieving fair access to higher education, therefore, demands community engagement as much as it does individual empowerment.

## The Curriculum, Learning and Teaching

The democratisation of higher education that is needed to counter the claims of populists also requires the reform of the curriculum and how it is delivered, of teaching methods and learning styles and, indeed, of the constitution of knowledge. This reform is well under way. New subjects have entered the curriculum. Some of these new subjects have been developed to meet the needs of new professions, both 'enterprise' professions such as business and management, marketing and accountancy and the art and design, and 'public service' professions such as teaching, social work and healthcare. Other new subjects have emerged to reflect the more diverse demographics of students—for example, gender or black studies. At the same time more traditional disciplines have been deeply influenced by new political and intellectual agendas. The advance of feminism has had a pervasive effect on many social science and humanities

disciplines, analogous to the influence of Marxism or Freudianism in earlier times. Other examples include the greater emphasis now placed on legal, ethical and environmental concerns in engineering and management courses. Alongside the more familiar changes in the 'public life' of higher education, first massification and more recently (and in some countries) marketisation, there has been an equally significant if more silent revolution in what has been labelled the 'private life' of higher education, the constitution of knowledge itself and the shifting taxonomies of academic disciplines.

Equally radical changes have not taken place in the delivery of the curriculum, teaching methods and learning styles. Beneath a turbulent surface of constant experimentation, less may have changed than these appearances of reform suggest. Universities have been reluctant to move away decisively from traditional forms of pedagogy. Large-group teaching based on formal lectures still plays a key, even dominant, role in the learning ecology of many disciplines. Small-group teaching continues to conform to the norms of Plato's Academy. Experimental work would be familiar to nineteenth- and twentieth-century scientists. The economics of mass access have tended to favour 'industrial' rather than 'artisanal' forms of teaching. New learning technologies have so far had a limited impact, complementing rather than substituting for more traditional methods. Massive Open Online Courses (MOOCs) have yet to move far from being marketing 'tasters', adjuncts to mainstream higher education (Losh 2017). Social media have often been used as sophisticated 'noticeboards' and communication tools rather than embraced as a key element within a new learning paradigm. The digitalisation of libraries has led to easier access to learning and research resources but not to radical changes in how these resources are used. The shift to problem solving in the curriculum has sometimes been restricted to the adoption of new pedagogic techniques rather than a decisive shift away from content acquisition. Instead, the renewed emphasis on skills have elided both problem solving and content acquisition.

Of course, more significant changes may be on their way. Even if learning management systems operated by universities and other online platforms developed by commercial organisations have so far led to evolutionary rather than revolutionary changes in pedagogic cultures,

increasingly there is likely to be a blurring of the lines between these ‘managed’ systems and the chaotic world of social media. The barriers to accessing knowledge and expertise have been radically lowered, which has generally been welcomed as an unambiguously positive development. But the effort required to access knowledge and (apparent) expertise has also been radically reduced. In some key respects study is no longer such a long and arduous road. Outside the academy this ‘instant’ access to knowledge, expertise and opinions, and the ability indiscriminately to spread the ‘word’ with a few clicks on a keyboard has been seen in a more negative light, as a driver of populism and source of ‘fake news’. In the longer term a similar threat may be posed to the integrity of academic knowledge.

However, the challenge will be to confront such shifts in pedagogic culture, and channel their potential in positive directions, rather than retreat behind the walls of an anachronistic ‘ivory tower’. In the twenty-first century, particularly in the light of the challenge from populism, higher education needs to go beyond being a mass system and become instead a universal system, open and relevant to the mass of the population. ‘Higher education’, centred as it still is on special-purpose institutions, universities, occupying defined spaces, both intellectual and spatial, cannot make that decisive shift alone. Older categories such as ‘adult education’ will need to move back from the margins to which they had been consigned by mass expansion in the last century and regain the mainstream. The future pattern of advanced education, whatever label is preferred, will be an archipelago of learning—different types of institution and different modes of learning. In the course of this evolution once firm categories such as ‘level’, ‘progression’, ‘assessment’, even ‘curriculum’ and ‘course’ will be problematised. It will be a destabilising experience in organisational and bureaucratic terms, but also an exhilarating one in terms of intellectual creativity and social potential.

## **New Patterns of Research**

At present, a firm distinction is drawn between ‘teaching’ and ‘research’. In administrative terms it has even been hardened in recent years, as

attempts have been made to develop a stronger 'quality culture' in the former and new assessment regimes imposed on the latter. In terms of esteem and reputation, it has become the primary metric of hierarchy, as universities are defined (or define themselves) as 'research-intensive' or research-led' to distinguish themselves from others focused predominantly on teaching. This hardening of the research-teaching divide is at odds with both new conceptualisation of how knowledge is produced and developing grassroots practices.

These conceptualisations have taken several forms. Among the most popular are the idea of the 'triple helix' of interactions between university, industry and government (now expanded to include other dimensions such as civil society), and the idea of 'Mode 2' knowledge that is socially distributed, highly reflexive, multi-actor and multi-site and able to generate its own measures of 'quality', and which has developed alongside 'Mode 1' knowledge, the more familiar pattern of discipline-bound, peer-driven, hierarchical science (Etzkowitz 2008; Gibbons et al. 1994; Nowotny, Scott et al. 2001). Both these conceptualisations of more open and fluid knowledge generation systems undermine the notion, much hated by populists, that science and scholarship are dominated by closed communities of experts who are resistant to external accountability and impervious to wider ideas of social responsibility.

The emergence of new forms of research practice are closely aligned with these new conceptualisations of knowledge generation. Action or practitioner research is already well established and it has been successful in generating new research methodologies in some fields, despite the disdain it still suffers in more traditional research assessment systems. Activist-led research has also been a powerful influence in research into some diseases such as AIDS and muscular dystrophy, providing not only crucial financial resources but also decisively determining research priorities. In some of the social sciences and also the humanities, activist communities have also helped to reshape intellectual agendas. New actors and agencies have become involved in policy-related research, alongside more conventional university researchers, who have reproduced the role played by industry-based researchers in the applied (and basic) sciences.

This ferment of new ideas of thinking about research, and knowledge more broadly, and of new research practices poses a challenge not only to traditional hierarchies of scientists and scholars but also to more recently established systems of research assessment, and institutional classification. But it is a positive challenge, with the potential to further open up contemporary higher education and research systems. It may also be an essential challenge if the potent critique of populism is to be blunted.

## Conclusion

The emergence of populism in the second decade of the twenty-first century has the potential to undermine higher education in a number of ways. The risk is that, as a producer of experts (and social and political elites), as a generator of social and economic advantage (and consequently of disadvantage), as a site of cosmopolitan rather than patriotic values, as a ‘public’ system (in ethos if not in values) at odds with anti-state individualism, as a standard bearer for universalistic modernity, the university has ended up ‘on the wrong side of history’, an awkward place for an institution used to imagine itself as at the cutting edge of progress.

This chapter has attempted to show that the risk is exaggerated—first, because populism is itself an inchoate insurgency (or insurgencies) with very limited unity of purposes which is better described as a set of attitudes rather than an organised programme and which in key respects is a construct of a critical (or conniving) media; secondly, because modern higher education systems are also highly diverse, containing both conservative instincts and elements (which appear to be justifiable targets of populist critiques) but also radical and progressive aspects that have the potential to open up the university, socially and intellectually. By emphasising these aspects—in particular, fair access, and new constructions of knowledge in terms of both education and research—the university will be able to blunt the, perhaps exaggerated, threat posed by populism.

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# 3

## Challenges for the University: Recovering Authentic Liberal Culture During Ascendant and Populist Neoliberalism

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### Introduction

In the United States, the Higher Education (HE) institutions—universities and colleges—are struggling to respond to multiple pressures. At the top of the list are economic pressures of rising costs—for the HE institutions and for students. Institutions are saddled with out-of-control cost

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structures that are exacerbated, in the case of state-supported institutions, by severe budget cuts, and—in the case of non-elite private institutions—by stagnant enrollments. There are compounding political pressures such as the attacks on intellectual autonomy from the extreme Right, and the impacts of insular-restrictive US foreign policy on incoming international students as well as on global outreach projects of universities. Techno-cultural forces add to the complexities, including the dominance of instant-response-seeking social media in all aspects of academic life, the extreme social and ethnic divisions in society and academic outcomes, student demands to decolonize the curriculum, and clamor-compulsion to provide advanced techno-cultural facilities for teaching, research, living, entertainment, and dining. All of these forces are affecting the curriculum and learning, teaching, research, outreach, and assessment methods.

The current challenges to which US HE institutions struggle to adapt may be novel—arising from social, cultural, economic, and political transformations—but the need to adapt to such changing conditions is nothing new. In fact, the concept of university predates the European enlightenment, and these institutions (as well as the governing notions of higher education) changed over time in order to remain relevant to their times. The diversity of institutions we see today in the field of higher education (which we will unpack below) in terms of institutional forms, structures, methods, and objectives is a result of over a century-long adaptation and innovation processes. For example, the division of natural and social sciences schools we have in the universities today reflects the separation of scientific disciplines starting from the seventeenth century. Engineering schools and curricula entered the universities after the industrial revolution. Marketing departments opened up in universities as a response to the rise of industrial mass production in the twentieth century.

In this chapter, we are concerned with recent transformations that aim to reformat the internal logic of HE without a direct reference to such externalities. The thrust is towards replacing the functional and intellectual diversity of the institutions with a monolithic conviction of efficiency and productivity solely indexed to contested economic objectives; and, in populist regimes, to banish or suppress the ‘officially inimical’ people and content. As we will explain, neoliberalism appears as a new,

hegemonic governmental logic since the 1980s. Works of Foucault, Harvey, Lemke, and Brown (among others) expose that, as an ideological framework, neoliberalism—rather than simply revitalizing liberalism’s social projects—attempts to overhaul the key concepts of the classical eighteenth-century liberalism and redefine the relations among these concepts. In this respect, rather than simply responding to certain technological and social developments, neoliberalism aims to transform public life and reform the public institutions as well as social subjectivities by infusing them with an ethos of competition. Universities, as the generators of public life appear to be the targets of this new governmentality for catalyzing this transformation. We aim to provide analytical as well as practical perspectives on how to comprehend, engage with, and ameliorate the difficult situation of HE in the USA.

The key idea of the ‘university’ (which is embodied in the umbrella term “higher education”, or HE, which we use today to include many different implementations of the notion) had always been to expand the limits of our knowledge. The past HE focus was not on training social subjects towards performing specific productive skills; indeed, such tasks were delegated to apprenticeships in premodern times and vocational schools during modernity. HE institutions also did not emphasize preserving and reproducing what we already know: this role was assigned to primary and secondary education, not to the ‘tertiary’ HE sector. Notwithstanding the epochal, regional, cultural, technological, and other forms of historical differences across HE institutions, the existential reason of the universities had always been producing a difference—continuous improvements, from marginal to revolutionary—in our span of knowledge. Universities raised the general intellect of consecutive generations, and this became the privileged engine of social development in modern times. Principles such as *scientific materialism*, *critical thinking*, *open scientific debate* (peer review processes), *disciplinary methodologies*, the *publicness of the knowledge produced*, and *autonomy* (self-governance and independence) aided the continuing intellectual upgradation. All of these principles are debatable terms—indeed, practices diverged considerably from ideals—as the most rudimentary familiarity with philosophy and history of sciences would remind us.

But, that is precisely what the notion of ‘university’, the form of knowledge production it represents, is about, in its ideal form. Indeed, ‘production of knowledge’ partially means a perpetual refinement of its key terms and very building blocks; ‘truth’ and ‘reality’ are not set-in-stone constructions, but concepts that endlessly demand attention. Among these principles, institutional autonomy is a particularly contentious term (see, e.g., Turcan et al. 2016). Autonomy is an ideal towards which we strive rather than a particular format. The concept and realization of autonomy are the basis for exercising the intellectual freedom which is a hallmark of a free society and which enable the University to contribute to social, political and economic development (see Vignettes 3.1 and 3.2). The autonomous status (to the degree that it could be practically exercised) granted the modern universities the space-time to produce knowledge independently from (and at times, contrary to) the political authorities and economic powers, and the chance to develop their own institutional practices. As an indirect but important consequence, such institutional autonomy also granted the universities the chance to be distinct from one another, pursue different research fields and interests, experiment with learning methodologies, and respond to multiple cultural, economic, social needs.

### **Vignette 3.1: Autonomy and Pluralism**

In Europe, the modern universities were conceived as a part of the ‘public education’ and funded by the public. Despite their theological and religious institutional roots, they had to be secular institutions, open and inclusive towards all constituents of the ‘public’ at large (there are still numerous ‘religious’ Universities, and few countries have granted effective ‘independence’—the fact that they are funded by the state means that they are subject to state control). ‘Autonomy’ appeared in this sense not only as a philosophical device that insulated ‘scientific’ inquiry from the influence of political, religious, and economic interests, but also as a governance device that provided the universities their ‘administrative independence’ from political, religious, and economic interest groups.

By contrast, the US political culture—as a republic—has been shaped by the notion of ‘pluralism’, which affirmed rather than denied plural influences (including political, religious, economic) as productive for a democratic public culture. As a result, most ‘private’ universities operate as ‘non-profit institutions’ that reflect and emphasize the values of the founding

*(continued)*

**Vignette 3.1** (continued)

parties in their institutional identities and curricula. Unless these institutions turn exclusionary and prevent other people from pursuing education (e.g., by imposing particular religious beliefs in their curriculum, as some Evangelical and other faith-based schools in the US do, see Vignette 3.2), they are taken as fulfilling the ‘public good’; and therefore enjoy the tax-exempt status of the non-profit organizations. The US universities also embrace the notion of pluralism in their governance. ‘Boards of trustees’ that are composed of the representatives of the affiliated organizations, and social elites who come mostly from the corporate world, govern both private/non-profit and public universities.

Therefore, although US universities are formally ‘independent’ institutions that govern themselves, their governing bodies organically connect them to external powers, which assert or negotiate their own interests in the decision-making processes. Ward Churchill’s ousting from office is an example of the extent of such influence; the famous Native American Studies scholar was unjustly fired (according to a subsequent lawsuit) from his tenured position at the University of Colorado in 2006 after being targeted by conservative media outlets because of his comments on the September 11 attacks (see, e.g., Bowen and Michael 2016 for further discussion on these issues).

Neoliberal interventions, by forcing the institutions to comply with presumptive ‘free market dynamics’ and by enforcing uniform structural changes that guarantee their compliance, erase the constitutive differences among the institutions. We use the qualifier ‘presumptive’ since, as Gabriel Tarde’s early criticism exposes, the economy of knowledge—which the universities produce—does not actually comply with economy of material commodities. The dynamics of these two economies are not only different but antithetical (see, e.g., Lazzarato 2004). Neoliberal pressures attempt to turn HE institutions into preparatory schools for business, and thus undo the very foundations of the modern university.

In the modern and post-medieval history of the university, we find two phases: (1) during the time of the dominance of the culture of liberalism and (2) during the ascendant culture of neoliberalism, often interlaced with rising waves of populism. This latter and current phase creates challenges for the liberal ideal of the university, particularly from the viewpoint of the ‘academy’—the faculty members who constitute the intellectual core of the

university. The chapter reflects on the intersecting perspectives of the governing boards and administrators of the university, the faculty members (the academy), the students and—increasingly—external constituencies such as business firms and nongovernment organizations (NGOs). The organization of the chapter is along these main sections:

- The emergence of the ideal of the liberal university, in Europe and North America followed by other parts of the globe; this ideal often acting as the preeminent intellectual institution of modern liberalism
- The rising challenges at a gradual pace initially, and then rapidly and insistently—from the forces of neoliberalism, often interlaced with populist trends; forces that negate and sometimes violently overturn the principles of the liberal ideal university
- The intersecting perspectives, about the transitioning nature of the university and the emergent challenges, from four groups: governors/administrators, faculty members, students, and the external constituencies such as business entities and NGOs
- Explorations of the possible directions along which universities can evolve and improve under these challenging conditions

## **Emergence of the Liberal University Ideal-Type and the Autonomous Academy**

Liberalism emerged as the central cultural ideology of modernism during a centuries-long evolutionary process from the fourteenth–sixteenth century Renaissance to the seventeenth–eighteenth century Enlightenment (see, e.g., Gould 1999; Gray 1995; Kuo 2015). While the origins were European, the Enlightenment also brought intellectual energy from North America, particularly from Benjamin Franklin, and even from distant colonies. This ideology promotes principles regarded by modern thinkers to be liberating individual human beings from all the traditional oppressive conditions that faced humanity. These are principles such as democracy, civil rights, secularism, and individual liberty, among others (John Locke). The modern thinkers believed that—together with the institutions that were to enable the exercise of these principles, such as the nation-state and public education—the institutionalization of these

principles of liberalism would be truly transformative. They would help us realize the liberation of individuals, the citizens, from all oppression, freeing them to follow their own free and independent will, to participate equally in all cultural (political, social, economic) developments and realize their full potential (Gray 1995; Susser 1995).

American universities came to epitomize the liberal culture and principles only at the leading edge, not across the board: the American HE sector is vast and diverse. In Vignette 3.2, ‘The Ideal-Type Liberal American University’, we list the range of HE institutions in the USA, identify those that approximate the ideal-type, and profile briefly two very opposite universities.

### **Vignette 3.2: The Ideal-Type Liberal American University**

With well over 5000 institutions, the HE sector in the USA is vast and diverse. At the top are elite private universities (Ivy League and similar), public research universities (often flagship, land grant schools), and elite liberal arts colleges. These (used to) approximate to the liberal ideal-type. At the other end are ultra-conservative religious universities that reject many of the liberal ideals. In between are other categories—technical colleges, community colleges, open-minded religious universities and colleges, nonelite private universities and colleges, historically black universities and colleges, for-profit universities and colleges, women’s colleges, and men’s colleges, which range across the liberalism spectrum.

Wesleyan University is an exemplar of a US institution very close to the liberal ideal-type. With 3000 students, Wesleyan is a liberal arts college with a reputation for aggressively championing diversity—of people and views. According to one college-help site: “Intellectual independence, critical thinking skills, and the ability to see the connection between distinct fields of learning are the goals of a Wesleyan education. Students are encouraged to see themselves as scholars, to participate in the exchange of ideas, and to form close working relationships with professors. Wesleyan describes its environment as academically demanding but noncompetitive...”.

By contrast, Bob Jones University, also with nearly 3000 students, is a fundamentalist Christian university.... “a biblically faithful, Christian ... university focused on educating the whole person to reflect and serve Christ”, according to the website of the town where it is located. The school has been criticized for its policies that are often racist, anti-gay, and tend to blame (rather than protect) victims of sexual abuse. The institution often exhibits a ‘family business’ character: for years, Bob Jones and three generations of his family successors led this university.



## Challenges Arising from Neoliberalism and Populism

Neoliberalism emerged from the political and policy-level ascendancy, during the Thatcher-Regan era, based on the neoconservative intellectual principles—proposed in the 1920s and 1930s—that evolved and were refined in the crucible of the Cold War after World War II ended (Harvey 2007). The intellectual ideas of neoliberalism were well honed during the series of meetings of transatlantic intellectuals of the Mont Pelerin Society, founded by Friedrich von Hayek, that met at Mont Pelerin in Italy, from 1947 onwards (Monbiot 2007). The ideological framework of neoliberalism was ready; the coming to power of Margaret Thatcher in the UK and of Ronald Reagan in the USA (see Vignette 3.3) provided the powerful political platforms to launch these ideas (Monbiot 2016).

### **Vignette 3.3: The Reagan Years: An Example of Neoliberal Intervention in the Higher Education System**

One of the first political acts of the Reagan administration [1985] was to severely reduce student loans, which had a huge impact on the accessibility and the function of higher education in the following decades. Cutting back student loans was accompanied by the persecution of students who were not able to pay back their debt. Consequently, students from low-income backgrounds started either staying away from higher education, or choosing 'vocational' education options, which guaranteed them job opportunities immediately after finishing school. This measure indirectly, yet firmly affected the public life. Fields that required longer education (such as medicine and law) and after-school exploration and experience (such as humanities and arts), fields that lead to professional qualities and positions that eventually shape public life at large, became attainable only for students from upper-middle-class economic backgrounds. In other words, the Reagan administration's intervention diminished class mobility, and at the same time, forcefully produced the trained labor force for industry.

Neoliberal policies rely solely on the workings of the 'free' market, based on its own principles, and hold that it is the competition in the market that will provide the liberty of the individual, promote

democracy, protect civil rights, and advance all other ideals of modern culture (Monbiot 2016; Steger and Roy 2010; Wilson 2018). According to neoliberal ideology, left to work according to its principles, the market will simply take care of all other modernist principles. Indeed, neoliberalism elevates and sharpens the marketization—of all aspects of life—in ways that are distinct from markets and capitalism under liberalism (see Ozgun et al. 2017). Neoliberal mutation occurs in three important ways:

- *From non-market to all-market:* Classical liberalism favored the market but left key socioeconomic fields—arts, culture, law, public administration, education—outside the ambit of the market. Perceived as vital for the public good, it was felt that these fields could not be organized to serve their vital roles efficiently and effectively when left to market dynamics. Neoliberal mutation does not perceive such socioeconomic spaces outside of the market. According to the neoliberal rationale, the main function of the state/public authority is to spawn markets—actively—even in the public realm.
- *From exchange to competition:* Classical liberalism conceptually organized the market as a model around the notion of ‘exchange’. In a thriving ‘exchange environment’, goods and services materialized, and the demand/supply mechanics played their roles. ‘Competition’, a side force, facilitated, regulated, and guaranteed the efficiency of ‘exchange’. Neoliberalism conceptualizes market around (or even, ‘under’) the notion of ‘competition’. Above all, competition emerges as the servomotor not only of markets, but of all socioeconomic development.
- *From natural to ideal form:* Classical liberalism perceived market as a natural form, an exchange environment that is a natural extension of social exchange in general; if people were left alone, they would develop market relations among themselves. Neoliberalism perceives market as an ‘ideal form’ that can only be approximated in practice—and requires active policy impetus. Market does not happen naturally, because the social relations are not inherently competitive but ‘collaborative’; thus, competition and marketization have to be cultivated and pursued actively against the natural inertia of society.

According to critics, neoliberalism is not a working proposition for efficient, equitable, and harmonious societies. Instead of all the idealistic promises, neoliberalism results in creating a supremacy of economic interests over human interests, of ‘profit over people’ (Chomsky 1999). Yet, as Foucault, Lemke, and Brown point out, neoliberalism is not an amalgamation of ruthless neoclassical economic policies put into action regardless of their consequences for common people, but a pervasive (and seemingly ‘revolutionary’) ideological framework that aims to reshape the social subjects, social relations, and social institutions according to the ideals of an imaginary ‘free market’ narrative. Therefore, reconfiguration of public institutions and the cultural sphere (where the social subjectivities and social relations are reproduced) has not been a secondary issue for the neoliberal politics but a priority for undoing liberal society (see Vignette 3.3). This includes the universities, which represent the epitomes of liberal public life formed around its core social values and resistant to such ideological and political interventions because of their natural dynamics, scientific traditions, and institutional autonomy.

Analyzing the changes in higher education over the past decades, we observe three types of effects resulting from such interventions: Structural effects transform institutions at a structural level, ideological effects transform the nature of knowledge produced at the universities as well as their cultural life as a social space, and, finally, there are effects on labor processes and work conditions in the universities. The recent variant—neoliberal populism (predicated on crafting, blaming, and attacking a villainous ‘Other’, see Gökmen 2017)—further reshapes everything, including HE institutions.

## Structural Effects

Neoliberal policies change universities at the structural level through intervention mechanisms. Major structural changes include (but are not limited to) the following:

- Restructuring of administrative bodies, toward managerialism often favored over academic leadership

- Intensification of accreditation and assessment policies and practices, resulting in the metricization of everything (to the detriment of open-ended mind-expanding discourses and discussions; see Vignette 3.2)
- Pressures to create industry-university partnerships, typically with the industry partner in the driver's seat (see Miller 2009)
- Concentration of public grants and resources to favor big universities (that are more accommodative of neoliberal priorities), and disadvantaging small liberal arts colleges (that often cling to the liberal ideal-type)
- Prioritization of applied sciences and disciplines over other departments and areas of the university, including differential financial rewarding of the applied sciences professors
- Close linking of universities with financial capital ('Wall Street') through endowments, student loans, and privatization of pension systems

One overall effect on universities and student-families is the increasing social class discrimination in student admissions, with admission strategies that could become intense, and sometimes illegal (see Vignette 3.4).

#### **Vignette 3.4: Admission Schemes and Scams**

While most of the 5000 HE institutions in the USA clamor for applicants, the top schools have the opposite problem. Students desire them so intensely, and their parents even more so, that often a variety of strategies are employed to boost chances of admission to the top institutions. One admissions consultant boasted that his "top-of-the-line" admissions-help package would cost the parents \$250,000. Sometimes these strategies cross the line and become illegal. In 2018–2019, a number of illegal college-admission schemes surfaced, including the following (resulting in some prosecutions and jail sentences):

- Falsely certifying that a girl is an athlete, and getting the athletic department of the target school to recruit the girl as a student—in exchange for a hefty bribe
- Deliberately hacking into and falsifying the scores on college achievement tests, which play a significant role in the admissions decision

These phenomena are going global. We know of one parent in China who asked her Chinese-American friend a question like this: "I can easily donate a million dollars. Will that help get my son into Harvard?" The answer, of course, was no... but, the answer could be different if donations of \$50 million to \$100 million were being mulled.

## Ideological Effects

Neoliberal ideological disposition reshapes the curriculum, educational content, and the social/cultural life in the universities. In the USA, the ideological effects include these (and of course more):

- A ‘managerial’ turn in university administrations
- Prioritization vocational skills in designing curricula
- Public recreational spaces of universities opening up to commercial activities (such as expositions, commercial concerts)
- Universities selling services to students and faculty that are only indirectly related to education: dormitory rooms/apartments, parking spaces, meal plans, gym memberships
- Incorporation of business skills and neoliberal values (competition, self-promotion) into educational content and activities

The overall result is an ongoing effort to cultivate neoliberal subjectivity leading to the changing perception of the university in the eyes of students and faculty as a space of contestation rather than experimentation, learning, and intellectual/creative development.

## Effects on Work Processes and Conditions

Neoliberal pressures alter the work processes and work conditions at universities. In the USA and, by demonstration and exemplification, globally, the following are observable on higher education campuses:

- Prioritization of the faculty and students through measures such as the adoption of purely quantitative criteria for tenure and performance evaluations
- Prioritization of ‘research activity’ in quantitative performance evaluations (n-number of publications in x-category outlets, grant dollars generated)
- Creating a sterile competition that is antithetical to intellectual productivity and social responsibility

- Increasing reliance on part-time faculty (which is precarious labor par excellence; see the work on the ‘precariat’ by Standing 2016)
- Internship requirements imposed on students (provision of unpaid labor for the industry)
- Outsourcing of operational services (generating and taking advantage of precarious labor in noneducational contexts)
- Adoption of anti-union policies and regulations for faculty and staff
- At the big universities, deployment of exploitative collective bargaining strategies that are only feasible for large-scale regional employers
- Not by explicit policy, but indirectly, intensification of age, gender, and social class discrimination among faculty, students, and administrative staff
- Increasing salary gaps among administrative hierarchy and faculty members, with the top levels (for the very few) outstripping the bottom rungs often by multiples of 20 or more

Neoliberal transformation of universities and higher education system mirrors the three transformational forms and their effects that we discussed. On the base layer, education is perceived as a ‘market’ rather than a public good/service, and regulatory institutions and agencies involved in education are perceived as the market components. The new jargon of educational affairs reflects this transformation openly. Even public universities in their mission statements consider themselves as a ‘player’ in regional/national ‘education markets’. The result is that public educational initiatives are discouraged and private initiatives are encouraged.

Educational institutions (whether non-profit or public) are perceived as any other corporate business environment. University administrators are selected from the corporate world rather than from among academics. The structures of the administrative bodies are modeled after profit-oriented businesses. Most importantly, the organizational efficiency and effectiveness criteria of educational institutions emulate the success measures of business enterprises. The legal frameworks of non-profit organizations prepare the ground for such criteria by classifying these institutions as an economic agency permitted to generate economic surplus in a similar way to profit-oriented corporations (see Vignette 3.5).

### **Vignette 3.5: Non-Profit Organization: The Economic Form of Private Universities in the USA**

According to the liberal idea of freedom, the 'public' was seen as the sum of private interests. Self-regulating market mechanisms would provide these private interests a space of negotiation, and 'public good' would realize itself through such negotiation.

Yet certain social activities which served as a benefit to society at large could not be left to the invisible hands of the market. Government functions and administrative services, as well as religious and social support functions (such as charities), are these kinds of activities. A specific term and legal identity original to US political culture, 'non-profit', covers such activities and defines the organizations dealing with these activities. Since the activities are conceived as fulfilling the 'public good', US law provides these organizations with exemption from certain federal income taxes. The legal status of these organizations is defined by article 501 of the Internal Revenue Service code, which defines the fields of activities which are allowed federal tax exemption in its provision 'c'. According to this provision, religious and educational institutions (among other institutions) are considered charitable institutions. This means that they are exempt from certain federal income taxes, and can receive donations that provide income tax relief to the donors.

The definition of 'non-profit', and the related concept of 'endowment' is the key to understanding the underlying economy of the 'non-profit sector' within which the US universities operate. Non-profit organizations are able to get involved in commercial activities in their field just like any other corporation. In this sense, there is no difference between 'non-profit' organizations and profit-oriented corporations in generating 'surplus value' out of their commercial activities. The difference between 'non-profit' and 'profit-oriented' organizations lies in the distribution of 'surplus value' rather than in their intentions in profit making. 'Profit-oriented' organizations can transfer their 'profit' to the owners of companies or distribute it among shareholders. 'Non-profit' organizations cannot do the same, and can only use their income to invest in the activities to which the organization has committed itself.

Here the law makes a distinction on the basis of intention, with the assumption that the main goal of profit-oriented organizations (corporations) is to make their owners and shareholders wealthier, whereas the goal of non-profit organizations is to create the economic resources necessary for sustaining their activities in their field(s). Non-profit organizations can indeed make profit and sustain capital accumulation perfectly well, but their profit is not appropriated by private individuals and the capital accumulation cannot be transferred to their shareholders as personal wealth. However, generation of profit may be a performance indicator for salary enhancement.

The growing endowments (see Vignette 3.6) economically tie the universities to finance capital. There are many indicators of the transformation at this layer; such as the professional administrators salaries (which are on par with corporate CEO salaries), the pressure on the institutions to grow and become more ‘competitive’ (defined by quantitative measures) within the ‘markets’ they serve.

### **Vignette 3.6: Endowments: The Link Between Private Universities and Finance Capital**

Today, the endowments (financial assets) of the oldest non-profit organizations operating in the US cultural landscape exceed the national economies of dozens of small nation-states. In January 2008, 76 colleges in the USA had endowments exceeding \$1 billion, led by Harvard University’s staggering \$34 billion endowment, which saw a nearly 20% increase, bringing in \$6 billion over the course of the year. As of June 30, 2008, Harvard Management Corporation, the university’s investment company, managed more than \$45 billion. The second largest endowment was held by Yale University, which rose to \$22.5 billion, seeing a 25% increase over 2007. The median one-year return on endowments was 21% among colleges with endowments greater than \$1 billion in 2007, and nationally the median return was 17.2%—the highest it had been since 1998. Meanwhile, while the endowments of the colleges grew exponentially during 2004–2008, they spent proportionately less of their endowments each year, spending only 4.6% on average in 2008. As a response to growing public concerns over the growth rate of their endowments, only a few universities announced an increase in their financial aid programs and diverted more funds to their day-to-day operations. In the case of Harvard University, 35% of the institution’s yearly expenditure was covered by funds from the return on their endowments in 2008, after a 40% increase as a response to the criticisms (Schworm 2008). The unsatisfied critics claimed colleges should spend far more of their fortunes on public education in order to justify their tax-exempt status. Lynne Munson, from the Center for College Affordability and Productivity, who testified before Congress on the issue in fall 2007, claimed Harvard could allow its students to attend the university for free, for just \$300 million, a fraction of the endowment’s annual return.

‘Endowments’—being massive investment pools—link universities tightly to finance capital. The growth rates of the endowments themselves demonstrate this link clearly. After the deregulation of the finance market, the endowment of Harvard University grew exponentially during 2004–2008 with a nearly 20% investment return rate, reaching \$36.9 billion by June 2008 at the peak of the finance market bubble. After the finance market

*(continued)*



**Vignette 3.6** (continued)

crash, in the following 4 months, the endowment lost 22% of its investment value (Gross 2008). Facing similar losses due to the downturn in the financial market, most major universities announced significant cuts to their budgets by the end of 2008. In financial boom times, HE institutions are not eager to employ their increasing endowment gains to increase their services or to help students, staff, or faculty. On the other hand, in financial downtimes, universities are eager to cut their budgets and services. By 2018, endowments had recovered and were more opulent—over 30 universities had endowments over \$3 billion. In billions of dollars, the top 4 were Harvard at \$38.3, Texas at 30.9, Yale at 29.4, and Stanford at 26.5. Of course, fees still keep rising—and austerity measures continue.

Such a direct relation with finance capital makes the universities' claim of 'autonomy' highly doubtful. Moreover, such ties with finance markets also indirectly relate the university to the politics associated with these economic structures. In 1996, Yale University, the fourth richest university in the USA, sought to get rid of its unionized workers via outsourcing, and provoked a strike. This was not only to exploit the post-industrial economic crisis in its home city of New Haven (the fourth poorest large city in the USA) but also to lower pay standards in the region, for the benefit of other corporations operating in the area, by using its economic power as the largest employer (Wolff 1997).

Beyond these administrative and procedural transformations, we find the restructuring of the regulatory agencies involved in the educational processes and the content of education itself. "Entrepreneurial skills" have become a necessary skillset to be taught in every field—which only makes sense if one accepts that 'market', left to its own devices, is not capable of evaluating and appreciating professional and intellectual skills, so that the students have to be taught 'how to do business' besides 'how to do their job'.

'Competition' is a pivotal term in this restructuring of regulatory agencies. It is also the conceptual pitfall of neoliberalism in its attempt to remake the cultural and educational spheres. Intellectual, creative, and artistic fields; labor processes; works; and products are founded on and constituted by the notion of "difference"—a 'creative work', in its essence, is a work that is different from previous works, otherwise it is not

‘creative’. ‘Information’ itself, in Bateson’s famous theoretical demarcation, “is a difference that makes a difference”. Whereas ‘competition’ can only be established among things that share essential functional similarities. The first thing that the neoliberal rationale brings in its attempt to remake the cultural field according to the law of competition is to install quantitative measures that facilitate competition at the practical level, and disregard all the constitutive qualitative differences between institutions, regulatory agencies, labor processes, and cognitive, intellectual, creative production methods and productions. Particularly in social sciences and humanities, the notion of ‘research’ has been emptied of its creative essence through the emphasis on quantity.

The top-down and forceful imposition of quantitative criteria for measuring “effectiveness” and “efficiency” of academic institutions results in regulatory institutions and agencies embracing values that depreciate their work. Quantitative criteria fail to evaluate qualitative results, and metricized processes cannot self-correct their operational logic. The closure of the Centre for Contemporary Cultural Studies (CCCS) at the University of Birmingham, in UK, in 2002 is a case in point. One of the most productive and influential units in social sciences was shut down and “restructured”. The pretext was the low score CCCS received in UK’s Research Assessment Exercise of 2001—a government-sponsored survey that distributed public funding on the basis of the quantitative assessment of the universities research activities, a perfect neoliberal intervention that led to a structural change that was a big loss to social sciences. The Research Assessment Exercise score was the ‘pretext’; CCCS was closed precisely because it challenged the ‘neo-liberal’ policies and was a powerful voice of dissent within the University.

The organization of the HE institutions, thus, has a different nature and takes distinctly different forms under liberalism and neoliberalism. The university’s and the academy’s ideal liberal institutional forms and principles (see the Wesleyan example, Vignette 3.2)—come under intense pressure, especially under neoliberal populism. To understand these tugs and tussles, we turn to four perspectival positions that are shaping the HE institutions of America.

## Four Perspectival Positions: Intersecting, Overlapping, Conflicting

With the advent of neoliberalism, the organization of the academy has been going through radical transformations. The institutional forms, the core organizing principle, and the type of human subjectivity that identified the university—and especially its core, the academy—under liberalism have all been displaced in favor of new (and evolving) forms. Under neoliberalism, a corporatist business logic is reorienting the core organizing principle, the centuries-long institutional forms, and the innate human subjectivity that constitute the university and the academy. Of course, the liberal forms were already gutted in many HE institutions in the USA (see Bob Jones University example, Vignette 3.2); now, the effects are spreading at the exemplar institutions—elite Ivy-type universities, major state universities, and elite liberal arts colleges—that were attempting to sustain the liberal ideal. To understand these transformations, it is helpful to focus on four perspectival positions—of the governing bodies/actors, of the faculty or academy, of students, and of entities external to the university.

### Boards and Administrators

In the universities in the USA all aspects of neoliberalism are gaining ground—move from non-markets to all-markets, transition from exchange to competition, and marketization seen as an ideal and not something that may happen naturally, or not at all. Universities in Europe and elsewhere are behind but trying hard to follow the American trends. In such times, it is to be expected that the administrative-managerial functions in the universities would expand. On the governing side—the overseeing boards and the expanding administrative ranks—these are necessary changes, essential for survival and even more important for growth. Universities slip into the neoliberal fold almost unconsciously. A study by the consulting firm Deloitte found that, in the USA, intellectual/academic leadership ranked last among the six skills sought when

hiring presidents. Being a strategist, communicator, fundraiser, and financial wiz are more important than being an intellectual/academic leader (Selingo et al. 2017). Musselin (2018, pp. 677–678) sums up the changing roles, expectations, and emerging conflicts in some hard-hitting words: “Competition has dramatically increased ... as national governments have developed competitive schemes and private actors have developed bibliometrics ... to quantify ... academic work... Competition has both increased and changed as research universities have become competitors, competitive schemes have become more formalized and the results of competition have become more quantified, visible and easy to compare... [Administrators have] to behave more strategically and to replace collegial relationships with hierarchical ones... This impacts relationships within research universities as some of the faculty are empowered by competition (the winners and those participating in the definition of the competitive game in funding agencies) and others endure competition.”

## The Faculty: The Academy

To have academic freedom, in the era of liberalism, the academy needed to have autonomy from political, social, and economic pursuits. It had to have the autonomy to set the criteria for the veracity and validity of knowledge claims (Fuller 2009). Autonomy of academic institutions, including universities (Metzger 1955), was institutionalized—at least, at the leading-elite edge of HE institutions in the USA—during the reign of the ideology of liberalism. So were other principles institutionalized, such as academics electing their administrative leaders—deans, chancellors, rectors—from among their own ranks, usually for a given term, after which these returned to their academic practices. As we saw in the previous section, these principles of electing leaders are being replaced rapidly by systems of hiring the strategist-fundraiser as the leader. In the ongoing melee of neoliberal changes, the academy is being marginalized the most; and these effects are multi-generational, since it takes over a decade of college work to prepare the consummate scholar-teacher.

## Students

In the liberal university, the student was in a liminal stage between childhood and adulthood, where the ‘life of the mind’ developed along with the maturation of the biological body. In the ashrams of ancient India, the university equivalents of the era, the person (the boy) went in a child, spent years learning all manners of skills and orientations from the guru, and emerged (graduated) as an adult scholar-warrior. In the contemporary neoliberal settings, Read (2009) finds severe stresses, of many types, on the liminal role of the student. Based on the ideas of Read (2009) and our observations, students face many conflict-laden situations:

- The tension between learning and earning, especially in state universities facing severe budget cuts
- Exhortations to be competitively demanding ‘consumers’ (“I pay tuition, give me what I want”; rejecting the liberal wisdom of gradual cultivation of the thinking person) in settings where the true goal should be learning and development of the mind
- Assessing everything on campus in instrumental ways: “How will this help me get a job?”

Read (2009, p. 152) draws the conclusion that “the liminal moment of the university, that made the subject position of the college student anomalous, neither child nor adult, is being eradicated. College life is caught between the double pinchers of childhood and adulthood. The gap between these spaces is closed; one now answers to parents and to future employers at the same time. What we see in the university is a neoliberal production of subjectivity...” Indeed, under neoliberalism, the university is no longer seen as producing thoughtful, reflective citizens. It is required to produce trained, skilled, competitive-yet-collaborative, hierarchy-respecting-yet-innovative workplace employees.

## External Entities

External entities, especially deep-pocketed business people and powerful political/ideological persons, are finding multiple ways to exert influence in the HE institutions in the USA. They are being inducted in governing and advisory boards, at the top and at subunit levels. Public-private (i.e., university-external entity) projects, partnerships, exchanges, sabbaticals, and visiting lecturer roles are proliferating on campuses. With budget cuts, even state-supported schools are forced to launch massive fundraising campaigns often with billions-of-dollars target goals, for big state universities, so that they can sustain and expand their programs and offerings. This gives the big donors substantial sway in the priorities of the institutions, despite efforts to keep donor influence away from autonomous academic practices. Yale University rejected a \$20 million gift from Oil Baron alumnus Lee M. Bass, whose condition for gifting was to expand the western civilization courses—and, presumably, stanch the spread of multicultural-postcolonial courses. Such instances are, of course, rare exceptions—universities, even rich and well-endowed ones—typically accommodate donor priorities, which usually have neoliberal flavors.

## Recovering and Restoring the Autonomy of the Academy: Ameliorative Pathways

What can be done at this point to save the higher education system from the crisis it has been dragged into by neoliberal interventions? First, we need to evaluate indicators in their social contexts, and recognize the failures and crises—all the effects we discussed above are indicators of universities departing from their privileged role of contributing to public life. The increasing income gap in university admissions and access to higher education indicates that universities are failing to facilitate social mobility, but are reinforcing and deepening the existing economic class structures (see, e.g., Miller 2018). If the production of knowledge is still possible under these circumstances or even increasing the corpus of

knowledge, according to those who believe ‘knowledge’ can be quantifiably measured by a number of indexed journal articles, the fruits of the knowledge produced are not shared by society at large, but cornered by already privileged sections of the society.

At the ideological level, there seem to be lessons to learn. Although neoliberalism appears as an ideological mutation that recomposes the key concepts of classical liberalism, this mutation took place within the cultural and economic conditions of late capitalist societies governed by liberal political principles. Therefore, retreating to the political reason of liberalism, and embracing its fault-lines and inherent contradictions as a ‘lesser evil’, is naive wishful conservative thinking. The failure of neoliberal policies embodied in the transformation of universities, however, actually gives a chance to reconsider political alternatives to the liberal social order. Not surprisingly, socialist politicians and political programs are reemerging in the US political landscape and gaining legitimacy, after decades of demonization following McCarthyism.

The structural effects discussed above are results of administrative policies, which can be reversed or replaced to achieve opposite effects. Policies and legal frameworks have to be adopted to regulate the economy of non-profit organizations in the US context—which proved fertile grounds for neoliberal influences and exploitative labor practices. Simple regulatory measures, such as limiting the endowments of non-profit organizations proportionally to their sizes, can have immense positive effects in reducing these organizations’ ties to finance capital and force them to invest their economic resources into public education. Facilitating and imposing unionized labor practices in private universities, reducing the salary gaps between the lower and upper administrative staff, and among the academic cadres of different disciplines through regulations, can be at least partially effective in the amelioration of labor conditions at the universities. The shift towards managerialism in university administration can be reversed if we can reverse the criteria of success in university administration from quantitatively measured ‘research and grant activity’ and ‘fundraising capacity’ back to innovative learning and contribution to public culture.

In short, as we maintained in the beginning, all the symptoms discussed are political dispositions issued by a new and transformed governmental logic—rather than stemming from the transformation of technological, social, and economic conditions surrounding the university. Therefore, it would not be difficult to replace them, if there is a will to dispose of this new governmental logic. Of course, such changes require the democratic processes to work in ways that will elect public officials not beholden to rich lobbyists and donors.

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# 4

## The Origins of the Current 'Crisis' Facing British Universities: Ideology or Incrementalism

John Baldock

### Introduction

At the start of the 2020s, before the onset of the Covid 19 pandemic and its severe impacts on recruitment and finances, indicators measuring the quality and performance of the UK higher education system suggested it was doing well. Amongst the positive measures were record student numbers and resources per student, improving recruitment from disadvantaged backgrounds, high retention rates, growing proportions of students going on to highly-paid employment and rising scores for student satisfaction. All of these were at, or close to, historic highs. However, at the same time, much discussion about universities in the popular media, and to a lesser extent in political debate, portrays a sector in crisis, failing to perform and facing significant uncertainty. Amongst the signs of this 'crisis', it was suggested that higher education was not providing value for money, failed to give students the skills they

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will need to succeed in a changing economy, excludes too many poorer and minority students from the elite institutions, and so is wasting talent and resources. At the time of writing, most universities are reporting deficits in their budgets and are reducing staff numbers, using both voluntary and sometimes compulsory redundancies. Less definite are the rumours surfacing wherever university managers meet: that one or another institution may be about to go bankrupt and then the question arises as to whether government will or will not step in to save it.

Some commentators have explained the current challenges to higher education within a context of the increasing influence of right- and left-wing populist ideas and the attractiveness to populist leaders of instrumentalist arguments about the right role of universities within nations and their economies. There is a literature explaining the evolution of higher education policy in the UK in terms of a neo-liberal project to turn universities into uncritical and accommodating servants of national and international capitalism (Thompson 1970; Collini 2012; Brown and Carosso 2013). Current problems can indeed be explained within such frameworks: the increasing burden of student debt; the growing 'precariat' of university teachers and researchers permanently on short-term contracts; the encouragement of lower cost and potentially lower quality 'alternative providers'; the new-managerial executives of universities that take little account of academic bodies such as senates; management by crude metrics rather than qualitative educational and research outcomes; pressure to design curricula that focus on 'employability' and technical skills rather than broader critical capacities; a preference for the sciences at the expense of the humanities. A recent report from the House of Commons Education Committee, following its inquiry into 'Value for Money in Higher Education', recommended that 'alongside a drive to improve social justice, higher education must play a more significant role in meeting this country's skills needs and preparing students for the Fourth Industrial Revolution' (HC343 2018). Others point to 'a model making universities compete following the logic of market economics, [which] has created winners and losers' (Jones 2020). They suggest recent changes to the funding and regulation of higher education in the UK constitute growing threats to the character of universities and even to core academic freedoms. The writings, mainly about British higher

education, of Stefan Collini, emeritus professor of English literature at Cambridge University, have received considerable attention within academe. He argues that increasing managerialism, together with growing emphasis on metrics and measurement, marketization and financial performance, is altering the very language with which universities are spoken of and understood, and consequently are undermining their traditional roles as the creators and transmitters of knowledge (Collini 2012, 2017).

This chapter questions whether the challenges that UK higher education is now facing are particularly unusual, or even essentially political and ideological. Rather it is suggested that the fundamental problem is the nature and scale of public funding. Ever since the end of the First World War, when government funding and public policy became the main drivers of change in higher education, British universities have experienced regular cycles of growth followed by retrenchment. The fundamental difficulty university managers have faced has always been uncertainty about the volume and reliability of income from the state and taxpayers. At the time of writing, this has once again become an acute problem. Universities have since 2012 benefitted from a period of exceptional growth in resourcing following the introduction of a new system for paying for undergraduate education based almost entirely on student loans and an annual tuition fee, set at a maximum of £9250 a year. Before the impact of the pandemic universities awaited a government response to the report in May 2019 of an official committee of inquiry, 'The Augar Review' into the funding and priorities of higher education (CP 117 2019). The review panel made over 70 recommendations including: that the average per-student resource should remain frozen for six years from 2017 to 2023; the maximum fee chargeable to students should be reduced from £9250 to £7500 per year; and that government should replace in full the lost fee income by increasing the direct teaching grant to universities, but leaving the average unit of funding unchanged at sector level in cash terms (*ibid.*: p. 206). It is the material consequences of the frozen fee, and uncertainty about its future, rather than any attempts to interfere with the academic priorities of universities (though these do exist) that explained almost all the elements of a financial 'crisis' in UK higher education which was then exacerbated by the pandemic.

## New Realities

The new government elected in December 2019 and headed by Prime Minister Boris Johnson has been notably silent about when it will respond to the Augar Committee's report and what its views are on the future funding of higher education. Some have suggested that UK universities are at risk of the new wave of populist politics sweeping across industrial nations. However, the political interference faced by higher education in the United Kingdom remains a long way from, for example, the legal restrictions recently placed on Hungarian universities by Viktor Orbán's government. Those have included the banning of gender studies and expelling the CEU (the Central European University) which was funded by George Soros and led by Michael Ignatieff. Public research funding in Hungary is no longer determined by an independent body of academics, but by loyalist government officials. In 2019 a pro-government website asked students to submit the names of professors who espoused 'unmasked-for left-wing political opinions' (Foer 2019).

Populism has no precise definition. Amongst the more commonly perceived elements of populist values are resentment of elites, including supposed intellectual elites, suspicion of academic expertise, and expectations that universities should primarily serve national political and economic interests. However, these are all values that can be shown to have been widely held across all classes and all political parties in Britain for at least a century or more. They have deep roots in a British, largely English, culture of anti-intellectualism that values common sense, practical experience and business acumen above learning and theoretical complexity. These features of Anglo-Saxon and, to a lesser extent, American culture, have been traced by scholars to Britain's early industrialization, imperialism and the hegemony of middle-class, bourgeois, elites in economic and political life (Anderson 1992; Johnson 2009; Sowell 2009; Hofstadter 1966). It is sometimes noted that, while the continental Europeans respect and admire their intellectuals or alternatively regard them as dangerous, the English tend either to ignore them, or to allow their views only limited influence. A crucial consequence is no British political party, and particularly neither the Labour nor the Conservative parties, is likely

to champion the interests of higher education. That academics and universities might be reliable arbiters of their own functions and funding has never been a natural assumption on the part of British politicians and governments of any hue. Ever since the 1920s, when British universities became largely dependent on public funding, the success of their leaders, the vice-chancellors and their governing bodies has depended largely on their reactive skills; discerning and adjusting to sometimes quite abrupt shifts in the preferences of whoever is the current government minister responsible for the sector.

In the December 2019 general election that returned the Conservative government of Boris Johnson, none of the manifestos published by political parties proposed policies that would have directly benefited universities, but what little was proposed was entirely to do with funding. The Labour Party made the abolition of student tuition fees a key policy promise, at an estimated cost of over £7 billion; expenditure that would inevitably have limited and very likely severely reduced funding available to higher education. The winning Conservative Party manifesto was notably silent on plans for universities other than to 'look at' lower interest rates on student fee and loan debts, a change that could disproportionately benefit high earners, and again which would be likely to constrain actual funding for higher education. None of the parties proposed to spend more on universities themselves despite the declining real value of the fixed student fee and the fact that the population of 19 to 24-year-olds is set to increase by over 600,000 over the next 10 years (Andrews et al. 2019).

The election manifestos confirmed a long-standing truth about the politics of higher education in the UK: policymaking and spending decisions affecting universities have always had very low political salience. Maintaining funding for universities is not an election winner. Indeed, since 1945 few of the landmark decisions affecting higher education have reached cabinet level but were determined by ministerial decision informed by assertive civil servants. An extended discussion about higher education has been very rare in the House of Commons. Detailed examination, when it does occur, takes place largely in parliamentary committees or occasionally in the House of Lords (Shattock 2012). However, historically, and somewhat fortunately for British universities, the

politicians and civil servants who do determine their futures have focussed almost entirely on the cost of higher education and to a much lesser extent on its content, such as the curriculum and teaching methods.

## University Autonomy and Accountability

For much of the twentieth century, until the 1970s, British universities, although largely and increasingly publicly funded institutions, were relatively insulated from wider economic pressures and from political or governmental interference. This was achieved through two ‘institutions’ both attributed to Lord Richard Haldane a former Lord Chancellor and Liberal and Labour Politician. The more significant of these was the creation in 1919 of the University Grants Committee (the UGC) which from 1919 to 1989 advised the Treasury and later the Department of Education on the allocation of funds to universities. In retrospect, it can be seen that UGC operated as an effective ‘buffer’ to political interference for the seventy years of its existence. The second protective institution was the ‘Haldane Principle’, an informal rule widely accepted by civil servants and academics as requiring that all decisions about the actual allocation of public money to academic research are made not by politicians but by committees of expert academics themselves (Owen 2006; Edgerton 2009).

By the 1970s the UGC looked like an increasingly unaccountable and elitist arrangement. It was essentially part of the Whitehall establishment with close informal links to the top civil servants in the Treasury and an arrangement that protected higher education from political and electoral attention and ensured steady growth in resources, benefitting particularly, until the 1980s, the less than ten percent of 18-year-olds able to obtain entry to universities. Much of the rest of higher education was funded by local government in the form of technical colleges and polytechnics. In 1989 Mrs. Thatcher’s conservative government, recognizing the unsustainability of a relatively small and highly selective university system, granted all the polytechnics university status and the University Grants Committee was replaced by the Higher Education Funding Councils for each of England, Scotland, Wales and Northern Ireland.



These were momentous decisions, but, as was usual for higher education policy, took place largely without parliamentary scrutiny. A much-enlarged university system lost its protection within government and became much more vulnerable to political decisions, particularly in terms of funding. Higher education was subject to increasing ministerial direction in the form of annual letters to the funding councils from the relevant minister setting out the government's priorities.

Michael Shattock, in his history of policy-making in UK higher education from 1945 to 2011 argues convincingly that almost all significant shifts in policy have been essentially finance driven; the product of governments' need to find ways to limit public expenditure in a context where the growing pressure of student numbers has always outstripped the more modest expansion of the national economy (Shattock 2012). The core policy-making context was always the availability of resources to finance the system. All other decisions derived from that fundamental imperative. Shattock traces the history of policy development through changes of government, and even more frequent changes in the responsible ministers. He concludes that policy has been essentially path dependent: government departments stumbled towards successive solutions in a series of often faltering steps, each step focussed on containing public expenditure and each leading to the increased marketization of a university education.

## Towards a Fee-Driven System

In retrospect the first step in the journey towards an entirely fee-driven system was the removal in 1979 of the subsidy for overseas students. Until 1967 overseas students had paid the same nominal fee that local authorities paid for home students. Between 1967 and 1979 the overseas fee was higher but still substantially subsidized by direct grants from the UGC; but then with the removal of the subsidy, overseas fees became a key additional cash source entirely within universities' discretion and so introduced them to the now essential activities of competitive market research, advertising, USP management and league tables. The overseas fee was the first example of government solving the public expenditure

problem by lighting directly on the remedy of asking the student to pay. It became a solution that would be extended incrementally over the next 40 years until the point was reached in 2019 when 96% of the costs of undergraduate provision in England, Wales and Northern Ireland were funded directly by the student fee supported by the student loan. This is the fundamental policy change of the last half century. Except in Scotland (where the Scottish parliament has not adopted the system of student fees supported by student loans but continues to fund universities directly) the funding of higher education has moved step by step from up-front grants from central government to institutions to up-front loans to students who then pay the fee to universities. This is the fundamental change affecting British universities today: not the ideological preferences of governments or their ministers, but the overwhelming dependency on loan-based student fees. All the challenges and uncertainties faced by universities flow from this fundamental shift in the funding mechanisms, which has crept up on the sector incrementally over many years.

This journey from direct grants to student fees has not been an even one for university managers. There is a long history of bumps in the road as income per student has risen and fallen many times. In an analysis of the real value of the unit of student resource over the 30 years from 1990 to 2019, the economists of the IFS point out there was a steady decline until 1998, when the home student fee was first introduced, followed by subsequent fee increases in 2006, 2012 and 2017 which produced intermittent 'boosts to university income, followed by subsequent flat lining or declines in funding. This has resulted in extremely high variation in funding per student over the past 30 years, which is unlikely to be optimal' (Belfield et al. 2017). In fact, as Michael Shattock's account shows, the pattern of substantial variation in the resource per student has an even longer history. After 1945, funding allocated by the UGC grew steadily in real terms, particularly during the 1960s, dipped sharply in the four years following the oil price crisis of 1973–4, declined again for some five years after the Conservative government spending cuts of 1981, and again as the UK faced the sterling crises of the early 1990s (Shattock 2012). Since being set at a peak of £9000 a year in 2012, the real value of the fee fell each year until 2017 when it was raised to £9250, in order to adjust to inflation, but has fallen significantly in real terms since. The

successful vice-chancellors and management teams have been those that timed their expansion and consolidation plans to fit this somewhat unpredictable cycle. The less successful were caught out and either failed to expand when they should, or began to do so just as the unit of resource was declining and found themselves facing significant deficits and having to contract. The introduction and expansion of the student fee and loan system since 1998 simply added layers of unexpected complications to this fundamental pattern. Now in 2020, funding per student having reached an historic peak in real terms in the academic year 2018–19, it seems likely that the value of the unit of resource will decline for much of the next decade as governments avoid the political costs of raising the fee to match inflation.

While it may be the case that direct political intrusion by politicians and their particular ideologies into the running of British universities has been of little significance compared to the effects of the variations in public funding, it is true that the current vulnerability of universities to declines in funding has been exacerbated by other changes in higher education policy. Two developments have been of particular importance: the lifting of the student number controls from the beginning of the academic year 2015–16 and the establishment from April 2018 of the Office for Students as the key intermediary between government and the universities. These two innovations, operating together with the growing indebtedness of the graduate population as a result of the student loan system, have created a whole set of unexpected and sometimes perverse pressures on universities.

The public, and particularly the electorate, have little knowledge or interest in what goes on in universities. But that going to university now can lead to the accumulation of substantial debt has become common knowledge. The Institute for Fiscal Studies has calculated that students from the poorest backgrounds will accrue debts of £57,000 from a three-year degree (Belfield et al. 2017). This figure is well understood by the electorate, and the Labour Party's promise in the 2019 election to abolish both fees and loans was clearly popular amongst students and parents of children likely to go to university. The Conservative Party was able to question how a Labour government would finance the debt relief, but did not commit to doing so itself. It is now clear that raising the student fee

from its current maximum of £9250 a year will be politically very difficult for any government. At current rates the annual cash value of loans to students is expected to rise to nearly £20 billion a year by 2022–3 and the value of unpaid loans in the national debt has been estimated by the Office of Budget Responsibility projections to peak of 11% of GDP by 2040 on the assumption that 47% of loans will remain unpaid (Office of Budget Responsibility 2017; Bolton 2019). These are huge sums and generate significant political constraints.

The initial introduction of the student fee in 1998 (at £1000 a year) was vigorously lobbied for by the Committee of Vice-Chancellors as a solution to the then declining unit of resource. But instead of rescuing universities, and particularly their managers, from the uncertainties of government expenditure decision-making, and smoothing out the effects of inflation as it was expected to do, the tuition fee has exposed university funding to the full blast of political debate for the first time in a hundred years. It was a solution that worked well initially, raising university resources per student from a low of under £15,000 a year in 1997–8 to £28,000 in 2017–18 at 2017 prices (Belfield et al. 2017, fig. 4.1). This was a huge boost to university incomes, allowed university managements to appear very competent and is probably a significant reason for the growth in vice-chancellors' salaries over that period. However, like all earlier 'solutions' to the funding problem, this one turned into a trap and not an escape. The combination of student-loan-based funding and the removal of the number controls (the 'cap') led government, almost inevitably, to the shift from using the funding councils as the intermediary between the state and universities, and their replacement, in England (and to lesser extent in Wales and Northern Ireland), with a regulator modeled on those designed to oversee the utilities or the transport industries. With little prospect of increased resources from the student loan system, indeed facing the almost inevitable prospect of real declines for a decade or more, university managers are now forced into brutal internal competition between institutions within the higher education system, and with little defence against constant additions and tweaks to the compliance requirements by the regulator and ministers within the Department of Education.

## The Impact of the Fee-Driven System

Funding universities through the student fee combined with a guaranteed loan and subsequently the removal of the numbers cap led to a wide range of unintended and unexpected consequences. An early miscalculation was made by David Cameron's coalition government when it raised the fee to a maximum of £9000 a year in 2012. It was expected that this would produce price competition between universities; that some would compete for students at a lower fee for all programmes, or would price the cheaper-to-deliver humanities and social science courses at a lesser fee. That did not happen. Except for a few instances, quickly abandoned, all universities from the newest to the most prestigious chose to charge the full fee for everything, particularly when it became clear that potential students were likely to consider a lower fee as a sign of lower quality or a less-valued qualification (Brown and Carosso 2013).

A further paradoxical outcome of the high student fee was that it created incentives to expand arts and humanities courses at the expense of technical and science subjects. In order to encourage clinical subjects such as medicine and dentistry, as well as those requiring laboratory and fieldwork elements, such as physics, chemistry and engineering, the government has historically funded those subjects more generously and, after 2012, continued to add substantial elements of direct funding (£10,180 and £1527 per year) to the student fee. However, the net effect of the single student fee across all degree programmes was to increase proportionately funding for arts and humanities the most: by 47% for arts and humanities but by only 6% for medicine (Belfield et al. 2017, tbl 4.1). Since the cap on student numbers was lifted in 2015, many of the more prestigious universities have substantially increased their recruitment (i.e. lowered their entry requirements) to the cheaper-to-teach subjects, resulting in newspaper stories of overcrowded lecture halls, and less contact with senior academic staff and probable reductions in the quality of the student experience (Henry 2019; Sandiford 2020).

The assumptions that informed the creation of a regulator of a market in higher education have also been modified by unexpected consequences. In 2017, after quite vigorous debates in the House of Commons and

particularly the House of Lords, parliament passed the Higher Education and Research Act, which replaced the Higher Education Funding Council for England with a new Office for Students (OfS) from January 2018. The legislation, and the regulatory framework adopted by the OfS, includes four primary objectives: enhanced access and success for students; ensuring the quality of the student academic experience; student progress to employment and further study; and value for money. The primary powers of the new regulator are those that allow it to register or deregister higher education providers, set registration conditions and monitor performance against them. The language of the Act and the White Paper that preceded it was distinctly instrumentalist, with an emphasis on outcomes related to student access, progression and achievement, particularly the acquisition of economically useful skills. The White Paper set out the analysis and policy intentions informing the new legislation and placed an emphasis on 'more competition and informed choice in higher education'. It argued that there was not enough competition between existing 'providers', and that it should be easier for new degree awarding institutions to enter the 'market', including private for-profit institutions. Students were expected to behave as consumers: 'Competition between providers in any market incentivises them to raise their game, offering consumers a greater choice of more innovative and better-quality products and services at lower cost. Higher education is no exception' (Cm 9258 2016, p. 7).

The OfS has quite quickly met with slightly perverse responses to its interventions, particularly to its duties to monitor teaching quality and value for money. In order for the OfS to fulfil its primary objective of ensuring the quality of the student academic experience, in 2016 the Department of Education introduced the Teaching Excellence and Student Outcomes Framework (TEF) and made participation in it a condition of registration for institutions. The TEF has sought to make judgements about the quality of undergraduate teaching primarily based on metrics that measure outcomes, rather than rely on the established system of academic assessors visiting universities and reporting on the management of quality. The first round of the TEF assessed whole institutions rather than individual subjects and used a limited range of data from the National Student Survey together with measures of student retention and

available information on the proportions of students going into employment and particularly higher-skilled jobs after graduation. These metrics were adjusted, 'benchmarked', to allow for the entry qualifications and some other characteristics of students, and the balance of disciplines within institutions. The results were used to award quality 'medals' to universities, ranging from gold, through silver to bronze.

As a result, the first iteration of this method, while in principle declaring all institutions receiving medals to be satisfactory, effectively defined the two-thirds not awarded gold as less than excellent, and these included some of the most prestigious universities in the country. The sector currently awaits a report into the effectiveness of the TEF method, but there has been significant disquiet about the message it sends to students, particularly international applicants, and the validity of the methods it uses. For example, the House of Commons Education Committee in 2018 reported 'mixed reviews of the TEF and its ability to signal the quality of teaching in a broad range of institutions. We heard strong objections to TEF from Professor Louise Richardson [Vice-chancellor of Oxford University]. She called it a "costly distraction" and the Russell Group has made no secret of its reservations about the metrics used. We also received written evidence from the University of Sheffield which said that although the ethos behind it is correct, its implementation is fundamentally flawed' (HC 343 2018).

One of the more disconcerting aspects of the project to regulate higher education as a competitive market has been the reluctance of students to either behave or conceive of themselves as consumers. There is little evidence to suggest that students assess their experience of university in consumerist terms. The Higher Education Policy Institute has since 2006 conducted an annual academic experience survey of a large sample (over 14,000 in 2019) of undergraduate students to assess their evaluations of their education. The survey focuses on a range of areas, including value for money, teaching quality and experience versus expectations.

Although the question is not asked directly, there are few signs in these rich survey results that students think of themselves as consumers of a product. Rather 'many students recognise their own responsibilities in terms of what they contribute to their own experience. Students clearly like to be challenged, and reasonably expect that they will be, often being

prepared to make significant effort in return' (Neves and Hillman 2019). There is a long history of government ministers complaining that students, conceived of as consumers in a market, cannot access appropriate information to inform their choices of universities and courses. As a result, institutions have been required to spend considerable resources for publishing information on their websites or submitting it to central data sets. The funding councils, and more recently the OfS, have regularly changed and elaborated the information requirements universities have to fulfil. From 2011 this was a 'Key Information Set', then replaced with 'Unistats' and since September 2019 by 'Discover Uni'.

However, there is considerable evidence that students do not use these sources to make their choices. Recent evidence suggests only a third of all applicants to HE courses had some knowledge of the TEF at the time of their application and 15% used the TEF in their decision-making (Vivian et al. 2019). The House of Commons Public Accounts Committee investigated whether it was possible for students to obtain information that would allow an informed consumerist choice of university and course but broadly concluded students are likely to be overwhelmed by the volume and variability of the information available and that they essentially need advice and not more information. Implicitly the committee agreed with one of their expert witnesses (Professor Roger Brown) that 'providing good information to students to inform their choice was an "insuperable problem" in the higher education market...because it is impossible to ensure valid, reliable, comparable and tailored information' given the range, complexity and individuality of university-learning and its outcomes (HC 693 2018). As Kernohan (2020) has written, 'there has never been any indication that prospective students find any of this information useful – every serious study of decision making patterns suggests that personal contact with the institution in question (be this with current students, staff, friends with experience, or on a visit) is the gold standard'.



## Conclusion

Since 2012, British universities have experienced an increasing pace of change, particularly in how they are funded and regulated. In 2020, they now face considerable uncertainty about the volume and sources of future funding and in the distribution of students across the sector. The coronavirus pandemic has amplified forces allowing some universities to prosper while others are forced to make reductions in staffing and to close degree programmes. The main consequence has been the development of quite brutal and probably wasteful competition for students from both the home market and overseas. The main longer term driver of these changes has been a shift from a system of funding allocated by government and civil servants to a market- and price-driven system in which resources follow student choice. This change took place slowly and incrementally over fifty years. It was not caused by neoliberal or populist values, but by governments seeking to control public expenditure and university leaders seeking extra income. Almost all the other policy problems now preoccupying the higher education sector derive from these core developments: whether they be student choice, which programmes grow and which decline, value for money, consumer information and rights, unequal access and outcomes for different sorts of student (whether the differences be parental income, ethnicity or disability), grade inflation, and, not least, vice-chancellors' salaries.

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# 5

## The Paradox of Democracy

Samuel Rachlin

### Introduction

The year 2019 was not a memorable one for the world's populist parties and movements. The picture is not so clear any more. In the USA the mid-term elections were a defeat for Trump, in Spain, VOX did not get as many votes as predicted, while the Socialists did make progress. In Poland and Hungary, the ruling populists were defeated in the local and regional elections like it happened to Erdogan and his party in Istanbul. And the Danish election was a dramatic defeat for DF, one of the established populist parties in Europe. Later in the text, this is described in detail and I am making a case in support of this view. It has started to become more varied, with signs that the populists' growth may have peaked because they are unable to deliver the promised goods, are involved in scandals, or simply lose elections. In the wake of the

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EU-election and some national elections, there are some signs that the voters have reached a saturation point (Taylor 2019).

Both the US mid-term elections in November 2018 and the EU elections at the end of May 2019 showed that the populists cannot take their progress as a given. The Danish parliamentary election two weeks after the EU elections was a continuation of the same trend, with a strengthening of the political centre and the powers supporting liberal democracy. But no one has called off the battle with the populists. They continue to have an impact on the political agenda, and there is still a great deal of turbulence and uncertainty in the political systems in both Europe and the USA as well as some other countries like India, Brazil and the Philippines.

Nonetheless, it appears that the established parties are becoming better at handling the populist challenge. No one can say with certainty whether the political uprising that has been building since the turn of the century has lost its momentum, but some indicators point in that direction. The tensions over the last two decades have put pressure on and threatened democracies from the twentieth century to a degree not seen since the Second World War. It has forced politicians from the established parties out of their comfort zones and made them think and act in a new way and redefine their values and goals, as well as the political rules.<sup>1</sup>

In this time of unrest and upheaval, we may be witnessing the populist offensive starting to run out of steam. Perhaps it is a turning point, with the break of the old right–left divide that has characterised the twentieth century. There are signs that a change of political scenery is taking place with completely different dividing lines in the twenty-first century's economic forces and social fabric with new types of political movements and groupings, like the identitarians on the right and a resurgent left (The Economist 2019). This will happen across the inherited political dogmas and conventional life patterns and will be driven forward by the unavoidable generational change and new technological revolution.

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<sup>1</sup> In Denmark, the Social Democrats courted the populist Danish People's Party, and both in Austria and Norway, the conservative parties formed coalition governments with populist parties that, in the past, had been political untouchables.

It is no longer a remote or abstract thought that the twenty-first century will manifest new political culture with morality values and behavioural patterns that will be markedly different from the norms and traditions that characterised the previous century. This is the domain of futurologists, but the break-up and clash in the first two decades make it easier to predict that we stand on the cusp of an epoch change that will have deep and long-lasting effects while a new world order takes shape.

It is not necessary to talk about a transformation of the dimensions and the range that Harari (2015) writes about in his book *Sapiens*, with a vision that stretches not only across centuries but millennia. We can be content to look at the change that is taking place now from one century to the other, of which we are all a part, and which will perhaps stretch over a period of 50 years—no more than the blink of an eye in historical terms. But in terms of a human life, it is a long time and sufficient to trigger wars, crises, and disasters, as well as to identify and describe the trends and phenomena that characterise the period. This is an attempt to put this period of upheaval and disruption into a historical context, and show that although we are preoccupied with it now, we are not able to see the scope or the consequences of the transformation. This however, should not prevent us from trying to describe what's going on.

Populism is one of the phenomena that the media has used more and more space to elucidate and explain, because it has characterised the first two decades of the new century. That is not to say that it will have a lasting impact on political and social development, but it is impossible to ignore as one of the symptoms of our time.

A number of books have been published in several languages—including Danish (e.g., Hansen 2018; Libak 2018)—which have helped to define and clarify concepts of populism, making it easier to see which forces are at stake and which political and economic factors trigger them. Defenders of populism have emerged as populist sympathisers, calling for tolerance and leeway for populists and their manifestations.

The populists' significant victories—the 2016 UK referendum on Brexit and later in the year Donald Trump's election victory in the USA—opened the gates to what many have perceived as the era of populism in Western democracies. Both events triggered shockwaves in the established political systems and amongst the general public in Europe and the

USA. It was a landmark political break-up that, in continuation of Russia's invasion of Ukraine and the subsequent annexation of Crimea, reinforced the experience of historical shifts and landmarks. A new world order was taking shape without anyone yet being able to name it. Breaking up, unpredictability, and uncertainty are some of the signs of the time and have spread more insecurity than has been known in Western democracies since the Cold War ended 30 years ago. At the same time, the technological revolution has played its part in increasing uncertainty and tension. Big data, big brother, and deep fakes are no longer a dystopian fantasy of the future as in *Brave New World* or *1984* but are a part of our reality and have given most people a sudden wake-up call after the dream of technology's blessings.

In this chapter I will consider developments since my book, *The People and Power: Populism and the New World Order*, was published in 2017 and look at events that have characterised the period and indicate the direction in which populism and populist parties are moving in the Western democracies (see also Eatwell and Goodwin 2018).

## Brexit

In Europe, Brexit and the political chaos in the UK have been the recurring themes that have dominated the political debate over the past two years. It has gone from bad to worse and continues to divide the population. The British first reacted with shock, which was replaced by disbelief, abandonment, and depression primarily among the 'Remainers', representing slightly less than one half of the population. As the parliamentary system went into deadlock and political leaders, with Theresa May at the head, tried desperately to solve the Gordian knot, Britain appeared more and more as a loser nation at odds with itself and the European community of which it had been a member for nearly half a century. A leading country throughout much of Europe's recent history and a parliamentary role model began to crack and was unrecognisable to its admirers. Britain seemed to be wandering in search of its identity.

The British chaos was the reward for populists led by Nigel Farage (UKIP leader) and Boris Johnson, who became one of the most vocal

Conservative EU opponents offering a utopian view of life outside the shackles of the EU spreading. The warnings and rhetoric of spin and fake news propelled Boris Johnson into the office of Britain's Prime Minister.

Theresa May's farewell speech will be remembered for her emotional tears when she expressed her gratitude that she had been allowed to work for the country she loves. Shakespeare and twenty-first-century politics met for a fleeting moment before May walked back towards the door of 10 Downing Street.

As Britain's new prime minister, Boris Johnson threw the country into a new crisis by suspending Parliament in order to prepare for Brexit without a deal with the EU. Britain's proud anthem 'Rule Britannia' was replaced by 'Rule Banana Republic'. However, the British Supreme Court intervened with a unanimous ruling that the suspension of parliament was a breach of law and was cancelled as if it had never occurred.

In the midst of all the misfortune Europe had lived through in the preceding months, one person rejoiced and triumphed—Nigel Farage bathed in his fame like a reality star while preparing for the EU elections in late May 2019 as chairman of the newly formed Brexit Party. He was proud of the havoc he had caused the UK and the EU. He saw himself as the leader of the populist world revolution that he had launched immediately after the Brexit referendum. Farage was in his element.

The Brexit drama has cast a long shadow over Britain and across Europe. It has been a stress test for the whole of the EU. Brexit and the British journey of suffering were major contributing factors to the gloomy downturn that covered Europe like a blanket in the months leading up to the EU referendum.<sup>2</sup>

While Farage was paving the way for himself and his new party in the UK, Italy's Matteo Salvini emerged as the person who would seek to gather European populists into an alliance that would take power and steer Europe in a new direction. He saw the EU elections as a springboard

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<sup>2</sup> Europe's gloominess, preceded the referendum because of worries of the populist wave sweeping through the continent, fear of the consequences of the British referendum and EU's midlife crisis. The EU suffered from paralysis and inability to reform itself while countries like Hungary and Poland were becoming increasingly hostile towards Brussels and the values which the community is based on. Putin and Russia post Crimea were another reason for gloom rather than happiness. More than enough to be gloomy about.



to secure himself a European leadership role and at the same time consolidate his own position in Italy. Salvini's goal was to organise the populist parties into a bloc called the European Alliance for People and Nations. He arranged conferences with like-minded parties, such as Alternative für Deutschland, the Finnish Nationalist Party, the Finns Party, and the Danish People's Party. At a meeting in Milan a month before the EU elections, Salvini proclaimed: 'The European dream is being threatened by the bureaucrats and bankers who govern Europe. They have controlled Europe for far too long. It must be controlled by the people.'

His vision was that right-wing populist parties would seize power on a solid popular mandate and give Europeans a new future. He promised that he would do everything to prevent an Islamic caliphate in Europe, which would happen if the Left gained power, Salvini and his allies launched an offensive, for a populist spring to maintain public attention on the populist politicians and their objectives. They were setting the political agenda and challenged the established middle parties to fight. Their message was not to be misunderstood: This was their moment.

## The European Spring

The populists felt that spring 2019 belonged to them. Spain's parliamentary elections in late April confirmed this, as the right-wing party Vox sailed into parliament with 24 seats, and more than doubled that number to 52 seats at the following election in November, 2019. For the first time since the late 1970s, a party from the far right had entered the Spanish parliament. Vox offered a programme that closely aligned with Europe's other right-wing populist parties, with an emphasis on nationalism, a restrictive immigration policy, attitudes based on discrimination against women, and opposition to the Catalan separatists.

Some of the populist leaders were close to appropriating 'The European Spring' as an election slogan. They saw the elections as their chance to demonstrate that new winds were blowing across Europe and that the time had come to seize power, steer Europe in a new direction, and end

the dominance of the old parties and the system which they represented, i.e., liberal democracy.

A coordinated strategy was proposed in close cooperation with President Trump's former chief strategist and ideologue Steve Bannon. Bannon, ousted from the White House after a dramatic showdown with President Trump, had settled in Brussels as a self-proclaimed saviour and advisor for the European populists in close cooperation with Brexit's Black Prince Nigel Farage. Bannon called his organisation 'The Movement'. The idea was to spread the populist revolution by helping European right-wing populists to win power as he thought he had done for Donald Trump. Bannon needed to reinvent himself, and the European Parliament elections were to be the springboard. He helped found and partially finance a populist centre in an old monastery in Italy, in Trisulti, a small village southeast of Rome. The centre's official name was the Academy of the Judeo-Christian West. According to Bannon, it was to be a nesting box for the nationalist, populist leaders of the future. Bannon talked about the academy as 'the gladiator school'. The message was clear: The populists were on the march.

It was only the outline of a new triumph that accounted for Farage and his crowd of new and old supporters. In other words, we had not yet seen what Farage would be able to deliver at the EU Election while some of the other parties like the Finns Party had already delivered at their national elections. It was a tangible triumph for the Brexit Party's sister party in Finland, the Finns Party, which had secured 17.5% of the vote in the elections in April 20. They were right behind the Social Democratic Party, which won by a hair's breadth with just 0.2% more votes. The Finns Party had upset the balance and made it difficult to solve the parliamentary puzzle. It was the same pattern that had occurred in both Sweden and Germany. In both countries, the negotiations for a new government went into deadlock, and it took months before a government could be formed, but not without creating uncertainty and weakening the two countries' well-established democratic systems.

In France, Marine Le Pen was rebranding herself and her party under the new name Le Rassemblement National. She was establishing a new political profile, populism with a human face to attract more voters from the centre ground. That was the kindness that Le Pen radiated during her

visit to Copenhagen, where she met the Danish People's Party's vice president, Søren Espersen, to confirm that the two parties had moved closer together and would be in the same right-wing populist bloc in the EU Parliament.

There was jubilation and triumph in the White House with a demonstration of how a populist leader handles victory and success, which was almost immediately turned into ammunition against critics and political opponents demanding retaliation and punishment. This happened when, after nearly two years of work, prosecutor Robert Mueller released his report on Russian interference in the 2016 US election campaign. Mueller and his team wrote that Trump only avoided committing obstruction of justice because his closest advisers and staff refused to carry out his orders.

Mueller's investigation was by no means an acquittal of Trump, leaving it to Congress to decide how the findings should be handled and the consequences for the President. But that meant nothing to a President covered in Teflon, which everything slipped off. He remained unaffected and continued to operate in his self-made reality, focusing only on the truth that suited him.

This is not only significant for the way he governs, America and the American electorate, but also for other politicians who look to the US President as an example and use him as the political gold standard by which all populist politicians want to be measured.

In May 2019, Volodymyr Zelensky won the Ukrainian presidential election and rounded off the European spring with a salute that resonated throughout the corridors of power and the international media. It was in line with populist experience in Europe. But Zelensky stood out from the pack. Zelensky's profile and campaign contained elements in terms of rhetoric and attitudes that reflected typical populist traits. He made every effort to emphasise that he was not part of the established political system, and played on the contradictions between the people and the Ukrainian elites who have enriched themselves through their political connections. He would do away with all the decay that has plagued the country under his predecessors and which voters identify as a system that only benefits the privileged.

One of his promises was that he would not cling to office but would only serve one term and not run for re-election. The voters perceived the

attitudes and statements as refreshing. They saw that he could answer with relevant, striking formulations, as he did in the final duel with President Poroshenko when he replied, ‘I am not your opponent. I am your judgement’—the implication being that the judgement was to be given by the Ukrainian voters.

Although the spring and the run-up to the European Parliament elections appeared to be to the far right’s advantage, the picture was not so clear. The Spanish socialists under Pedro Sanchez had made progress. One of Slovakia’s female politicians, Zuzana Caputova, had remarkably broken the right-wing trend to become the country’s first female president. She won on a liberal-democratic platform declaring war on corruption and reaffirming her support for the EU. Caputova has explained that her winning formula was listening to voters and spreading confidence, because she realised that people had reached a saturation point and were tired of conflicts (Applebaum 2019). She may stand out as a lone swallow among the leaders of the three other Visegrad countries—the Czech Republic, Hungary, and Poland—where Presidents and government leaders had without exception embarked on a populist and nationalist course. But liberal trends and movements are also being spotted in other East European countries and gaining traction, revealing that the political picture is not so conform as it may seem.

Some of the populist sympathisers such as Anna Libak in Denmark seized the opportunity to give the populists a pat on the back ahead of the EU election. In a comment in *Berlingske* (Libak 2019), she distanced herself from the populist critics and wrote that it was positive that parties such as the Austrian Freedom Party, Salvini’s Lega, and Le Pen’s Le Rassemblement National wanted to reform the EU. It was something to be excited about. Rather than dislike the right-wing radicals, Libak advocated appreciating their efforts. It would bring about a popularisation and democratisation of the EU due to increased turnout.

Spring came and went, but it did not get as hot as the populists and their sympathisers had predicted. It was lukewarm. The EU elections did not live up to their expectations. Some right-wing populist parties such as Salvini’s Lega and Farage’s Brexit Party saw significant progress. The Brexit Party won more seats in the European Parliament than the British Conservative and Labour parties combined. The elections were a triumph

for Salvini and Le Pen, whose parties received the most votes in Italy and France. Some populist parties held the fort, while others, such as the Danish People's Party, went backwards. Overall, it was a disappointing result for the populists and their right-wing bloc, Identity and Democracy, to gain less than 10% of seats in the European Parliament. It was far from the influence over the EU and European politics that Bannon, Farage, Salvini, and Le Pen had talked about. The populist dream of more power and influence in the EU Parliament collapsed (Walker 2019a, b) and the elections may have marked a turning point in what, to many, looked like an unbroken record of growth and success for the European populists (Nougayrede 2019).

In the wake of the election defeat, a series of other populist setbacks followed over the summer and autumn 2019. What looked like a mobilisation offensive with Bannon, Farage, and Salvini on the front line and the Yellow Vests on the streets of Paris and other French towns and cities led some to believe that populists were achieving a new, coordinated breakthrough. But it did not materialise. With almost 38% of the votes in the polls, Salvini saw the opportunity to take over as Prime Minister. But he overplayed his hand in the rivalry with the Five-Star Movement, his coalition partner in government. Suddenly, he was outside the government, without power or influence. Still popular with his voter base, he is not out for the count, but he is weakened and is unable to throw his weight around in the political establishment as he did in the past (Giuffrida 2019).

Following a corruption scandal, the Austrian Freedom Party was punished by voters in the election at the end of September 2019, in which they lost 20 seats. The party leader has left Austrian politics (Norris 2019; Oltermann 2019).

The right-wing populist parties in Eastern and Central Europe have had a firm grip on power, especially in Hungary under Viktor Orbán and in Poland with Jarosław Kaczyński at the forefront of the all-dominant Law and Justice party. But two elections in both countries in the middle of October 2019 revealed that the two parties are not invincible (AFP in Budapest 2019; Hanley 2019). In both cases, the opposition parties came together across party boundaries and their ideological and political

disagreements. They lined up in blocks to break through the government parties' monopoly on power.

Admittedly, Law and Justice received approximately 44% of the vote, but the opposition bloc overall did so well that it has weakened the governing party. It will be more difficult to dominate Polish politics to the same extent as before. For the first time in four years, the government will not be able to do as it pleases and pass and implement laws without problems. The conclusion amongst the opposition parties was that if they are able to work together, they can have real influence and not allow the government to do whatever they want.

A similar pattern was seen in the local elections in Hungary, when Viktor Orbán and his right-wing Fidesz party suffered an outright defeat for the first time in 10 years. The party lost the mayor's post in Budapest and a number of other Hungary's major provincial towns. The message and the voters' verdict was not to be mistaken—the opposition parties' strategy worked, and for the first time they succeeded in breaking the grip that Orbán and his party colleagues have had on Hungarian politics. It is not a given that the opposition parties can transfer their strategy directly to the parliamentary elections in 2022, but for the first time they have demonstrated that they can find a consensus. It is a preview of what can be achieved, and it opens up the prospect of Orbán and Fidesz facing a difficult task in the 2022 elections.

In Germany, the far-right populist party, AfD, achieved big gains in the eastern part of country that was part of the old DDR. But despite its success in regional elections in the fall of 2019 in Saxonia and Brandenburg, AfD was unable to topple the two mainstream parties, the CDU, the Christian Democrats, and the SPD, the Social Democratic party, that have been dominating German politics since the Second World War (Connolly 2019; Kahane 2019).

The parliamentary elections<sup>3</sup> in Denmark in the summer of 2019 were an example of how mainstream parties can arrest the advance of populism. One of Europe's oldest populist parties, the Danish People's Party, lost more than half its seats and the most extreme parties such as Stram Kurs (in English, Hard Line) were completely out. While most social

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<sup>3</sup>The following three sections are based on my column in *Berlingske*, 14 June 2019.

democratic parties in Europe are in crisis, the Social Democrats with Mette Frederiksen at the forefront were able to form a government.

After the election in 2015, the Danish People's Party's overwhelming progress became a huge challenge for both Venstre and the Social Democrats. To win back their voters, the two parties decided not to wage war on the Danish People's Party and instead revived the old hippie slogan, 'Make Love Not War!' They embraced the Danish People's Party and loved it to death. The two old parties adopted the Danish People's Party's foreign policy to show voters that they could match the party's attitude towards immigrants and refugees. The Social Democrats took a little longer to devise their strategy, but when the election came, the two established parties squeezed almost all the air out of the Danish People's Party and revealed the populists' chronic weakness: They cannot deliver. Trump, Johnson, his Brexit supporters, the Italian populists, or the other right-wing parties cannot master the 'authentic' political craft.<sup>4</sup> They are good at talking and causing commotion, but not at delivering the political goods. As whistle-blowers, they may identify issues such as immigration, inequality, the downsides of globalisation, and to overlooked voter groups, but, they are unable to translate it into policy. The Danish mainstream parties' strategy proved to be deadly to the populists, and the world noticed a new Danish model.

Later in 2019, things went wrong for Steve Bannon and his Judeo-Christian Academy. The project sparked fierce resistance among local residents. By late summer the Italian authorities intervened and closed the gladiator school because the group behind the project had not paid the rent as agreed. Bannon's European offensive came to nothing? Citing a new book on Trump, *The Best People* by Alexander Nazaryan (Walker 2019a, b), the US media wrote about a possible comeback for Bannon in Washington because Trump was considering bringing him in as his advisor for the 2020 election campaign.

The populist decline, and in some cases the failure, has been noted by their political opponents and analysts in the international media.

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<sup>4</sup> Indeed, winning an election is the criterion for mastering the authentic political craft. Mastering such political craft is to show that you can manage change and show tangible political results in terms of laws and programs that create more prosperity, equality, and justice for a nation.

However, as the British *The Economist* wrote, ‘They are down, but not out.’ The weakening has occurred, but it does not mean that the populists are a spent force. A poll in Sweden in November 2019 showed that support for the Swedish Democrats, the populist right-wing party, had risen to 24% of the vote, making it the biggest party in Sweden. Whether populism is here to stay remains to be seen.

## The Time

The first two decades of the twenty-first century have been conducive to populist parties and movements because of the upheavals, crises, and cultural clashes that have spread growing unrest and uncertainty in Western democracies. It has been difficult to find meeting points and direction in a time that, with its huge technological breakthroughs, seems both promising and threatening. The media has been busy reporting the ominous signs of upheaval, terror, and climate change that have spread from voters to the corridors of power, military staff, and think tanks in a world that has come out of step with itself.

The turmoil and nervousness assumed symbolic dimensions when Notre Dame in Paris caught fire and suffered great damage. Following the turmoil and clashes between authorities and the Yellow Vests, the fire underscored the gloomy mood of downfall and abandonment that the hard-pressed French had lived under for months.

Authors in the USA and Europe have published a series of books on the breakup of the world order with democracies having difficulty adapting and keeping pace with the accelerated pace of change (Diamond 2019; Fredrickson 2019; Grayling 2017; Krastev and Holmes 2020; Karnitschnig 2017; Levitsky and Ziblatt 2018). ‘The liberal world is fragile and volatile,’ writes American political scientist Robert Kagan (2018) in *The Jungle Grows Back: America and Our Imperiled World*, ‘like a garden, ever under siege from the forces of history, the jungle whose vines and weeds constantly threaten to overwhelm it.’

The bleak mood is not surprising. Fearmongering and deception are among the favourite tools of populist leaders who have been playing up the danger of invasions by immigrants and refugees. They are a threat not



only because of their different faiths or because they spread diseases and crime. The biggest threat is that, ultimately, *they will* replace the native populations and take over their countries. Likewise, populists exploit economic inequality and social injustice to provoke more grievances among voters. Fear knows no boundaries, ideological or physical. When people are gripped by fear, it does not matter whether they are on the right or the left. Demagogues know how to gain payback by playing on emotions and how fear can unite people across political divisions. Today's populists have mastered this art not only by exaggerating facts or presenting alternative facts, but by spreading lies and falsehoods (Fieschi 2019b).

At the same time, there have been ominous forecasts and warnings from the Democratic camp, where there is a growing fear that liberal democracy may succumb to the pressure from nationalist and authoritarian forces advancing in Europe and the USA; at the beginning of 2019, a group of European intellectuals published a manifesto warning against the populist onslaught (Levy et al. 2019). Liberal democracy is no longer the safe haven. The constellation of fear, worry, and uncertainty from both populists and democrats has not been conducive to hope and optimism.

Our times open up opportunities for progress and gains for the benefit of all of humanity. However, we are navigating in dangerous waters, and have to deal with the conflicts and polarisation that are unfolding across borders and cultures, causing the seismometer to spike dangerously. Here, at the beginning of the twenty-first century, Western democracies have again revealed their own fatal paradox: Democracy can be used to abolish democracy. No one should underestimate the force of the populist leaders and their ability to hijack democracy and turn its own tools and strengths against itself by identifying its inherent weaknesses and paradoxes to kill off vital institutions and systems that keep the house of democracy together (Fieschi 2019a).

All this takes place as modern societies adapt to the Fourth Industrial Revolution and the consequences of the political, social, and cultural conflicts that arise. This transformation is happening at an accelerating pace and causing changes in old industries, sectors, and labour markets to an extent and at a speed not previously experienced. The Fourth Industrial

Revolution will make it difficult for workers and politicians to keep up with and adapt to the new reality.

A new space has emerged with great opportunities, but also with increased risk, because the changes have caused boundaries and conventions to flow. The doors are open to both visionary entrepreneurs and political thinkers, as well as those with completely different interests and more sinister intentions. The snapshot of our time is complex, skewed, and flickering. A kaleidoscope that cannot be shaken into place.

New players are appearing on the field, while some of the old ones are fumbling to find their way in a jumble of events and actors in a circular geopolitical dance that looks as though it may end in a game of global human knot. ‘Just relax’, you should perhaps say to yourself. Wait a minute, take a deep breath and feel the time: ‘Ah, the taste of the twenty-first century’s second decade’.

‘The Roaring Twenties’ was the name of the third decade of the twentieth century in the wake of the First World War and as a prelude to the worst horrors of history during the Second World War. What nickname will ‘our’ twenties get? ‘The Messy Twenties’ sounds like an appropriate name. Future historians can rejoice.

We are living through a period of dramatic changes with a speed and challenges that no generation has faced in the past. As participants and witnesses, we are too close to seeing where this dizzying disruption will take us or what the implications will be. Fasten your seatbelts is not a strategy, strengthening liberal democracy is. That is best done by enhancing the rule of law, protecting freedom of speech, and by working diligently to detect lies and deception and prevent them from deconstructing reality and replacing it with falsehoods.

### **... And Fewer Too Little**

Politicians, researchers, and the media are vying to capture the attention, seize the spirit of time, crack the codes, and be the first to tell and explain what is happening and where the world is headed. The problem is that, for the most part, and for most people, it is a guessing game, because we are far too close to something big to be able to discern who and what is

at stake. It takes time and distance to get the overview and perspective, but even with the help of technology it is not possible to break through the age's impenetrability.

We can agree that one of the reasons for the nervousness is that we are in the midst of a transitional period with unpredictable changes. It leads to uncertainty about direction, rules, and requirements, and it makes it difficult to orientate oneself in a world characterised by change.<sup>5</sup>

The established systems and models that have existed for many decades are about to be discarded or destroyed.<sup>6</sup> It is not only provoked by the technological revolution but also by the political, social, and cultural patterns that are in a state of change. The great recession, which broke out in flames in 2008, had a long-term fallout and had an impact on a large number of people who were nowhere near Wall Street or other financial centres. They were collateral damage—victims of the consequences. The technological advances have made many people's existence easier, with increased wealth, higher living standards, and more security. But that development has had costs for a large number of people, often the weakest, who stand as losers of the age.

Grundtvig was right when he described the Danish conditions 200 years ago, 'And yet in wealth far we have gone when few have too much, and poor are none.' Those words must be reworded if they are to reflect the status of the modern world, where very few have too much, and far too many have too little. Growing inequality is the fact that the media and politicians refer to with a statistic revealing that 26 of the world's richest billionaires possess more wealth than just under four billion of the world's poorest population together (Alvaredo et al. 2018; Neate 2017; Elliott 2019).

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<sup>5</sup>It is true for all historical periods that have witnessed dramatic changes. But it's hard, to mention any period that has seen more dramatic and sweeping changes than the disruption the technological revolution has unleashed in terms of speed, depth, and range. In my view the period we are living through is extraordinary even in comparison with other big shifts in our history like Gutenberg's printing press, the Enlightenment, or the Industrialization.

<sup>6</sup>What the technological revolution has meant in the past 20 years for commerce, science, communication, infrastructure, education, the media, and consequently for politics and the social fabric in modern western societies as well as the developing world is obvious and described in detail in the existing literature and the media (see, e.g., Fourth Industrial Revolution on World Economic Forum, [www.weforum.org/focus/fourth-industrial-revolution](http://www.weforum.org/focus/fourth-industrial-revolution))

The losers in this development are the new digital proletariat, and it is little comfort to them that this development has helped lift many millions of people out of generations of poverty and misery in the countries that have taken their jobs. They are the people who are enrolled as members of the new loser class. They are populism's cannon fodder. The populists' message is not to be mistaken: The irresponsible political and economic elites skim the cream, take care of themselves, and mock the people's interests and needs. In many cases, the voters apparently don't mind the disparity between the populist leaders, who more often than not represent the privileged elite, and 'the deplorables', as Hillary Clinton called Donald Trump's core voters among blue collar workers. This group of voters seemingly does not have any problems with believing in the promises of a billionaire like Trump who tells them that no one understands them better than he does and no one is able to grant them a better and more comfortable life like he can.

Two other elements have undermined the new proletariat's security and self-perception. Problems with immigration and cultural clashes and new relationships and family patterns have turned conventions and dogmas upside down. It is easy for demagogues to exploit the contradictions and use ethnic, religious, or sexual minorities as a lightning rod and a threat to existing values and life patterns. If only you can keep all the wrong ones out and let all the right ones in, then everything will be fine.

When populist leaders speak, it is rarely shyness that weighs them down. Such virtues are not included in populism's manual. It gives no points. Rather, it is shamelessness and outrage that is set high in this political genre and strategy. They are not subject to conventional thinking or behaviour. They must speak as if they have seen and tried everything. They know everything and have the explanations and the solutions. They have to play the role of saviours, perhaps not as if they can walk on the water, but almost.

Donald Trump masters this technique to perfection. He has rewritten the rules of campaigning, governing, and statesmanship in a manner that was hard to imagine before he moved into the Oval Office. Ruling by self-aggrandizement and instincts instead of the intellect and the established norms for political leadership paid off in his case when he defied all predictions and assumption during the campaign and on a regular basis

ever since during his three years as president. It has puzzled most other politicians, analysts, and political scientists, but the combination of blatant shamelessness with the populist sense of how to capture the loyalty of voters in times of hardship and grievances has worked to Trump's advantage. His grandstanding has not scared off his voters. On the contrary it has worked to build up his support and popularity among his voter base that seems unwavering as he entered the campaign for his second term in The White House.

## At the Crossroads

The consequences of globalisation, immigration pressure, accelerating automation and increased inequality, have far-reaching political consequences. The new losing class has become politically homeless because they feel let down by the parties and politicians for whom they have traditionally voted. Electoral migrations in recent years have had an unmistakable and, for many, surprising tendency, where the voters have gone from voting for the classical workers' parties to supporting radical, nationalist, right-wing parties. It occurred during the 2016 US presidential election and at one election after the other in Europe, where the old workers' parties have been sent out in the cold because voters have made 180-degree turns and switched to the right-wing nationalist parties under populist banners and slogans.

Germany's former deputy foreign minister and former US ambassador Wolfgang Ischinger put it into words when, in mid-February 2019, as president of the traditional annual Security Conference in Munich (<https://securityconference.org/en/msc-2019/>), he wrote a welcome greeting to the participants: 'The whole liberal world order seems to be falling apart. Nothing is as it once used to be. We are experiencing an epochal shift; an era is coming to an end and the outline of a new political age is taking shape. No matter where you look, there are countless conflicts and crises that affect us Europeans.'

There is a great deal of uncertainty about where the world is going, but, like Ischinger, many indicate that we are standing at the edge of the abyss. He did not mince his words and called the abyss the synonym of

war. As host, he had defined the conference theme as ‘To the edge of the abyss – and back again?’ In his assessment, the current world order is falling apart, and no one can say who will pick up the pieces or whether anyone wants to pick them up at all. Ischinger’s words were reflecting Germany’s own painful historical experience and the tragedies that have tortured the minds of so many from the post-war generations of Germans. As captured by the famous poem of the anti-Nazi German pastor, Martin Niemöller (1892–1984), the burden of history has left a lasting mark in the minds of Germans as a reminder of the perils of moral failure and neglect: ‘When the Nazis came for the communists, I was silent, I was not a communist. When they locked up the social democrats, I was silent, I was not a social democrat. When they came for the trade unionists, I did not protest, because I was not a trade unionist. When they came for the Jews, I was silent, because I was not a Jew. When they came for me, there was no one left to protest.’

Ischinger delivered his speech in München, shortly after a young Dutch historian, Rutger Bregman, stirred things up at the World Economic Forum’s annual meeting in Davos in January 2019. Bregman had been invited to talk about his book *Utopia for Realists*, in which he argues for minimum wages and shorter working weeks. But at a panel debate on inequality, he decided to talk about a greater concern, namely the efforts of billionaires to evade tax. He chastised the super-rich telling them that they preferred to talk about equality, justice, and openness instead of tax evasion and that the rich did not pay their share.

To Bregman and his “millenium generation”, the capitalism of our times is out of control, and has to be tamed if it is to be saved. It was a new trend that broke through in Davos and in the USA during the mid-term elections, where the millennium generation started to make itself heard. Politicians and activists such as the newly elected 29-year-old Democrat Alexandria Ocasio-Cortez and Rutger Bregman ushered in a political force that pulls in a different direction from populism and wants to deal with the urgent issues of the time in a different way than the populists.

## The First Cyber World War

The new political signals and the economic fluctuations have created distinctive gaps, because of political contradictions and greater inequality between the super-rich, whose fortunes continued to grow, and those who find it increasingly difficult to manage. The financial crisis and the Great Recession stood as milestones, when the banks got lifelines and the losers suffered declines in living standards.

A significant landmark was Russia's invasion of Ukraine in March 2014 and the subsequent annexation of Crimea. A rule-based world order was abolished from almost one day to the next, creating a whole new framework for politics, diplomacy, and the use of force in a process with far-reaching geopolitical consequences.

Vladimir Putin's breaking the rules and assault on Ukraine and the Brexit referendum coincided with Donald Trump's victory and the rise of populism. At the same time, the use of social media had become widespread, and it slowly began to dawn on the general public and policymakers that a new political climate was emerging and that a new form of warfare was taking shape. It was based on undermining and destabilising Western democracies.

That development will mark a significant distinction. Russia under Putin has not asserted itself as a high-tech pioneer, but Russian civilian and military intelligence services were quicker than most to discover how to use the new media to promote disintegration tendencies in Western societies. The Russians were among the first to take advantage of social media and start what may in hindsight come to be known as the First Cyber World War a hundred years after the start of the First World War.

The Russian intelligence services threw themselves into the new power game with the purpose of undermining and destabilizing the Western democracies by spreading confusion and uncertainty and exert influence on politics both in the USA and Europe (Nadeau 2019; Nardelli 2019). In the meantime, political leaders along with the media, and users of the social networks in the West, discovered that the forces that had been released and become easily available to everyone unleashed new energies and forged new behavioural patterns. This was expressed, among other

things, in unabashed attacks on immigrants, refugees, religious minorities, and those who were different as part of the ordinary tone and exchange of ideas. This occurred at the same time as the scope of social tolerance expanded, but it also meant that there was greater leeway for the intolerant who are spreading hate speech and prejudice. Some of the demons of the past have again started to expand, with the racism and hatred of minorities that are different from the norm (Holm 2019; Davey and Ebner 2019).

The political systems in the West are undergoing transformations of historic proportions. Even though the daily dose of information is greater than ever, most are only able to capture and consume a fragmented picture of reality. Coherence and a deeper understanding of what we are facing is something that takes significantly longer to mature. It is sad enough, but the blindness of the age cannot be remedied with algorithms and artificial intelligence.

## The Backbone of Nationalism

With the midterm elections in November 2018, the Republicans suffered a striking defeat and lost their majority in the House of Representatives. Although populism, with Donald Trump as the head figure, stood its ground, voters had put their foot down against the chaotic leadership they had seen over the past two years. People would have more peace of mind in American politics by giving the Democrats the responsibility for checking and overseeing the president. A key principle in American politics and a cornerstone of American democracy, ‘checks and balances’, was restored. However, in the months before the presidential elections began in earnest in early 2020, no one dared to predict the electorate’s verdict or write off that the American variant of right-wing populism would carry Trump to a new victory.

If there was any doubt about populism’s status in Europe in the months leading up to the EU parliamentary elections, it was more difficult to deny that one of populism’s faithful companions and old scourges trundled on both sides of the Atlantic. What had seemed like an undercurrent started to burn brightly like unadorned nationalism. It became more and



more acceptable, and it was no longer uncommon to recognise it almost as a hallmark.

Nationalism forms a common thread through the right-wing populist parties in Western democracies. It is a gathering point and a means of mobilisation. Individual leaders avoid proclaiming nationalism as their ideological point of view and prefer paraphrasing and codes, such as when Viktor Orban declares that he and his party have been given a mandate to adopt a new constitution based on ‘a national and Christian basis’ (Orban 2018). Nationalism is easy to exploit when there is a political and ideological vacuum to be filled.

Nationalism provides backbone. It is a survival strategy based on a classic recipe that is put into use. It is us against them. It is our own against all the others by means of the prejudice of injustice and persecution of minorities, strangers, and those who are different.

Donald Trump embraced nationalism, because he instinctively understood what was in the air and how it could be exploited politically. He started by attacking the corrupt and power-hungry globalists: ‘A globalist is a person that wants the world to do well. Frankly, not caring about our country so much,’ he said. ‘And you know what, we can’t have that. You know, they have a word – it sort of became old fashioned. It’s called a nationalist. We’re not supposed to use that word. But do you know what I am? I’m a nationalist’ (CBSN 2018; Forgey 2018).

## System Critics

It has taken generations of liberal democracies to develop and consolidate the basic values on which Western societies are based: the triad of power, the rule of law, freedom of speech, freedom of mind, and respect for the individual. It is difficult for many to understand that the political situation in our part of the world has been able to take such a steep and dramatic turn away from the basic values.

There is still a debate among politicians, researchers, and the media about the interpretation of the concept of populism, and it remains a contentious issue (Baker 2019; Moffitt 2020). There are analysts and publicists both in Denmark and abroad who go to great lengths to

downplay and belittle populism research and deny that it has anything valuable to contribute. They ridicule the concept's importance and the systematic research of recognised academics in Europe and the USA (Kaltwasser et al. 2017; Norris and Inglehart 2019).

Populism's defenders prefer a positive interpretation of the term *populism*. For example, along with other analysts and commentators, the Danish journalist and a former candidate for the Danish Parliament for the Venstre party, Anna Libak, argues that it is misleading to talk about 'populist' politics or to see populists as a threat (Libak 2018). She prefers to see them as critics of the system, who have a necessary and important function in stirring up the established political system, in which professional politicians have dominated for too long with no real opposition. To them, populists are a corrective force for a limping liberal democracy. They see that populists activate overlooked voter groups and increase voter turnout. In their eyes, it is a positive win for democracy. For populist sympathisers, system change is the key word and best characterises the populist's goals and political behaviour. In their view, the populists are persecuted and wronged.

Populist sympathisers tend to justify the methods and rhetoric of populists by emphasizing that they focus on issues that the mainstream parties either don't see or don't want to see. The sympathisers pay less attention to what the populist parties actually have been able to achieve. Instead they prefer to point out that some of the mainstream parties, have adopted some of the populists' issues and methods. This is true in some cases, but it does not make these parties populist as some of the sympathisers claim. In the opinion of these defenders of populism, it is misleading to talk about populist parties and to portray them as a destructive political factor. They see them as the dissidents of our time and neglect to talk about how populists see liberal democracy as evil and the greatest threat to people.

While the apologists accuse others of committing wrongs against populist politicians, they are at best guilty of a form of selective reasoning that borders on manipulation. They welcome populists such as Matteo Salvini and see them as Europe's saviours who want to and can reform the EU (Libak 2018). They refuse to see that Salvini and the Salvinists go hand in hand with people such as Steve Bannon and Nigel Farage, who

are only interested in destroying the EU. Among the many new political and cultural trends of our times, the populist apologists appear in the same role as those who have come forward in Germany as apologists of Vladimir Putin and are called *Verstehers*. This is a group of people who step out of mainstream politics or media to defend forces that want to undermine or destabilize Western societies like Putin and the Kremlin want to or to upset the existing political order and system like the populists do. During the Cold War, communists in Western democracies played a similar role in defending Stalin's rule and downplaying the crimes committed by the Soviet system. In times of disruption in technology, commerce, communication, and so many other aspects of modern Western societies, populists and their sympathisers are out to disrupt the political order and stability in the West. They do not just want to rock the boat, but seem to be preparing the ground for a system with a different set of political and social values to replace liberal democracy as we have known it and lived with for most of the twentieth century.

Dutch-American scientist Cas Mudde's definition of populism is that the populists divide society into two groups with conflicting interests: the people and the elite, the just and righteous people against the corrupt elite, the good and the bad. The good suffer, the bad celebrate. The people are tormented by the plague and the elites are partying. Donald Trump said it clearly in his inaugural speech: 'For too long, a small group in our nation's capital has reaped the rewards of government while the people have borne the cost.'

What Cas Mudde has formulated more theoretically, Donald Trump has demonstrated in practice. In the past, Trump supported the Democratic party, but now he is a Republican. The ideological divide in the right wing or the left wing does not mean much to a populist like him, and as a 'system critic' he can, without blinking an eye, use lies and fake news to achieve his goals, while he thunders daily against the lying media. *The Washington Post* has documented that after 3 years in the White House, Trump has lent his name to over 18,000 lies and false statements in speeches, articles, and on Twitter (Mindock 2019). No conventional politician would have survived it, but it has no effect on a populist like Trump, who has redefined the rules of the political game. Or

rather, no rules apply to a politician of Trump's ilk. A rule-based order has been replaced by a Twitter-based order, where Trump has *carte blanche*.

The populist sympathiser's attempt to whitewash populism has, rather than clarifying, increased the conceptual confusion, but it has not however overshadowed the efforts of scientists and publicists in the field. They have provided sufficient documentation so that one can respond to the challenge of populism with reasonable insight and handle the subject both as the interested reader and as a professional.

In a comprehensive study over six months, the British newspaper *The Guardian* has mapped out the populist waves of the time. The newspaper has documented that populists have tripled their voters in Europe over the last 20 years and have been a part of governments in 11 European countries (Lewis et al. 2018). A Swedish study of authoritarian populism (Timbro 2019) supports this general trend as seen over the past few decades, but no populist party has yet been able to prove its staying power or its ability to rule and transform its ideas into viable politics. Gaining ground, increasing your voter base, and displaying an appetite for power is not a guarantee of a leader's ability to lead and rule in accordance with the rules of liberal democracy instead of succumbing to the temptation of authoritarianism masquerading as a new brand of democracy like it is happening in Hungary and Poland (Serhan 2020).

In 1998, populist parties accounted for 7% of the vote. Twenty years later, over a quarter of European voters vote populist, and with a clear majority for right-wing populists. The newspaper has built up a database that has processed 720 speeches by 140 government leaders in 40 countries from around the world over the last 20 years. The researchers document that freedom of the press, civil rights, the credibility of the elections, and the separation of powers suffer under populist rule (Lewis et al. 2019).<sup>7</sup>

Hawkins (2019) recommends defending the democratic institutions, but one must do so without waging war on the populists. His last and

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<sup>7</sup>These are 2018–2019 trends discussed earlier, e.g., the EU election, the Democrats' midterm victory in the USA, Caputova in Slovakia, the collapse of the populist coalition in Italy, and the defeat of the Danish populists in the national election in Denmark. It emerges, populism does not follow one consistent direction with one unbroken growth curve, but exists and evolves with the progress and the setbacks caused by its opportunistic nature. Progress and victory in one country does not exclude a downturn and defeat in another.

most important recommendation is to take populist frustrations seriously. Populists respond to wrongdoing with a ‘paranoid mentality’, but often there is talk of real concerns that are rooted in democratic values and based on concepts of equality and fairness. If people experience that there is someone who benefits from political decisions at the expense of others, then the losers will feel that the democratic rules have broken down (Hawkins 2019).

## Downfall

Cas Mudde, who became one of *The Guardian’s* regular columnists in 2018, has noted that when talking about populism, it is primarily about the populist radical right. Left-wing populism has withered away, transformed itself, and become less leftist or less populist. It is the right-wing populism that dominates the picture and occupies the mind.

One of Mudde’s other observations is that in the beginning of the twentieth century, both nationalism and socialism emerged as examples of anti-democratic extremism. At the beginning of the twenty-first century, populists are mainly democratic, but anti-liberal according to Mudde. He takes this as an indication that democracy with popular rule based on majority principles has become the dominant form. It is not the case for liberal democracy, which emphasises minority rights, the rule of law, and the separation of powers (Mudde 2018).

Mudde writes that liberal democracies are not dismantled or abolished from one day to the next. It occurs gradually as leaders like Viktor Orban use their political chisel to chip out one notch after the other from the democratic system. Orban and his companions point out that this is also the case in the old Western democracies, and that they are just following their example. It happens out in the open, and, according to Mudde, it seems just like when Hitler in his day came to power and killed off German democracy after openly talking about his attitudes and ambitions in *Mein Kampf*.

The interesting thing in our time is that it no longer appears to come across as scary or repulsive to reveal one’s attraction to an openly nationalist and authoritarian regime. It has become an acceptable alternative

that politicians, activists, and voters can recognize and identify with without shame or stigma. It appeals to certain groups of people who allow themselves to be gripped by the rhetoric and have no hesitation with being identified with it. It assumes that, like Orban or Trump, you feel that you have the ability to take the people along with you and do not hesitate to use it in a combination of personality, time, and economic and social conditions. It is in this particular chemical mixture that the seed for the future's smouldering confrontations and settlements lies. There can never be any talk of coexistence between the nationalist, authoritarian regime that Trump, Salvini, Orban, and Le Pen dream of and the Western liberal democracies that flourished in the twentieth century and which are now so challenged that it could appear to be a battle of life and death.

All the populist leaders say that they only act and think in the name of the people. 'The people' are history's and our culture's most abused word, which have been used by dictators, communists, Nazis, and rulers of every shape and size to commit mankind's worst crimes against humanity, to legitimise unforgivable atrocities that will stand as a stain on history. The populists feel that they have a special mission and the right to speak and act in the name of the people, as if they have been given a mandate by the people. If we are to take a lesson from history, then it would be that leaders who feel chosen by the people and higher powers to a very special role will not hesitate to make decisions that will trigger unthinkable bloodshed and catastrophes in the name of the people.

In September 2019, as the Democrats in the US Congress started preparing to put President Trump before a court of impeachment, he conjured up an image of an apocalyptic meltdown. Since his inauguration as president, he had repeatedly shown that he did not want to abide by democracy's rules and norms or to respect the established system. Now he does not hesitate to declare that impeachment would be a lynching and a coup that would deprive the people of their power, their voices, their freedom, and their civil rights. He quoted a priest who had declared that impeachment would trigger a civil war that the country would never recover from. The subtitle was that the choice for Americans was between Trump or civil war. Few Americans had imagined that they would hear that at the beginning of the twenty-first century. It did not even take three years to get to that point: Downfall in the name of the people.

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# 6

## Modern Border Security

Rt Hon Bruce George, OBE

### Editors' Introduction

This address by Rt Hon Bruce George OBE (1942–2020) was given to an international conference on ‘Integrated Border Management’ in the Republic of Moldova in 2007. Since then the issue of ‘border control’ has become a central feature of global populist rhetoric driven principally by what is portrayed as the threat of uncontrolled and large-scale migration. This was a key factor in the UK vote to Leave the EU in 2016. It has fuelled the success of right-wing parties in Europe, certainly contributed to Donald Trump’s victory in the USA with his references to the Wall and can most recently be seen in new immigration and citizenship legislation in India. For these reasons, we thought that it would be appropriate to include an edited version of the address because Bruce George identifies other factors relating to border security and because the public discourse has for the most part drowned out rational discussion of migration. Although none of the other authors in this book tackles the subject, it is

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our view that it represents another critical issue with which tomorrow's graduates will need to engage in objective, evidenced-based discourse.

## Setting the Scene

In 1907, Lord Curzon observed: “frontiers are indeed the razor’s edge on which hang suspended the modern issues of war and peace” (Curzon 1907, *Frontiers in History*); 100 years on it seems that Curzon’s words are no less apt. Boundaries and the borders which run along them have long been the leading source of dispute in our world. It has been estimated that historically 70% of the world’s conflicts owe their origins to borders and when one looks around there are no shortage of contemporary examples be it on the Indian subcontinent and the dispute over Kashmir or the South Caucasus and the dispute over Nagorno-Karabakh. In the Middle East, there is the question of Palestine while in South East Asia the disputed territorial status of Taiwan continually threatens to spark devastating conflict. Indeed, it can quite plausibly be argued that the current turmoil in Iraq can, at least in part, be traced back to French and British border policies in the region in the wake of the First World War.

In the era of instant global telecommunications and climate change the argument could be put that borders are a historical phenomenon of waning relevance in a modern interdependent world. In fact, in these complicated times marked by trends as diverse as economic globalisation and the fear of terrorism, the competent handling of borders has become a crucial political issue throughout the world. The challenge for modern economy-based states is to facilitate as easily as possible the international trade on which their wealth is dependent while at the same time protecting their citizens from the crime and terror which accompany modern permeable borders.

Despite the examples cited above, globalisation, economic interdependence and the concerted determination of the international community mean that conventional wars between states have greatly diminished in their frequency. In most developed parts of the world, conflicts between neighbouring states have become unthinkable. This has entailed a shift in emphasis on those states’ borders and a changed conception of what

achieving border security entails. The shift has been one from historic militaristic approaches to border security, concerned with deterring invasion and maintaining the territorial integrity of the state, to that of a policing approach fostering domestic wealth through trade and travel while simultaneously attempting to prevent the criminal abuses to which modern, open, flexible borders are vulnerable. In the context of the modern world, this is a massive undertaking. The idea of defending borders, which stand as lines in the sand, is now an ancient one. Defending modern borders means attention to land, sea and air and entails huge complexity.<sup>1</sup>

As an example of the scale of the task: the US must secure nearly 7500 miles of land border with Canada and Mexico, across which more than 500 million people, 130 million motor vehicles and 2.5 million rail cars pass every year. It must also patrol almost 95,000 miles of shoreline and navigable waters and 361 ports that see 8000 foreign flag vessels, 9 million containers of cargo and nearly 200 million cruise and ferry passengers every year. It has some 422 primary airports and another 124 commercial service airports that see 30,000 flights and 1.8 million passengers every day. There are approximately 110,000 miles of highway and 220,000 miles of rail track that cut across the country, and 590,000 bridges dotting America's biggest cities and smallest towns (Loy 2004).

While most countries in the world have a much smaller infrastructure to protect few will be able to dedicate the resources which the US does. As such, the task for them is proportionately just as great if not greater. Given the size and complexity of such operations there will inevitably be opportunities for criminals to exploit. Modern transnational criminals operate with a level of sophistication at times approaching that of a legitimate multinational plc. Based on complex and innovative networks which have evolved in the shadows of globalisation, criminals are quick to exploit existing international channels and infrastructures where they exist but equally quick to develop new ones where they do not.

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<sup>1</sup> Editors' note 1: This address was written before the election of Donald Trump in the US, the 2016 referendum in the UK and the surge of refugees which in many countries has generated a sharp new focus on frontiers and controls on migrants as much as or indeed more than the deterrence of criminals except in so far as they are exploiting migrants.

Illegal arms trafficking, about which the Moldovan government has voiced much concern, presents a frighteningly clear illustration. Small arms trafficking in the twenty-first century is nothing if not a global operation. In 2002, traffickers acquired 5000 AK-47s from Yugoslavian army stocks and moved them from Serbia to Liberia under the guise of a legal transaction with Nigeria. One of the planes used in this shipment came from Ukraine and made a refuelling stop in Libya while en route (Stohl 2004). Thousands of trans-state illegal transactions such as this take place every year combining to make the trade in illegal arms worth an estimated \$1 billion annually. The importance of effective, secure borders to combat such activity is emphasised when one notes that some 500,000 people are killed each year by illegally traded small arms which fuel regional instability and impede development efforts.

Immigration presents another pressing challenge for borders. The appearance of uncontrolled immigration has plagued successive governments across Europe and beyond, generating questions about their competence. The political impetus for improved border controls has been driven by government's desire to redress; this is seen in control of immigration. Aside from loss of face for governments, illegal immigration threatens serious practical consequences.<sup>2</sup>

In economic terms, an influx of illegal workers prevents accurate calculation of the size of a country's workforce, impeding the effective management of the economy. The existence of an informal economy which accompanies illegal immigrants entails the loss of tax revenue but also impacts negatively upon those providing legitimate labour. As well as the misery involved for illegal immigrants who are smuggled or trafficked to a host country, where they will often face dangerous or degrading employment, illegal immigration threatens serious social consequences as large communities congregate in cities and towns in an uncontrolled fashion and regardless of the local infrastructure's ability to accommodate them. As a result, the EU now regards the potential consequences of the sustained rise in illegal immigration and people smuggling as one of the most serious problems facing Europe (Europol 2006).<sup>3</sup>

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<sup>2</sup> See Editors' note 1.

<sup>3</sup> See Editors' note 1.

Clearly, the rise of international terrorism has played a significant role in focusing minds on the importance of border security. Crucially, modern concepts of border security do not see it as a zero-sum game. Good border management is the art of balancing the competing goals of intercepting 'bad' people and 'bad' things before they cross borders without unduly hindering the legitimate access of goods and people. Huge disruption and the economic fallout caused by inefficient terrorist-prompted border practices are essentially a *de facto* victory for the terrorists seeking to cause chaos and inflict economic pain.

Arms trafficking, illegal immigration and terrorism are just three of any number of threats which modern borders are charged with defending states against. The range of threats against states borders, the seriousness of the threats and the need for cooperation in combating them are reflected in the number of international and regional organisations which dedicate effort and resources to the subject. The UN's Security Council has made public its determination that states should cooperate on border control aiming to prevent "terrorists from exploiting sophisticated technology, communications, and resources to incite support for criminal acts" (UN Security Council 2005).

The concept of border security has evolved and the challenges it faces are now more diverse and complex than ever. Arguably, the aggregate importance of borders has never been greater as global trade and the wealth of the world depend of their effective operation. Borders, and border security, remain fundamental to international relations. The quality of a state's border management is the concern not just of the state, or neighbouring states, but of the whole international community as the illicit movement of goods and individuals threatens to have destabilising effects which spread far and wide.

With this in mind this work on border management is a timely one. It is the intention of this chapter to offer an insight on the problems faced by states in controlling their borders and the solutions they have generated, thus facilitating discussion on the future of Moldova's borders and border management programmes. Having examined the contemporary significance of borders around the world and the array of threats they face it is my intention to move forward now by discussing the broad evolution

of border management in the EU before offering a short case study of the border management regime in the UK.

## The EU and Schengen: Now and into the Future

The relative academic neglect which the issues of ‘border management’ and ‘border security’ have suffered means that even these fundamental terms are surrounded by a degree of imprecision with the scope of that which they encompass varying from region to region. In the European context border management is concerned with the administration of borders and is a function concerned primarily with legislative and bureaucratic activities.

The Schengen Agreement (1985) is the central pillar of the EU’s borders regime and is an inter-governmental effort to manifest the principle of free movement of people and goods throughout the EU. The main tenet of the agreement was the creation of a common EU territory with a common external border and free from traditional internal borders. Aside from instances where special security concerns existed it was intended, and is the case, that once a person accessed the EU across its external border, they would have free movement across its entire territory regardless of national territories. The idea of a single external border has proven a controversial one for some EU countries with Britain and Ireland opting out of the agreement. While the strategy further facilitates the internal trade so crucial to a successful single market, it places great emphasis on states responsible for the external border, as Charles Clarke, then British Home Secretary, stated: “You couldn’t imagine going to a Schengen type approach unless you have confidence in the security of [the EU’s external] borders, and we’re a very long way from that” (Gubb 2007).

EU influence of individual states’ management of the external border has proven a delicate issue. France, Germany, Italy, Spain and the UK have been happy to share the financial burden of the external border but have sought influence in its management. Border states are obliged to



bear in mind the implications and security considerations of all Schengen states in their policing of the border but the Eastern states have resisted operational input from the EU and balk at the idea of a European Border Force as has been suggested by some.

The level of trust required among the participating Schengen states is also apparent in their contributions to the Secure Information System (SIS). SIS is the secure governmental database system used by several European countries for the purpose of maintaining and distributing information related to border security and law enforcement. The data collected concern certain classes of persons and property. This information is shared among the participating countries of the Schengen Agreement Application Convention (SAAC). In addition to the fact that the original system was designed only for a maximum of 18 member states the EU Commission has expressed the need to develop a second-generation SIS in order to better combat the growing threat of terrorism and much more sophisticated forms of transnational crime. While the UK uses the SIS for its work in combating criminal activity, its decision to opt out of Schengen means it does not make use of the migration data contained within the SIS. However, the concept of a central database, as we shall see below, is one which the UK has been increasingly keen to pursue on a domestic basis.<sup>4</sup>

## The UK Experience<sup>5</sup>

The end of the cold war and the absence of any real threat of inter-state conflict involving EU countries mean that the widely accepted role of border security is to protect the state against infiltration, not from hostile armies, but from illegal traffickers and increasingly from terrorists. Thus, border security in Britain, as in the rest of the EU, is an activity which owes more to the principles of policing than those of the military.

The importance of safe and secure borders to the UK government has been re-iterated repeatedly through both words and actions. While the

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<sup>4</sup> Editors' note 2: Written before the UK decision to leave the EU.

<sup>5</sup> Editors' note 3: Pre 2016 referendum.

majority of EU countries have been prepared to cede some control over their borders in entering the Schengen Agreement the UK has shied away from integrated border management and the notion of trusting those on the periphery of the continent with access and egress. Rather, the UK has chosen, within the confines of the free movement of people and goods dictated by membership of the EU, to maintain its borders in parallel with the efforts of those in 'Schengenland' with the need for robust borders being an ongoing theme in discussions on national security.

More affordable and accessible travel has resulted in a marked rise in the number of international passengers crossing the UK's borders, and significant further growth is widely predicted. The Department for Transport predicts that, should current trends continue, by 2030 up to 600 million passengers will pass through UK airports each year.

As noted above, since the collapse of the Soviet Empire, the threat to UK borders from conventional military attack has remained a remote one. While the proliferation of missile technology may cause the UK to reassess this threat in the future for now it is threats at the sub-state level which pose the vast majority of the challenges to the UK's borders. Human trafficking, money laundering, smuggling of arms and other contraband and exercise fraud are all well-documented examples of crime exploiting the fragility of a state's borders. The Serious Organised Crime Agency (SOCA) was established partly in response to the growth of organised transnational criminal gangs attracted to the UK. SOCA has estimated that the costs of serious organised crime to the UK approach 20 billion a year.

The problems posed to the UK's border security by the sheer scale of movement across the borders and growing sophistication of criminal activity are compounded by the re-emergence of a serious terrorist threat.<sup>6</sup> In addition to criminality and terrorism, immigration—illegal immigration in particular—has been a key factor in the continued political interest which borders attract. Being an island state has apparently offered the UK little protection from illegal immigration, which, left unchecked, threatens to have huge social and economic repercussions. The government

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<sup>6</sup>Editors' note 4: It is probably the case that primacy in UK political rhetoric is now (2020) on the control of migration.

has been embarrassed repeatedly through its inability to even estimate how many illegal migrants have come to the UK in recent years. While the UK has not witnessed the resurgence of the extreme political right of some European countries, moderates from across the political spectrum have warned of the boost which the appearance of uncontrolled migration gives to extremist factions such as the British National Party. In practical terms, it has been suggested that the absence of exact population figures, particularly in urban centres which attract illegal migrants, has affected the provision of public services and made it difficult to match infrastructure planning to the needs of local communities.<sup>7</sup>

## Existing Provision of UK Border Security

Historically, responsibility for the security of the UK's border has been shared between the Immigration Service, HM Revenue and Customs, specialist port police forces, territorial police force and the intelligence organisations. The Immigration Service is a civilian body, which is a constituent of the Home Office's Immigration and Nationality Directorate. Fiscal criminality, drug smuggling and the trade of other illicit goods through the UK's borders falls under the remit of HM Revenue and Customs.

The UK's resistance to the move towards a single unified border guard similar to that in France, Germany and Holland has been justified on the basis of the diversity of issues which impact upon border security. Nevertheless, even before the creation of SOCA, the policy of dividing the protection of the UK's borders between so many agencies has been the source of criticism.

The lack of access to other agencies databases, failure to fully share intelligence and the duplication of resources have been cited as weaknesses of the UK's plural agency approach. However, the government countered with claims that a single border-focused agency was liable to lose links with inland security services and would entail unacceptable

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<sup>7</sup> Editors' note 5: The rise and importance of UK Independence Party (UKIP) has been much more significant in changing UK focus than the BNP.

disruption to border operations through a transition period. In its reply to the 2001 Committee report, the government stated that the unclear cost/benefit implications of a single border forced meant that it “remained unconvinced”.<sup>8</sup>

## E-Borders

Joint Border Operations Centre (JBOC) has been initiated as part of ‘Project Semaphore’, the trial project for the UK’s e-borders programme. While the efforts to improve the cooperation between agencies with a stake in border security represent an operational response to the emerging challenges facing the UK’s borders the e-borders programme very much represents a strategic shift in focus. Led by the Home Office’s Immigration and Nationality Directorate (IND) the e-borders project represents collaboration between the UK Immigration Service, HM Revenue and Customs, UK Visas and the Police Service. The UK government cites the provision of a coordinated and integrated approach to border security, the provision of improved intelligence and an increased efficiency of border processes as the objectives of the project.

E-borders and the Border Management Programme in the UK represent efforts, mirrored by most other advanced border control regimes, to more efficiently gather and risk assess border control data. This entails, for example, presenting industry with a single window through which it can provide its commercial information responding to the duplication of work historically involved in corresponding with a number of separate agencies. This has the dual advantage of saving industry time and resource as well as making use of modern technology to streamline the government’s gathering and sifting of information.

It is proposed that the UK’s theoretically acquired ability to handle data much more efficiently will facilitate it examining much larger quantities of data. In terms of the travel industry, it is proposed that travel firms will supply data on all passengers intending to travel to or from the

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<sup>8</sup>Editors’ note 6: In 2012, a Partnership Agreement between the Her Majesty’s Revenue and Customs (HMRC), Home Office and Border Force was published.

UK, allowing the risks to be assessed ahead of time and alerts to be sent to the relevant border authority. With traditional technology and data handling techniques such a massive and potentially rewarding undertaking would have been unthinkable.

The effect of e-borders on immigration has also been a cause of concern. The government has been keen to emphasise the enhanced capacity which e-borders would give them for tracking immigration and ensuring that individuals do not enter without permission or do not overstay. However, the need to distinguish between different flows of migration and the difficulty of doing so with such a blunt instrument as the e-borders programme has also been highlighted. In the case of what has been termed 'desirable migration' experts have expressed concern that excessive numbers of legitimate migrants to the UK have been prevented from travelling. The stiff potential fines for carriers carrying unauthorised migrants to the UK have seen some react overcautiously, refusing to accept some legitimate individuals and resulting in their arbitrary exclusion from the UK. For universities this problem has obstructed the taking up of places by foreign students who provide an essential source of funding.

In terms of what we may describe as 'dutiful migration', vulnerable migrants which the UK is duty bound to accept under international law, Oxfam and the Refugee Council have expressed their concerns that it has become practically very difficult for asylum seekers to arrive in the UK in a legal, regular fashion. The trend for 'exporting borders' and preventing individuals' access to the UK before they reach its shores does not comfortably accommodate those seeking asylum. The unsuitability of extra-territorial controls in identifying those with protection needs means they are often denied their right to asylum arbitrarily or forced to transit to the UK irregularly by means of smuggling gangs.

## Conclusion

What this opening piece has hopefully emphasised is the continued, and perhaps heightened, importance of borders and border security in the modern era in light of the transnational threats which states face.

Strategically, most countries in the EU have preferred to tackle these challenges in a communal fashion through Schengen while the UK has preferred strict self-reliance. Operationally, the UK has sought to share the responsibility for borders, reflecting the range of challenges which they face. Many other states have preferred to work with a single united border guard making use of cohesion, which such a policy offers.

These approaches will hopefully serve as something of a framework from which other speakers can proceed in dealing with Moldova's particular border security challenges stemming not least from Transnistria. While that region remains bogus without international recognition and for as long as it is propped up by Russia, one hopes that this conference on border security can help to generate a speedy resolution to the problem.

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# Part III

## Problem Based Learning as a Mitigating Response



# 7

## Management, Philosophy and Consciousness in the Shaping of Problem-Based Learning

Michael Fast and Woodrow W. Clark II

### Introduction

This chapter builds upon empirical material and our experiences in universities for more than 35 years, mainly in business economics, from Aalborg University and universities in the USA. The content arises from analyses of those experiences and reflections on what education has become, what the problems are and what it should and could be. We have been teaching, supervising, building programmes, members of study boards, programme coordinators and administrators of programmes. Our experiences are from the everyday of life in those programmes and

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from being a part of the political, strategic discussions of teaching and universities programmes. It is all about politics and engagement.

Since the mid/late 1980s, there has been, from a political view, a desire to have more control over the universities. This stems from the cost of public universities, to ensure that they become more focused on economic growth, production and innovation. This has had an influence on programmes, content, which programmes, the number of students and assessment. This has created a contradiction between the political management of universities and the idea of what universities should or could be in relation to engagement, quality of education and self-development of the students. These challenges and contradictions are discussed and we make a case for theory and philosophy of science as a mitigating response to such incongruences.

## **Contradictions in the Discourse of Management of Education**

In the discourse of management of education, there has been a focus on thinking of programmes as the education of professionals, for example, a focus on the functions and the roles that the candidates need to step into after graduation. This discourse gets its fuel from political parties, industries, the management of the universities and members in departments that can see the personal benefits or actually believe in it. One of the indicators and the one that is this discourse's main argument is the number of unemployed candidates and the trend for the last five years. The evidence is oriented towards yesterday and less to the future, or how to develop competencies and problem-solving in complex contexts. This way of thinking is both conservative and quantitative, with its orientation towards what is known, and not what is. It is a political ideology, where the metaphor of society is the machine (Morgan 1986), and the mechanisms applied in the universities are goalsetting, control and evaluation.

This ontology is not new, and was strongly supported by the ideology of New Public Management, started in mid 1980s. This discourse was

enforced by the new university law in 2003 in Denmark, designed to move the governance of universities from democratic processes, where leaders at all levels were elected by the members of faculties, to a classical industrial model of management with hired managers. The statement was that “the universities needed to become more professional”, for example, the goalsetting, control and governance idea. The consequences of this over the years meant a separation between the management and the central administration, and, on the other side, education and research—the core of what universities actually should be about. This separation effectively divorced the management and the central administration from the everyday life of education and research, with management by politics, rules and overlapping chains of command. It meant that the orientation shifted, from leaders and support groups, to the political level and the discussions in that arena. In the early years it was not really a problem, where most applied for their own positions and stayed in their positions. The thinking at the management level has changed dramatically in the last eight to ten years. As some people on the “floor” expressed: “It is not our university any more”. The organizational discourse went from an idea of the university as a knowledge development community, where the focus was on studying, discussions, debating, disagreements, and where argument, logic and critique were the most important, towards a production factory (see also Waring 1991, p. 203).

From political sides, both right and some left, the idea was that “society” needed more control over the universities, to make sure that the universities supported growth in the “right” way. The management approach to universities, combined with a growth in the political administrative control systems, has changed the basic idea and spirit of what a university is.

The whole idea of what universities should be and especially what education and the ambitions at a PBL (problem-based learning) university are is undermined. As someone at the top management level of one Danish university expressed: “The Humboldt University is dead and will never come back” but few in the universities or in politics actually know what the idea and principles of the Humboldt University are. The idea of

a free independent university is dead, but it is actually the essence of education and problem-based learning.

The governance of the universities mirrors the idea of New Public Management in which the basis is the exercise of power. The hierarchy, chain of command, the measuring of performance are the focus and what counts. Control and evaluation are daily activities, and closely linked to the budgets of universities. The contradiction, which is classical in the debate in social science, between a nomothetic quantitative perspective and an idiographic qualitative perspective (Clark and Fast 2008, 2019; Fast and Clark 2012; Fast et al. 2014) is in full blossom in universities and political discussion, although it is not a conscious one. It is not only a political and management discourse; it has become a power and position game, and a matter of survival or career advancement. The idea in New Public Management is to treat universities as a part of the “market”, and establish an arena of competition not only between universities but also between departments, research groups and people. The ideology is that this ensures that “the best” win, and that “we” get “more for the money”. Openness, sharing, helping are the victims on the altar of competition. Cooperation is judged based on worth, the objectives being position and capital (e.g. Bourdieu 1993). It is a part of the old debate in science between an objectivist ontology and a subjectivist ontology, linked to the discussion of epistemology, the theory of cognition and how to understand learning. This is about the contradiction between management power and a democratic discourse and student’s self-development and engagement.

The student as a human has no place in this system. Students become a number in the great puzzle of budget and finance. The idea is that a student is a product or the basis for producing an employable product. The classical ideal, which is needed in the world today, is the engagement and the development of the self—the *bildung*, (German), *dannelsen* (Danish). The old Greek tradition of development of the self and wisdom—Phrônesis—seems to have no place at the “modern” university.

The recent development of universities can only be described as a contradiction between the political and administrative management organization of universities, and the ideal of what education is, as Vignette 7.1 exemplifies. The problem is not only the force of this ideology and the

construction of a power game, but that it stifles active discussion of quality, recognition that time matters, innovation, creativity, critical thinking, sustainability, the environment, refugees and immigrants, inequality, women's rights. It should be acknowledged that political parties and university management recognize some of this, but respond with rhetoric and solutions from the past century and do not seek to embed discussion and potential solutions in the fabric of the education and research of the institution. Nothing actually changes, and the tradition (Gadamer 1992) of education and research field still rules.

### **Vignette 7.1: Challenges in Introducing Philosophy of Science**

In 2003, the Danish minister of education Margrethe Vestager together with the universities decided that Philosophy of Science (both general and specific for the field) should have 7.5 European Credit Transfer System (ECTS) in the bachelor programmes, and this had to be implemented in 2004. The rationale is that it is important for the students to understand the science of the field, the theories, the methods and to be critical and innovative. Some programmes developed Philosophy of Science into major courses, but in most programmes in business economics, it did not happen. Today, 16 years after that decision, it is still a problem at Aalborg University as it has not been implemented, mainly because academic staff in business economics do not see the relevance. It is not a part of the tradition, and it has become a part of the power and positioning game. So even if there was a political idea of creating legislation to ensure the quality of a discussion and of a foundation of learning and working for students, the result was poor implementation. The tradition of mainstream in programmes worked against the idea, and people resisted. The idea that students should explicitly learn about arguments, logic, different traditions, epistemology and ontology was of no interest. Therefore, the tradition of the field was a contradiction of the spirit of science and philosophy; for example, it was all about power and not the search of wisdom.

This management discourse has been going on for the last decade. It is, without doubt, a system of regulation of behaviour and people are changing. Some older scholars remember how it used to be a democratic academic debate and the election of leaders. The younger ones only have experience of the new model. Just as the industrial era created a need for specialization (almost in line with what Durkheim [1965] talked about

in the nineteenth century), this is now the discourse in universities. The production of publications and the measuring system force people to specialize to become more effective and produce more—the number not the quality is measured—as Vignette 7.2 illustrates: universities have become production factories.

### **Vignette 7.2: Standardization: Universities as Production Factories**

In Denmark, 15–20 years ago, after a discussion of formal and explicit learning goals for programmes, semesters and courses, the system of accreditation started. At first, we thought that this was a great idea to discuss the quality, progression and problems with programmes. However, it proved simply to be a template, for administrative procedures, control and standardization. It is a classic example of standardization, and a tool to control universities. Accreditation insists on standards, relevance, knowledge and level. The consequences are that universities are reflecting the standards on the surface, but neglect the discussion and development of quality in the content of the curriculum, global problems and the student's self-development. This discussion is linked to the discussion above of philosophy of science. The logic is the same: the establishment of structures and principles from the perspective of this ideology, and without any investigation of the connections of this to a learning reality, or an investigation of its own statement and if its premises actually exist. It is not a focus upon learning from different perspectives of the students, or a creation of different perspectives on what students are.

The governance discourse influences the education of students and their teachers, as it is in its essence pure regulation of behaviour. It encourages a conformist approach to behaviour in order for people to survive, gain promotion and receive research funding. The discourse is on becoming politically correct rather than educationally challenging. It becomes a way of thinking and acting. Cost effectiveness and value for money induce lowering of budgets with the consequence of larger lectures, more e-learning, shorter time for exams, fewer hours in supervision, higher teaching load and consequently less time for preparation. For most teachers it is a question of survival. The students focus more on grades and less on learning and few recognize the importance of self-development. The lack of quality feedback and quality on projects and assignments has been

a problem for years. However, it costs time and resources, and is no longer part of education thinking.

The contradictions between short-term thinking and long-run problems need to be addressed. Are students in traditional mainstream to be presented with content based on yesterday's theories, or through problem-based learning and project work, should they learn to develop their thinking and independence? There is a need to develop strategies and ideas to create quality standards and results for programmes addressing global problems and for engaging students in ways that enhance their problem-solving capacity.

There can be contradictions that arise (more) when we look at students and the PBL. The original idea of PBL was that the students in groups should formulate a wondering and an argument about a problem, in relation to both what they could see as a problem and its context, and as a relevant problem for someone and for them. The essence of PBL is that it is a didactic perspective that is in contradiction with traditional classroom learning. It can involve many things, different contexts, practical problems, meta-problems, theoretical problems. However, the essence is the learning process; the students develop their knowledge of the problem by a process of cognition and development of the self. It is not using a template and filling it out. It is the development of a framework to understand the problem. Central in this perspective is the engagement of all parties on quality, learning and cognition. It must come from the students, and their curiosity about the problem and context, in a group or by themselves. The engagement demands freedom to follow ideas, using experiences, literature in a broad sense, and constructing the frame.

## **A Philosophical and Scientific Perspective in Education: Development of the Self**

To mitigate the above contradictions, we conjecture that there is a need for thinking about problems with a complexity and across fields and people. There is a close link between problems and the thinking of and about the problems. Problems always rise from a position and with a

perspective. To handle and get into problems we need a conscious discussion of the ontology of the problem, and how to understand it. Therefore, there is a need to reflect upon how we create knowledge of the problem. To understand the problem is not a question of theory and method—for example, we cannot rely on a deductive perspective or an inductive perspective in understanding and develop knowledge. It is an epistemology that must take its departure both in the object of thoughts and in the act of thinking. It is about how to create an understanding of what the problem is, in all of its complexity. When we are talking about the PBL, we need to think in a perspective that is dialectical, and understand that the foundation for this is in philosophy and philosophy of science.

The official version of PBL at Aalborg University is “a problem can be theoretical, practical, social, technical, symbolic-cultural and/or scientific and grows out of students’ wondering within different disciplines and professional environments. The problem is the starting point directing the students’ learning process and situates the learning in a context. A chosen problem has to be exemplary. The problem may involve an interdisciplinary approach in both the analysis and solving phases”. “A project is a complex effort that necessitates an analysis of the target (problem analysis) and that must be planned and managed, because of desired changes that are to be carried out in people’s surroundings, organization, knowledge, and attitude to life; it involves a new, complex task or problem; it extends beyond traditional organizations and knowledge; it must be completed at a point in time determined in advance. Projects are necessarily diverse with regard to scope and specific definition. No one specific template or standard exists to define ‘sufficiency’ but rather these determinations are made within each programme” (Barge 2010, p. 7).

For us, PBL is much more than these definitions and the ideal is to see PBL as a didactic perspective that is oriented towards the field and self-development. Thinking of it as a project is important, because the project is a learning activity over time—over a semester. In the project the problem formulation, as a start of investigation, tries to govern and develop the project. The departure point is in personal interests, and is a part of the development of a personal profile, and education. The problem needs to be complex, with depth and focus on contradictions. PBL is about creativity in thinking and discussion of problems that do not exist in

isolation, so the reflection on how to understand the problem and how to think of it is essential. It is about independence in thinking; it is not applying theories without arguments from the investigation and reflections on the problem. It is an analysis where the knowledge process, as a learning process, is in focus. Because it is about knowledge and development of the self, the epistemological perspective and reflections will be fundamental. Understanding of one's own cognition and philosophy of cognition is fundamental. PBL is thereby about a consciousness of philosophy of science and methodology. When we talk about the complexity in any problem, the need for a cross-scientific orientation is obvious. Both to develop the project and for the investigation, self-development and self-critique will be a part of the process. How to understand the problem, how to understand one's own thinking, how to use theories, materials, data in the process are a matter of reflection and conscious analysis. PBL is about learning to learn. The essence is not theories, model or methods in the field. It is to understand and create knowledge about how to get into a field and into a problem, and create knowledge. It is what we talked about in the beginning, self-development, building or *Phrônesis*—to become wiser. *Phrônesis* is to be a conscious and ethical human being that can act upon and in the world.

A last part of PBL, which is important, is learning about cooperation with others. Group work as a learning process with others is central. It needs to be learned and requires development, self-awareness and awareness of the other. It is a moral obligation that is the foundation for any cooperation, and that you actually see the other and engage with the other. It is the perspective of the community and solidarity rather than the management and the “market” perspectives. Part of this, and the process of cognition, is to develop a consciousness of language and communication as Wittgenstein states (1921, 1993 p. 128): “The border of My language is the border of My World”. PBL and all education are about learning language to understand the field, problems and one's self. The quality of my thinking is in my language, and therefore the quality of my understanding of problems, fields and situations is only as good as my language. This is what science is about and therefore also what education and self-development is.



To summarize, when we are talking about learning and PBL we are talking about language and the development of our language. The process of understanding any problem is to develop this in relation to the context. In doing this we develop the self and knowledge of the problem and context. This is a part of what makes science important—the knowledge, the language and the understanding of what science is.

## Students, Science and Philosophy of Science

Science is to be curious and open. It is to think about the world, and in doing so reflect on yourself. Science must be open and critical. It must be open towards alternatives to the foundations of mainstream business economics and social science in the understanding of any problem and any field. It must be critical, and must reflect and be involved in the problem from a multi-disciplinary perspective. It must reflect upon ontological and epistemological thoughts, methodological attitudes and implications as well as consequences and connections between them. The focus is especially on the understanding of the basic discussions and thinking in the tradition, what has been and is being thought of reality, science, the human being and creation of knowledge. This is the discussion and the orientation towards science that students must be conscious about and reflect upon, to develop their self in the field they are studying.

Husserl's conviction was that none of the so-called rigorous sciences, which use mathematical language, could lead towards an understanding of our experiences of the world: A world the existence of which they uncritically presupposed, and which they pretend to measure by yardsticks and pointers on the scale of their instruments. All empirical sciences refer to the world as pre-given; but they and their instruments are themselves elements of this world (see Schutz 1973, p. 100). Husserl's philosophy is based on the world that we daily live in, experience, talk about and take for granted in all our activities (Bengtsson 1993, p. 43). However, at the same time this everyday of life approach to the world is *naive*, as in the natural attitude we are ignorant of the possible conditions for our existence. In the daily experiences, man takes naturally, naively the whole reality for granted, as a substance existing in itself, and is

unconscious of himself and thus also of the role that he plays in the experience. Husserl therefore thought that the task of transcendental phenomenology, in a philosophic reflecting attitude, was to investigate the possibility conditions of natural existence. This is what we talk about in relation to see the students become students but also to develop their self.

The complexity in this is that the Lifeworld is a condition of all empirical theories and of all scientific activity. It is from the Lifeworld that science gets its experience material; it is to the extreme of this world that the theories must be related, and it is in this same world that science is carried on. The Lifeworld is thus not only prereflexive, but also prescientific; it goes on and is assumed by both philosophy and science. Science thus depends on the Lifeworld, but it is not identical with it. Science consists of attempts, with theories, to define reality systematically. Thus, it consists necessarily of an idealization of the specifically lived reality it loses in the concretization but wins at a higher intellectual level. But the purpose of science must be maintained: to understand reality, not to control it.

Science can help the acting human being to become conscious of the fact that all actions—also the actions not performed—have consequences that imply an attitude to certain values. This normally implies that an attitude towards other values is taken. To make the choice is the sole matter of the actor (Weber 1977, p. 99). An empirical science has no ability to teach someone what he should, only do what he can and—in some cases—what he wants.

Schultz's view on science and social reality is that the objects of thought in the field, which are structured by the scientist, refer to and are founded on the objects of thought structured through the commonsense thinking of man living his everyday life. The structures used by the scientist are thus structures of the second degree, that is, structures of the structures that have been made by the actors at the social stage whose acting he observes and tries to understand according to the procedural rules of his science. The aim of social science must be to try to understand social reality—everyday life, Lifeworld. Social reality is the sum of objects and occurrences within the social cultural world as experienced by the “commonsense” thinking of men living their daily lives among their fellow men, connected with them in manifold relations of interaction (Schutz 1970, p. 5). This points out that the essence of science is the ontological

reflections on what reality is, and the epistemological reflections on how we can get into it. It can only be through a process of understanding where the central issue is the epistemology in that process—the difference between the object of thoughts and the act of thinking.

It is a matter of meanings in this social reality, and as Gadamer (1992, p. 259) expresses: Science is anything but fact from which to start. Rather, the constitution of the scientific world presents a special task, namely, of clarifying the idealization that is endemic to science. But this is not the most fundamental task. When we go back to “productive life”, the antithesis between nature and spirit does not prove to be of ultimate validity. Both the human and the natural sciences are to be understood as achievements of the intentionality of universal life, that is, of absolute historicity. Only this kind of understanding satisfies the self-reflection of philosophy.

It is those reflections and an understanding of science that the students must enter. The reflections are to develop an understanding of science, to find themselves in the field, to understand problems and create knowledge and to develop the self. It is a question of engagement and reflection. The process of becoming a student and learning is entering into the complexity of what reality is and how we can create knowledge about it. This is a complexity full of contradictions, and the demand is the need to develop an understanding of what science is, what arguments and logics is [are?], what the consequences are when applying different perspectives. In short, there is a demand to develop an ontological and epistemological consciousness of both science and the context of problems.

## Understanding Interrelations in Engagement

It is necessary to formulate an ontological and cognitive ground as a philosophy of reality and how to understand the process of knowledge. The development of a consciousness in this is the project for any student, as it is for the scholar. The development is the dialectical process between engagement, understanding and openness.

## Engagement

Engagement is about leaving the naive position in the everyday of life, where the things taken for granted govern the way of thinking. It is what Husserl (1962) talked about: become conscious about the possibilities in life and understand yourself. The typical obstacle in business economics programmes when students work with projects and assignments is the formal expectation that the students are doing a literature review. This expectation is not “evil” as it rests on the idea that students need to read, to acquire knowledge. But it builds on the traditional idea that the field is constructed by objects and theories about them, so when students see the “whole” (which is an illusion) they can formulate the problem from the “gaps” in the field. The idea that all knowledge in a field is the sum of previous knowledge is a misunderstanding or an ignorant position neglecting that there are different ontological and epistemological perspectives that contradict each other. The PBL approach is the opposite in that any problem must be understood before entering a theoretical arena. The deductive approach raises questions and answers from its own premises. It is the opposite of open and engaged. It is conservative and confirms what is already known from the dominant theories in the field, and it is not open to formulating problems in another way and to searching for answers from other angles. Frequently, students in business economics, when asked if they should look to other fields to understand their problems, Sociology, for example, respond: “We are not in sociology, we study business economics”. This is sad, but it is what we talked about in referring to Wittgenstein (1921, 1993), Husserl (1962) and others. Engagement is not to learn what has already been written, but to explore fields, read and think broadly, construct your language and develop yourself. It is to be engaged in your own development, becoming wiser.

## Development of a Foundation to Understand and Be Open

Understanding is the crux in the ontological and the epistemological discussion of knowing and learning. Understanding is essential to establish

a learning process and to understand science and methodological discussion. Understanding is central to man in his creation of meaning in everyday life. Heidegger (1962, p. 26, 33) focuses on the universal aspect by emphasizing that all science and methodical cognition is secondary in relation to understanding on the basis of which man finds his bearings in his everyday life and world of practice (see also Wind 1987, p. 13). The precondition of all scientific knowledge is the knowledge experienced in the prescientific Lifeworld.

In the scientific and empirical contexts, to understand is *to seek understanding*. This has no underlying positivistic ideal of seeking for natural laws and rules, nor of explaining or predicting. It is an understanding of the phenomenon based on investigation through a description and/or an interpretation of the description. Understanding is not to study the individual horizon of another person in the form of re-experience or empathy. There is no such method. Understanding is something that overtakes you or happens to you, when being open and impressionable. In that sense understanding is to make experiences. Understanding, like action, always remains a risk and never leaves room for the simple application of a general knowledge of rules to the statements or texts to be understood. Furthermore, where it is successful, understanding means a growth in inner awareness, which as a new experience enters into the texture of our own mental experience. Understanding is an adventure and, like any other adventure, is dangerous (e.g. Gadamer 1986, p. 109). Understanding is not satisfied with simply wanting to register what is there or said but goes back to our guiding interests and questions. One has to concede that the hermeneutical experience has far less certainty than that attained by the methods of the natural sciences. But when one realizes that understanding is an adventure, this implies that it affords unique opportunities as well. It is capable of contributing in a special way to the broadening of our human experiences, our self-knowledge and our horizon, for everything understanding mediates is mediated along with ourselves. Our situation as human beings is that we are historical beings; we are always standing in the middle of history. The phenomenon that we wish to understand, and the I, who want to understand, are both related to a *context of traditions*. The aim of understanding is not only to understand the other, but also always understanding of one's self. Understanding is

something penetrating all our experiences, because understanding is not a method, but a way of existing as a human being. All understanding is ultimately self-understanding (*Sichverstehen*) (Gadamer 1992, p. 260). During our whole life we continue to interpret and reinterpret our experiences in life. The very memory is a continuously repeating act of interpretation.

The whole matter of learning and education is a matter of understanding. The process of understanding is always a process of self-understanding, and thereby we are always in the process of cognition and the philosophical investigation of reality. This not just what appears; it is not in itself. It is always dependent on the subject and the subjects.

## The Context of Learning and Self-Development

The discussion points to a last dimension in understanding engagement and self-development. “Understanding” is interaction, both self-interaction and interaction with others.

### Self-Interaction

Self-interaction is the thinking of thinking, or what Sartre (1992) discusses as the reflective consciousness (also calledthetic-consciousness or positional self-consciousness), as the attempt on the part of consciousness to become its own object. Self-consciousness is the only mode of existence, which is possible for a consciousness of something (Sartre 1992, p. 14). Consciousness is not possible before being, and being is the source and condition of all possibility; its existence implies its essence (Sartre 1992, p. 15). Consciousness is always consciousness of something. It is my seeing and to relate myself to something, and a consciousness of the consciousness in that seeing and in that thinking. But to see is to understand my seeing, and become open to new ways of seeing. This self-consciousness is interaction with myself, and it is a reflection of my own being. It is a philosophical investigation of my own thinking, and

demands both a language and readings. Mead (1962) and Blumer (1986) argued that individuals are actors who alone or in a group interact in a variety of situations. Since human beings are thinking and reflecting, these interactions and the ability of humans to create symbols (language and gestures) will be the foundation, before the development of reflection as self-interaction, and as a demanded foundation of the development of the self and the learning process.

## Interaction with Others in a Learning Context

In understanding PBL and self-development the context is important, along with the discussion of what interaction with others means. Interaction in a learning context is interaction between the teacher and between the students—it is sharing here and now, to confront each other with wondering, questions. It makes a difference to act in the same room and space. Interaction in general in a context is through symbols, language and their meaning. Language is not only lexicon and grammatically correct expressions; meaning is derived from context. The interactions themselves redefine and create a new set of circumstances from which the learning context evolves.

When discussing interaction and symbolic meaning we can see them as linked to Blumer's two concepts: *interactionism*, an interest in understanding people's interaction and larger social formations, that is, the collective; and *symbolic*, a discussion and understanding of how people interact and communicate, how this is possible? It can be understood as a dialectical interdependence between human beings and their social environment (see Singelmann 1972, p. 415; Rose 1962, p. 5). Blumer (1986, p. 2) sees symbolic interactionism in three simple premises: (1) Human beings act towards things based on the *meanings* that the things have for them. Such things include everything that the human being may note in his world. Symbolic interactionism sees the meanings that things have for human beings are central in their own right. To ignore the meaning of the things towards which people act is seen as falsifying the behaviour under study and is to neglect the role of meaning in the formation of behaviour. (2) The meaning of such things is derived from, or arises

out of, the *social interaction* that one has with one's fellows. The source of meaning arises in the process of interaction between people in a social context. The meaning of a thing for a person grows out of the ways in which other persons act towards the person with regard to the thing. Their actions operate to define the thing for the person. Thus, symbolic interactionism sees meanings as social products, as creations that are formed in and through the defining activities of people as they interact (Blumer 1986, p. 4, 3) These meanings are handled in, and modified through, an *interpretative process* used by the person in dealing with the things he encounters. The use of meanings by a person in his action involves an interpretive process. This process has two distinct steps (Blumer 1986, pp. 4–5: a): The actor indicates to himself the things towards which he is acting; he has to point out to himself the things that have meaning. The making of such indications is an internalized social process in that the actor is interacting with himself. (b) By virtue of this process of communicating with himself, interpretation becomes a matter of handling meanings. The actor selects, checks, suspends, regroupes and transforms the meanings in light of the situation in which he is placed and the direction of his action. Accordingly, interpretation should not be regarded as a mere automatic application of established meanings but as a formative process in which meanings are used and revised as instrument for the guidance and formation of action.

All of this suggests that the construction of the learning context is important, and that all learning rests on interaction—interaction with the self, and with others. Interaction and context and the I are placed in time and space. Space and time are the premises for this (see Kant 1781, 1927), and are a priori for existence and being, and by this the premises for learning. Being in the same space at the same time is important, having the possibility to see each other, as human being presenting the thoughts and meanings of something. This is based on the obvious condition for life and sociality, that we can meet and see each other in lived time, as the matter of learning is explored. Time in learning, as all lived experiences take time—to reflect, discuss, read, search, be critical, view yourself—is interaction over time. Education and learning therefore will demand a construction of space and time. This needs to be supplied and discussed with the construction of an atmosphere of openness and



freedom of speech and thoughts, as we discussed above. It is understanding of the human being and the dialectics, and can be seen in the discussion of thinking entrepreneur and educations: “All of this is about understanding the dialectics of the everyday life of the entrepreneur. It is the movement in the entrepreneur, and the movement in his or her Lifeworld and the context involved ... The dialectic in this concerns the changes in handling the situations, from rethinking the way of seeing the project and the situation, to reasoning on it, to acting in another way. Therefore, the dialectic is a learning process of trial and error, and of learning by doing” (Fast 2016, pp. 517–18). It is thinking of education and students in relation to this dialectic and supporting it.

## Conclusion

The discussion of politics and engagement in a PBL environment point out to critical themes and considerations. The development of universities away from an arena of *Phrônesis* to a management system has created less freedom in thought and action (see also Turcan et al. 2016). The mainstream ideas in business economics have had glory days, but consciousness, creativity and the development of the self, less. A collective action strategy is to create a pressure on the political and management levels to see the problems, recognize them and re-establish a living democracy in the learning context.

All education is about learning and creating knowledge. Students should learn the field, its history and theories and what seems important. However, this is not enough. On the one hand, we have the complexity of the world and the contradictions, and all the problems pointed out. On the other hand, we have the development of the self. The students and the programmes need to think of all education as a triple learning process: the dimensions of teaching self-development and cooperation with others. What is important is to strengthen the content and the process of thinking. This means philosophy and philosophy of science need more focus, and not only as courses, but as a conscious discussion in projects and in the investigation of problems. It is not just applying a

theoretical methodological frame, but giving the students tools to reflect and develop their own perspectives.

When summarizing the above discussion, the need to develop the quality of the foundation of higher education and student self-development is a fundamental problem. The discourse and power game introduced years ago has shown very little in relation to develop the quality and create knowledge that is focused upon global problems and local issues. The mainstream theories and mainstream thinking are a part of the problems that society and business are confronted with. The global discussion and awareness of sustainability and climate changes is not a question of interest. It is something that needs to be incorporated in all educations and business thinking. The development of green tech has been going on for years, but in the area of business economics things are different. The focus on thinking (philosophical and on theory of cognition) must be developed in the area, with the aim to develop knowledge that can be a part of solutions of sustainability and at the same time ensure the quality of life and development of students' thinking.

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# 8

## Is University Management Part of the Problem or Part of the Solution for Problem-Based Learning Development and Critical Thinking?

Birgitte Gregersen

### Introduction

This chapter discusses opportunities and barriers for management to support and develop reflective Problem Based Learning (PBL) curricula as a response to the populist/political (read neoliberal) agendas that increasingly have influenced contemporary universities since the 1980s. At the university level these neoliberal agendas are reflected in:

- *Increasing marketization of education and science.* Public and private universities increasingly compete on a global scale for students and research funding. Study programmes that are not profitable in a narrow economic sense or supply graduates that are not in demand or directly employable in industry or public sector are closed down.

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Funding of basic and free research at public universities is declining relatively to so-called competitive research funding. We see M&A involving universities and other higher education institutions (HEIs) in order to enhance scale and scope as a means to improve competition and climb the ranking lists. We see customer diversification in the form of specialization in mass education programmes on the one hand and niches targeting elite students and researches on the other. In other words, populist neoliberal notions of global economic competitiveness have entered the university sector (Beiter 2019; Kubler and Sayers 2010).

- *Increasing corporatism of universities and HEIs.* Corporatism is to a certain degree a logical consequence of the increasing marketization of universities and HEIs. It is manifested in governance methods blindly transferred from the private business world, including a business growth philosophy, hierarchical management systems, individual incentive mechanisms (for instance, Publish or Perish), quality audits (although mainly based on quantitative indicators), mainstreaming of administrative procedures, internal and external communication lingo, where students are customers, local businesses are partners, and other universities are competitors (Scott 2018).<sup>1</sup> There are not many signs supporting that corporatism and New Public Management systems have increased efficiency. On the contrary, these management regimes allocate more and more resources for administration and various layers of management at the expense of academic staff. The ‘performative university’ where more or less arbitrary ranking lists are used for publicity (if your university takes a step up), where promotion mainly relies on number of publications in a limited selection of top journals, where individual salary depends on ability to attract external funding, and where self-governance and collegiality is replaced by top-down management, in such a system there is a high risk that academic freedom, critical thinking, and scholarly integrity come under pressure.
- *Increasing demand for accountability and short-term impact of research.* Public funded university research should of course be relevant for soci-

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<sup>1</sup> The ‘entrepreneurial university’ as a concept (Etzkowitz 2003; Clark 1998) could also be mentioned as an example of business lingo, although it has a much wider meaning.

ety and help in solving societal problems, but ‘impact’ and ‘outcomes’ have recently become buzz words that on the one hand may tempt researchers applying for external funding to oversell their potential results and on the other hand may induce risk-adverse funding agencies to give priority to short-term applied research instead of research driven by pure curiosity with no warranty of short-term societal impact. History is full of examples on how important discoveries simply emerged by accident, and there is certainly a risk that long-term innovation options will slow down due to a dry-out of the new knowledge and basic research pond, if funding is mainly allocated based on expectations of short-term usefulness and impact.<sup>2</sup>

There are important differences between national systems of higher education institutions to what extent these neoliberal trends of marketization, corporatism, and short-term funding are present. The UK started early and has come very far in implementing these trends (Middlehurst 2004). In the Danish setting, the neoliberal trends have started later than in, for instance, the UK, but especially during the latest five to ten years more and more corporatism and performance-based management has gained power in most Danish universities. In that sense, contemporary university management is part of the problem and not the solution for securing development of PBL and critical thinking. There is a clear need to make a U-turn—to use another populist management term. Three statements will structure the discussion:

1. Disciplinary silos in education and research need to be opened up to stimulate cross-disciplinary collaboration in order to practise PBL when solving important societal problems.
2. All three university missions—teaching, research, and external collaboration—need to be synchronized and integrated to develop a true-hearted PBL approach.

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<sup>2</sup>The Danish-American Nobel Prize winner in physics (1975), Ben Roy Mottelson, has expressed that “if H.C. Ørsted – who discovered electromagnetism in 1820 – had lived under the regime of the current strategic research councils, he had invented an improvement of candlelight instead” (Information, January 4, 2008).

3. University governance and management structures need to be aligned with a PBL approach to allow for experiments and critical thinking.

Despite the fact that these three statements are interrelated, each is first treated separately before taking a closer look at the role of management.

## **Silo Thinking in Education and Research as Blocking Mechanism**

Most real-world problems are complex and can seldom—if ever—be fully understood by drawing on a single scientific discipline. Take, for instance, any of the 17 UN SDGs. None of these can be accomplished without drawing on knowledge from a broad range of disciplines within science, engineering, the social sciences, and humanities. Policy makers, university directors, researchers, and funding bodies have for many years advocated collaboration across scientific disciplines and key partners in order to solve societal problems, but persistent factors block the bridge between good intentions and practice at most universities. Organizational and financial structures play a key role and so do the management and researcher's perceptions of how new scientific knowledge is generated and how to achieve a balance between specialization and interdisciplinarity. Let us start with the latter, scientific knowledge generation and interdisciplinarity.

Interdisciplinarity can be defined in a narrow or a broad way, but the terms narrow and broad are relative depending on the perspective. Narrow could, for instance, be perceived as different sub-disciplines within business economics like marketing, finance, or accounting, but it could also be seen as sub-disciplines within a sub-discipline—for instance, specializations within marketing (consumer behaviour, B2B marketing, quantitative market analysis). Similarly, interdisciplinarity in the broad sense depends on the point of departure. Combining programming, AI, and social science in a Social Data Science curriculum opens up for many new ventures but it can at the same time be regarded as a relatively narrow approach compared to, for instance, 'urban planning' or 'sustainable



development' as fields of study. In other words, we need first to agree on a problem definition in order to be able to determine how a narrow or broad scope of academic disciplines is relevant in order to analyse and solve the problem.

For years, two parallel perceptions of how interdisciplinarity and creative performance are best applied in research, learning, and problem-solving have dominated the discussion of how to organize study programmes and university departments. One view is that students first need to master a specific discipline, so that they possess what is defined as relevant specialized knowledge on a well-defined level to bring to the table as the basis for collaboration with other specialists. Another view is that too early specialization makes students scientifically narrow-minded and unable to see limitations in the theories and methods of their own discipline with less interest and capability to study problems defined outside standard curriculum later in their study or after graduation. To find the right balance in this trade-off between specialist and generalists is context dependent and has changed over time.

Most of the problem-based universities established in the 1970s started from a philosophy based on consecutive programme specialization and a relatively broad view on interdisciplinarity. As an example, when Aalborg University, Denmark, was established in 1974, several departments were established as cross-faculty departments bringing engineering together with business administration in the Department of Production; parts of engineering, humanities, and social sciences were together in the Department of Development and Planning. All students within social sciences, independent of discipline, followed the same first year study programme (a basic year) before they gradually specialized in economics, political science, sociology. The same progressive specialization structure was mirrored within engineering and humanities. However, over time this interdisciplinary organization of study programmes and departments has changed towards more specialized departments and study programmes. At Aalborg University the last cross-faculty department between humanities and social sciences was reorganized and the staff was split into existing monodisciplinary departments by August 2019. Today,

Aalborg University is mainly organized in disciplinary silos just like a traditional university; however, see note 3.<sup>3</sup>

Interlinked factors have urged this development towards a silo organization of research and study programmes. Clearly, a certain specialization is necessary in order to make scientific progress, and expensive research labs and equipment foster pooling of resources and knowledge in specific scientific disciplines. Without doubt, the unlimited growth of scientific knowledge is closely related to paradigmatic specialization and genuine search for understanding complex phenomena. Mutual and reinforcing development of research, new technologies and scientific methods, industrialization, economic development, social and cultural changes, urbanization, climate change have all spurred an increase of new disciplines during the twentieth century. As Scott (2017) formulates it: “disciplines are in a state of perpetual flux, subject to permanent revolution” (Scott 2017, p. 12).

Related factors with a tendency to reinforce a silo specialization approach are academic career paths based on publications in high-ranked specialized journals, university ranking systems based on disciplines, and public and private research funding systems structured on the basis of disciplines in combination with risk-averse performance allocation mechanisms. Furthermore, it may be noted that senior academics also support the disciplinary silos because these have helped to establish their reputations. We return to these elements later in the discussion of the role of management.

The silo thinking and specialization trend is further propelled by the Danish funding structure and activity-based allocation of budgets for basic research and teaching from the ministry level to the university, and from the university to the faculties before it finally trickles down to the individual department. At each of these governance levels it is in principle a policy decision (and thus a power game) about how funds are allocated to and between faculties, departments, and disciplines, but in reality, it is difficult to change the current basic budget model radically at

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<sup>3</sup> It might seem paradoxical that during the same period many of the most recognized international universities have taken initiatives to overcome silo organization and silo thinking by establishing new cross-faculty departments and centres.

the single university level as long as quantitative performance measures drive inter-organizational competition and resource allocation. In that way, New Public Management seems to have reinforced silo organizations in the Danish university sector through hierarchical governance structures and quality control system building on hard (quantitative/economic) short-term performance measures. What is the relevance of this for PBL? Part of the answer is related to a much-needed integration of the three missions of universities: teaching, research, and external collaboration (third mission activities).

### **Engaged Scholarship: Synchronizing and Integrating the University Three Missions—Teaching, Research, and External Collaboration**

PBL is often explained as a specific learning approach for *students*. It provides students with an active role in the acquisition and creation of knowledge—it is student-driven more than teacher-driven—and it redefines the role of the teacher in the learning process. On top of the interactive knowledge creation the PBL approach brings various additional skills that improve student' employability in the broader sense, including capability to work in teams; capability to combine theory and practice; capability to define, describe, analyse, present and solve problems; capability to reflect, receive, and give constructive critique; intercultural understanding; and project management skills. These clear benefits of PBL as a learning approach for students are all well-documented through more than 45 years of experience.

However, PBL is not only relevant for the university's first mission—learning and teaching. The second mission (research) carries PBL in its DNA. Van de Ven's concept of 'engaged scholarship' has many similarities to PBL in its ideal form applied to research:

“Engaged Scholarship is defined as a participative form of research for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems. By involving others and leveraging their different kinds of knowledge, engaged scholarship can produce knowledge that is more penetrating and

insightful than when scholars or practitioners work on the problems alone” (Van de Ven 2007, p. 9). Vignette 8.1 provides two examples of how engaged scholarship can be linked to PBL in relation to student projects.

### **Vignette 8.1: Engaged Scholarship and PBL in Student Projects**

#### **Example 1: The Nursing Home of the Future**

In 2009 Aalborg Municipality initiated a project called ‘the nursing home of the future’. It should apply the newest knowledge within elderly care, architecture, design, and new technologies. Aalborg Municipality formulated different challenges for solutions and students from different disciplines—architects, sociologists, nurses, economists, accountants, planners, software engineers, and so on—worked together. Ideas and models were created, and workshops and solution camps with elderly organizations, municipality, nurses, and handicap organizations were established. Many students’ ideas were implemented, and the first residents moved in primary 2014. Experiments and student groups are still involved in developing welfare technologies for elderly care applicable at nursing homes and private homes.

#### **Example 2: Collaboration with Local Companies**

At fifth semester at the bachelor programme in Business Administration all students make a semester project together with a local company. Together with the companies the students identify what problems (or challenges) they find most relevant to solve or study. For many of the small- and medium-sized companies in the region, such student projects are the first collaboration with the university—often leading to further collaboration in the form of new student projects, guest lectures, or research projects involving university staff.

Source: Gregersen (2017, pp. 376–377)

Collaboration with external partners is an integral part of a PBL approach for students and for engaged scholars in the Van de Ven sense, but from a university management perspective external collaboration is defined as a third mission, which includes all activities that fall outside the two first missions (teaching and research). Molas-Gallart et al. (2002) defined third mission activities as activities “concerned with the generation, use, application and exploitation of knowledge and other university capabilities outside academic environments. In other words, the Third Stream [Mission] is about the interaction between universities and the

rest of society” (Molas-Gallart et al. 2002 pp. iii–iv). In that way the term is rather fuzzy, and often it is difficult to make a clear distinction between the three missions. For instance, when students collaborate with and find solutions for local firms’ problems, the target is both education of the students and at the same time providing solutions for non-academic communities (society). Third mission activities first became mandatory for the Danish universities in 2003. As stated in the Danish University Act (Danish University Act no. 403, May 28, 2003, section 2:3):

The university shall collaborate with society and contribute to the development of international collaboration. The university’s scientific and educational findings should contribute to the further growth, welfare and development of society. As a central knowledge-based body and cultural repository, the university shall exchange knowledge and competencies with society and encourage its employees to take part in the public debate.

Of course, universities’ and other higher education institutions’ direct and indirect contributions to the wider society date back longer than 2003. However, the focus, demand, and expectations from external and internal university stakeholders on universities’ capability and obligations to collaborate and perform third mission activities have been escalating during the latest 10–20 years—not only in Denmark but worldwide. Several interrelated factors are driving the development. One has to do with the increasing importance of higher education and research as a precondition for competitiveness and economic growth in the knowledge economy. Universities and other HEIs have become key actors in the national innovation systems (Gregersen and Rasmussen 2011; Lundvall 2002). Another driving factor is the growing importance of the so-called ‘new modes of knowledge production’ or ‘Mode-2 knowledge production’ emphasizing that new knowledge production often requires close interaction between science, technology, and society—between theory and practice (Gibbons et al. 1994; Nowotny et al. 2001; Etzkowitz 2003). Finally, both national politicians and university management hope to see external collaboration and other third mission activities providing new

external funding opportunities supplementing resources for teaching and research.<sup>4</sup>

However, as the existing financial model allocates resources only for teaching and research, it has been a strategic challenge for the universities on how to prioritize the type of external collaboration that the universities should engage in. Should ‘strong’ partners that can pay the full costs be prioritized? What then about SMEs and other less resource-strong groups and communities?

It is important to note that there are considerable differences between universities with regard to third mission activities and how they are organized (Benneworth et al. 2016). In a comparative study of two middle-sized Danish regional universities (Aalborg University [AAU] and Southern Danish University [SDU]), Gregersen, Linde, and Rasmussen (2009) found clear differences in the way third mission activities were actually approached; see Table 8.1.

Adjustments to the overall general picture may be the case for both universities (AAU and SDU) during the last ten years, but Table 8.1 still reflects quite different regional contexts—especially in relation to industrial specialization and characteristics of firms in the two regions. But not only are the external factors important, so are the internal university factors, especially differences in scientific disciplines and prevailing teaching models. In other words, despite overall general development trends impacting on contemporary universities, there is still room for manoeuvre at the single university level. How university management at different levels administer this room for manoeuvre determines the degree to which PBL can flourish and contribute within each of the three missions. This discussion is the focus of the next section.

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<sup>4</sup>As an example, a former liberal Danish Minister of Research (2001–2010) launched the policy doctrine for Danish universities: “From research to invoice”.

**Table 8.1** Illustration of third mission approaches at AAU and SDU

	AAU	SDU
<i>External context</i>		
Demand or supply driven	High degree of supply driven (from the university to the region)	High degree of demand driven (from large private companies to the university)
Relative importance of university R&D share in the region	High	Medium
<i>Internal context</i>		
The mission as part of the inherent culture, especially the prevailing teaching model	Integrated from the very beginning (1974) Part of the founding 'university culture', especially related to PBL	Relatively new focus stimulated by the integration of the Business and Engineering school
Range of mission activities	A broad palette of activities	Concentrated in a relatively small number of areas
Dominating scientific disciplines in relation to third mission	Engineering and to lesser extent business administration and communication	Mainly Engineering
Specific third mission and organizations and institutions	Gradual evolution of supportive organizations and institutions Internalization of specific organizations as part of university administration	Relatively new phenomenon Externalization of specific supportive organizations and institutions
Allocation of resources	No explicit allocation model for third mission activities	Explicit allocation model for third mission activities in specific departments

Source: Gregersen et al. (2009, p. 155)

## Aligning University Governance Structures to a PBL Approach to Foster Experiment and Critical Thinking

A part of the management literature argues that management is a general profession in the sense that there are no important differences between the management of a knowledge institution like a university and a shoe factory. The few differences have mainly to do with understanding the specific terminology for different types of organizations. According to this perspective, such small differences can easily be learned after a quick introduction and a walk through the facilities. Although contemporary universities (like any organization) include standard routine tasks, universities are quite specific entities in their societal purpose/mission and organization (Bento 2011; Shattock 2002; Churchman and King 2008). PBL in all three missions comes under pressure when the layers of management forget that the real success of a university depends on highly skilled professionals able to take responsibility for their own work, and instead imposes hierarchical top-down management in a silo-dominated structure.

That private universities have become big business and have introduced management principles borrowed from large private corporations may not come as a surprise. However, recently public funded universities all over the world have jumped on the same train. The flag of worries has been raised by several scholars that these forms of New Public Management (NPM) might be contra-productive to the main role of universities. Nonetheless, only peers seem to share the concern, and the NPM train continues at even higher speed in many public universities while at the same time similar management principles are becoming obsolete in most private sectors.

One very visible effect of the NPM governance structure in Danish universities is the increased focus on more and more quantitative performance criteria, for instance, students' efficiency measured as number of students that graduate without delay, number of publications in high-ranked journals, number of external collaborations, number of PhDs, number of Nobel Prize winners, amount of external funding, numbers of



centres of excellence, and many more. It seems that all that can be counted is counted and benchmarked regardless of relevance. It also means that more administrative resources are allocated to control and report to an increasing number of management layers with no or little knowledge and experience of teaching, research, and external collaboration. Paradoxically, NPM often goes together with so-called soft HR management principles colonized with concepts such as team-based organizations and value-based management and leadership. Introducing these 'hard and soft' management principles in Danish universities has not only increased the administrative costs and bureaucracy relative to and at the expense of resources for teaching and research. It has also extended the cognitive and power distance from the single teacher and researcher 'on the ground' to the management at the top. If this continues, there is a risk that a top-down-driven hierarchy will destroy collective commitment and responsibility at the bottom. John Child (2019) in his latest book on hierarchy convincingly raises this concern in relation to hierarchy as a governance principle providing examples from various types of organizations.

Independent of the level of governance, management often finds itself in a cross-pressure situation. The Dean may experience pressure on the one side from the Director of the University to keep the allocated budget at the Faculty level and on the other side pressure from the Heads of Departments to allocate more resources to their departments to secure quality teaching and research. At the department level the cross-pressure is similar. The Head of Department has to keep expenditures within the allocated budget and deliver the required performance outcomes to the Dean and on the other side manage the demand for more resources and better work-life balance from administrative and academic staff, students, and other interest groups. However, despite NPM and the general pressure on HEIs, there is still (some) room for manoeuvre for management and staff at the department level on how teaching, research, and external collaboration are organized, if the will and interest are present.

The room for manoeuvre for management (and staff) at the department level concerns both the institutional setting supporting PBL as a learning approach and the content and focus of curricula and research activities. First, we emphasize specific management issues related to maintaining and nurturing a PBL approach. An essential—but not

always easy—prerequisite is that PBL has to be an integrated part of the strategy and resource allocation at all levels from teaching committees, research groups, and management. To have PBL as an integrated part of the curriculum requires (i) PBL qualifications for all teaching staff, (ii) external collaboration and legitimization, (iii) allocation of resources and facilities, and not least, (iv) management understanding of their management task.

## PBL Qualifications for All Teaching Staff

With mass education increasingly focusing on teaching qualifications, pedagogy courses are normal requirements for university teachers. As mentioned earlier, PBL redefines the role of the teacher in the learning process. To let the acquisition and creation of knowledge be more student- than teacher-driven may be difficult to accept and handle, especially for teachers or supervisors educated in a more traditional university setting with a fixed and detailed curriculum conveyed in the lecture hall. Several management-related aspects influence how PBL is implemented and developed over time:

- *Commitment from research and teaching groups to apply and develop PBL in teaching and supervision.* If we look at the 45 years of PBL experience at Aalborg University, it is clear that there are differences in the way PBL is implemented in different study programmes and faculties. Concurrently with the growing silo organization along disciplines, allocated time for students (measured in European Credit Transfer System (ECTS)) and staff (measured in supervision hours) to PBL in the form of project-organized group work has come under pressure to squeeze more organized course work and individual exams into the curriculum. Of course, PBL can be implemented in course work, but in practice it often appears as exercises within a finite sample space. Adopting the ‘engaged scholarship’ approach at the research and teaching group level may be one way to safeguard PBL.

- *PBL as an explicit requirement in staff recruitment.* Although teaching and supervision play a dominant role for most university professors, it is often the research merits measured in number of papers and citations in high-ranked journals that determine the academic career path. Giving more weight to teaching experience and explicitly underlining PBL qualifications in job announcement are obvious procedures that management can use.
- *Introduction to PBL in context for new staff.* Unfortunately, it is not unusual that a new member of staff is expected to just blend in and take on supervision responsibilities from the first working day. Learning by doing might be an OK approach in some circumstances, but not at least in the case of young staff; it would benefit the students and the staff member if an introduction to PBL in the specific context is institutionalized.
- *Life-long learning in PBL approaches for teaching staff.* That PBL is an integrated element in compulsory pedagogical training for assistant professors at PBL universities is clear. However, ideally, pedagogical training, learning, and renewal of pedagogical qualifications in the digital age should be high on the agenda for teaching staff at all levels. To realize that requires allocation of time and resources.

## **Collaboration, Recognition, and Support from External Partners and Employers**

When Aalborg University was established as a new PBL university, scepticism among established universities and employers was high towards the teaching and learning approach based on project-organized group work and group exams. It took several years—and admittedly some adjustments—before graduates from Aalborg University were recognized in the same way as graduates from the old and well-established Danish universities. Support from regional stakeholders and not least local firms' and public and private organizations' willingness to engage with students by providing internships, case material, and project ideas for all kinds of study programmes has been vital for surviving and further development of the PBL approach during the 45 years of the university.

## Allocation of Resources and Facilities

From a management perspective, PBL in education and research requires specific types of resources and facilities to support students, supervisors, researchers, and external collaboration partners.

- *Allocation of resources for experiments with new ideas and different approaches.* When students and researchers start the research journey, the end result is not known. Students may start with an idea and find that what they first defined as a problem turned out not to be a real or relevant problem. Or they may realize that they did not manage to solve the problem within the given timeframe. This risk may make students (and their supervisors) insecure, and if there is no room for experiments, students and their supervisors may limit their problem formulation, methods, and analysis to take a more secure and confident road. Competition for high marks and jobs, pressure to finish ‘in time’ may push students in that direction. The same risk applies to researchers due to the prevailing ‘publish or perish’ doctrine and the current external funding system, where more and more funding is allocated to established researchers that can document that they have a long track record in the relevant topic. There are good reasons for not wasting tax-payers’ money, but the long-term risk is that the stream of genuine new knowledge and solutions to societal challenges dries up if the source spring of basic research dries out. Management at all levels of the university has a responsibility to restrain the populist trend that research should be able to demonstrate impact and relevance for the industry or other external stakeholders even if it is only short term. A PBL approach with room for experiments can be a way to balance the various interests. In the study programmes, it can be (or should be) done by making sure that each curriculum contains enough freedom for students to go beyond their main discipline. Learning outcomes and assessment criteria might need to be revised to stimulate creativity and students’ courage to follow new roads.
- *Physical facilities and IT infrastructure (group rooms, meeting places, IT)* does not need many comments, just that despite Google docs, emails,

Skype, and online libraries student groups still meet on campus to coordinate and discuss their project work and hence there must be an appropriate, adequate, attractive, and networked space for them.

- *Dedicated and integrated administrative support.* Above the focus has been on teaching, research, and third mission activities, but from a management perspective it is important to have integrated and accessible administrative support functions for students and teachers/supervisors. This applies not least to student projects carried out in collaboration with external partners. These types of collaboration require persistent coordination and effective communication before, during, and after each project semester to maintain, develop, and expand collaboration year after year. Aalborg University's central 'third mission' department once estimated that every semester around 2000 student projects are carried out in collaboration with companies and other external partners.

## Management Understanding of Their Management Task

Using the terminology of Mintzberg (1993), a university can be expected to possess many characteristics in common with a professional bureaucracy in the sense that key actors (university staff) have wide-ranging decision powers and the freedom to organize their work (be it teaching, research, external collaboration, administration). It implies that key decisions are decentralized to the operative core consisting of highly educated specialists with the highest level of knowledge and competences available. Due to the extreme specialization of staff according to academic disciplines, the structure is characterized as horizontally complex. If, on the other hand, hierarchical management structures originally designed for a simple machine bureaucracy are implemented in such a horizontally complex organization, you will expect that a clash of civilizations is approaching. However, such a clash has not materialized—at least not in the Danish context. Critique has been raised, but mainly internally among academics in academic journals. Using a combination of sticks and carrots, it seems as though the current governance structure

characterized by hierarchy and centralization of decisions will survive several years ahead.

As in all hierarchies with rigid top-down decisions there is a risk that engaged scholars become less engaged and leave initiatives and responsibility to the formal management. On the other hand, if the various layers of university management decide to scale down the NPM tendencies, it could give better room for PBL approaches based on critical thinking and experimentation.

However, it seems to be difficult to break out of the NPM doctrine and hierarchical organizational forms once they have been introduced. The drawbacks of not 'breaking out' have direct consequences for curricula and research. One way this is reflected is by mainstreaming existing study programmes, so students' influence on the focus and methods used in their semester projects are limited by curricula. Another consequence is budget allocation at the single programme level, so that study programmes with few students are closed and only programmes that are 'profitable' (in the narrow sense) are maintained. As more and more restrictions are implemented directly in curricula or indirectly by lack of resource allocation, it becomes more difficult for students and researchers to organize and participate in cross-disciplinary activities. One promising exception from this trend is that most universities have started initiatives to deal with the 17 UN SDGs. With reference to the SDGs most universities now organize activities within all three missions.<sup>5</sup> Some of these SDG-related activities may turn out to be 'green-washing' or 'window-dressing', but many activities do have a potential to be more than that. Whether it will generate a 'new 1968 student revolt', it is far too early to say.

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<sup>5</sup>An example from Aalborg University is problem-solving organized around 'mega-projects', where students from all disciplines are offered a possibility to work together in cross-disciplinary groups with various SDG-related projects. An example of one of these mega-projects runs under the heading 'the circular region'; another is about 'sustainable living'.

## Conclusion

Three interrelated statements have been put forward in an attempt to discuss how PBL implementation and development can be stimulated in contemporary universities:

- Disciplinary silos in teaching and research need to be opened up to stimulate cross-disciplinary collaboration in order to practise PBL for solving important societal problems.
- All three university missions—teaching, research, and external collaboration—need to be synchronized and integrated in order to develop a true-hearted PBL approach.
- University governance structures need to be aligned with a PBL approach in order to allow for experiments and critical thinking.

These are important tasks, if PBL and engaged scholarship are to flourish. The first step is to reassess the hierarchical structure that currently characterizes university management. This could give room for reintroducing self-governance and collegiality.

As has been indicated above, even in the current management regime there is room for manoeuvre, but management and staff seem unaware or reluctant to exploit these options to stimulate PBL and critical thinking. Comparative studies at the department level of how decision-making on curricula development takes place, how research priorities are made, how university-industry collaboration is organized, and not least how PBL is implemented and modified across disciplines could provide interesting insights for guiding management and policy makers in order to stimulate PBL and engaged scholarship.

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# 9

## The Socially Engaged University: The Complexities of Business Relations Under the New Political Paradigm

Olav Jull Sørensen

### Introduction

Problem-based learning (PBL) is a student-centred pedagogy in which learning comes from identifying, analysing, and solving a real-life problem. PBL requires close collaboration with social reality, that is, the relevant stakeholders. In that sense, PBL fits well into the political agenda, challenging universities in their so-called third mission—the mission in which universities serve societal needs. Traditionally, universities have served societal needs by ensuring the availability of talented young people to fill expert and management positions in the labour market. Universities have also served societal needs through scientific work, delivering science-based and publicly accessible new knowledge that stakeholders may use to serve their interests. In both cases, universities have delivered graduates and research findings at the “university gate”

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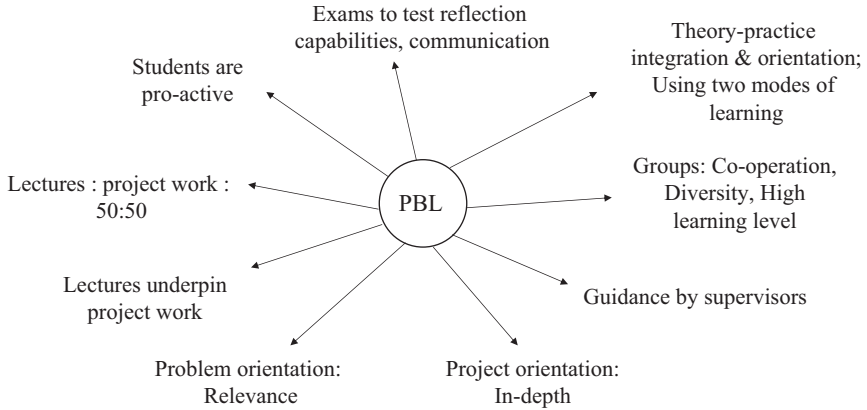
and have not been responsible for or concerned with “implementation,” that is, whether the graduates actually fit the labour market or whether the output from the research is actually useful to the wider society. However, from the third mission perspective, universities should ensure relevance in both education and research.

The aim of this chapter is to discuss the challenge of the third mission, focusing on how the PBL model by its nature lives up to the third mission challenge and how PBL can be extended by building on synergies between education, research, and practice in what we call the “socially engaged university.” This chapter is written from the perspective of the employer of graduates and the user of research findings and aims to identify the collaborative interfaces, frictions, or outright conflicts between what universities do and what employers want.

The chapter starts by introducing the concept of the socially engaged university, which is followed by a discussion of the synergy between two types of knowledge (research and experience-based knowledge) and two types of organizations (firms and universities). The next section outlines the frame for discussing the employer’s perspective from the standpoint of three potential gaps in collaboration: a communication gap, a structural-organizational gap, and a gap related to conflicting values and orientations. As we are focusing on the business community in a market-driven economy, the empirical analysis in the final section presents a case study of a real company and discusses its interfaces and engagement with the university.

## **A Model of the Socially Engaged University**

Student-centred learning implies that students take more responsibility for and are deeply engaged in their education. This does not mean that teachers are not needed, but rather that their role is one of supervision, mentoring, and raising questions rather than providing answers. The essence of the PBL model as practised by Aalborg University is shown in Fig. 9.1. Building on the PBL model and the version developed at Aalborg University (AAU) (Kolmos et al. 2004; Sørensen 2004; Sørensen 2016),



**Fig. 9.1** The essence of the Aalborg University PBL model

we elaborate on and to some extent go beyond the present PBL model, keeping the classical virtues of a university while at the same time being more engaged in the discourse with and among the numerous stakeholders constituting society.

The present PBL model takes its starting point from social reality by identifying and defining problems as they are observed in society. Students then work through these problems by way of theoretical and critical reflections until they find constructive solutions and present those solutions to the relevant stakeholders. The solutions in the present version of PBL are mostly delivered at the university gate, taking the form of student projects for external stakeholders or, in the end, a graduate ready for a job. For students to develop relevant solutions to problems of stakeholders, the PBL model includes interaction with stakeholders to allow students to collect information for the analysis, meaning that the stakeholders are primarily seen as data sources. The socially engaged university (SEU) model builds on the PBL model but goes beyond it, viewing stakeholders as holders of essential complex experience-based knowledge. “Experience” here is a knowledge concept at the same level as research-based knowledge and is a more elaborate and complex concept than data or information. The concept of experience will be elaborated below.

The SEU model retains the classical virtues of a university, including the capability to ask the right questions and reflect critically and constructively as well as having the capability to develop young people socially and intellectually to serve society as managers, leaders, and experts. The SEU model builds on these classical virtues at the same time as it engages directly with stakeholders in raising questions and providing answers and solutions. In addition, while research and teaching conventionally focus on identifying universal laws and patterns across multiple firms, students and researchers engaged with the SEU model and working in close collaboration with specific stakeholders look for differences between and uniqueness within individual firms. The unique solution directly benefits the individual stakeholder while others may also benefit indirectly from the findings, which can serve as a mirror for their own deliberations. To summarize, the SEU model assumes:

- A dynamic social reality which requires researchers to be present and engaged in social reality to know what is going on and what is on the agenda “out there,” that is, researchers need to continuously update their contextualization and empirical facts to raise the right questions and arrive at appropriate solutions.
- Learning and knowledge theory show that knowledge is more than researchers generate through strict research procedures and paradigms. Knowledge is also embedded in experiences, and some of it is even tacit. To gain access to experiential knowledge, we need to engage directly and even co-research with counterparts in social reality.
- New knowledge is generated by integrating theory and practical experience. It may also be generated by integrating existing knowledge from diverse sources as well as by combining existing experiences.

The components and synergies between the components of the SEU model are illustrated in Fig. 9.2. In this model, each of the three parties has its own rationale and agenda, yet at the same time there is a synergy between them; that is, learning and knowledge generation are embedded in the relationships, and the complete model forms an overall learning space.

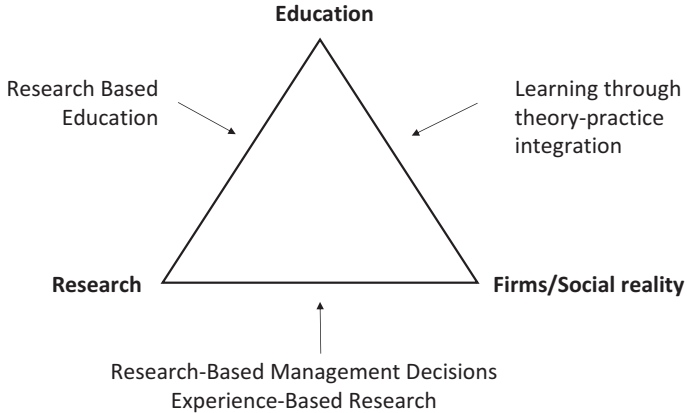


Fig. 9.2 A model of a socially engaged university. (Source: Adapted from Sørensen [2016])

## Synergy from Integrating Two Types of Knowledge

### The Foundation for the SEU Model in the Concept of Learning

The SEU model is based on the principle that learning takes place through interaction, meaning that within the university, the educational/teaching-learning space and research generation space can be seen as the most important learning spaces. Teaching within PBL is research based, that is, based on knowledge generated according to scientific principles and paradigms. However, there is a second route to learning about social reality, which is based on practice (understood as experience by doing or acting). Since experience belongs to the individual and the organization, this form of learning can only be acquired by engaging with reality. Some experience is open and accessible, but it is often embedded in practice and is not easily accessible. In these cases, the experience and the knowledge it contains are tacit.

Both categories of learning are valuable, but when science-based and explicit learning are combined with experience-based learning, a learning

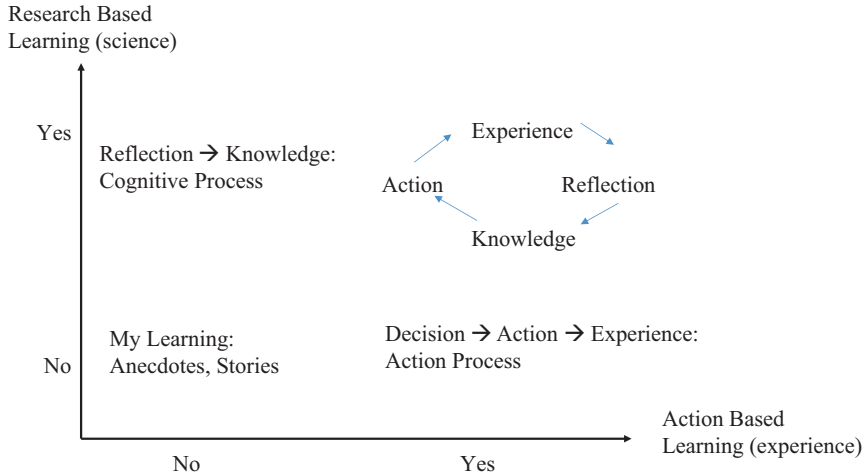


Fig. 9.3 The relation between research-based and experience-based knowledge

synergy arises. It is this learning synergy that the SEU model aims to capture. The two types of learning and the resulting knowledge are shown in Fig. 9.3. We have explicit science-based learning along the Y-axis and experience-based learning along the X-axis. Each axis has two values, that is, we either have or do not have one or both of the two types of learning.

In Cell 1, we find science-based learning, which generates knowledge through cognitive processes, that is, reflection on what we know and then adding to that knowledge through scientific processes. It is a cumulative process, even if we occasionally also have to unlearn. In Cell 2, we have experience-based learning, based on practical actions that leave the learner with acquired experience. This experience takes many forms; for example, it may become routines or trajectories (Dosi 1982; Abernathy and Utterback 1978). Cell 3 represents the essence of SEU. Here, cognitive and action-based learning are combined, constituting the learning space of the collaboration between universities and firms. This learning space can be elaborated in many ways. For example, creativity and learning to be creative is an important quality of the learning space, combining the diversity of knowledge in the learning space. Various creative models and platforms (Byrge and Hansen 2014) have been developed with the aim of

training people to become creative and to generate novelty from the diversity of knowledge and experience within the learning space. Another elaboration is the construct of “absorptive capacity,” which indicates that the capacity to learn increases with the amount of knowledge an individual already has. It also encompasses the ability to spot, transform, and use new knowledge (Cohen and Levinthal 1990). Based on this elaboration of the SEU model, it becomes clear that the focal unit (the unit of analysis) is not the university as an organization but rather the relationship between the research processes and findings from the university and the practice and experience of the firms.

## The Concept of Social Reality and Experience

From the SEU perspective, it is important to define what we understand by social reality and how to include it and engage with it through our research and educational programmes. Most research sees social reality as a set of activities (Porter 1980), functions, actors, and networks or resources that are at times embedded in social organizations such as firms. These perspectives are valuable and useful from the SEU perspective, but they do not constitute the core of the SEU. From the SEU perspective, social reality is a learning space and a stock of experiences and knowledge. Also from the SEU perspective, we want to engage in this learning space and combine the experiences from social reality with the findings from research. This brings us to defining the concept of experiences. Experience is a common word employed in daily use. When the concept of experience is used in this text, it is in line with the following definition (Cambridge Dictionary 2019):

1. (The process of gaining) knowledge or skills from doing, seeing, or feeling things. For example, Do you have any experience of working with kids? (= Have you ever worked with them?). The best way to learn is by experience (= by doing things). I know from experience that Tony never keeps his promises.
2. Something that happens to you that affects how you feel. For example, I had an unpleasant experience at the dentist. It was interesting hearing about his experiences as a policeman. I did meet him once and it was



an experience I shall never forget. B1 [U] (the [process](#) of getting) [knowledge](#) or [skill](#) from doing, [seeing](#), or [feeling](#) things:

The concept of experience has no well-defined position or definition within science. Historically, experience has been looked down upon, as it was associated with simple living. For example, Kant (1781, pp. 83–102), in contrasting experience with reason, stated, “Nothing, indeed, can be more harmful or more unworthy of the philosopher, than the vulgar appeal to so-called experience. Such experience would never have existed at all, if at the proper time, those institutions had been established in accordance with ideas” (Kant 1781, section 1).

When modern science emerged, experience was again not at its centre. Inspired by natural sciences, philosophers believed that social reality existed over and beyond our human mind, that is, reality was objective and manifest (Arbnor and Bjerke 1997; Kuada 2012). Logical and deductive thinking—not our experience—was the way to reveal these “beyond our mind” phenomena. Gradually, as the idea of subjective realities emerged, the concept of experience became more important. Even so, we do not have many constructs and theories where human experience is the core concept. A few examples are mentioned in Vignette 9.1.

### Vignette 9.1: Human Experience as a Core Concept

In evolutionary economics and innovation theory, learning plays a large role, and in these theories, learning manifests itself in trajectories and routines, which are experiences that one selects from among multiple experiences. These experiences are accumulated, and they have been shown to be useful and efficient ways to conduct economic activity (Dosi 1982; Abernathy and Utterback 1978).

The learning and experience curve is another similar theorem indicating the effect of experiences on costs and efficiency (Porter 1985).

Indirectly, experiences form the basis for culture theory (Gullestrup 2006). The sharing of experiences is what creates the values, norms, and symbols of a culture. This is perhaps clearer when we turn to the concept of a “community of practices,” which is founded on work experiences and the sharing thereof (Wenger 1998).

(continued)

**Vignette 9.1** (continued)

“Tacit knowledge” is another concept often referred to in the innovation literature, although the concept originates from Polanyi (1964) and was further developed by Nonaka and Takeuchi (1995) in their seminal model for how knowledge “travels” from tacit to explicit and becomes shared, after which practice again builds tacit knowledge. This knowledge transformation process is not easy, and many theories see tacit knowledge as holding the key to a company’s competitive advantage. Innovation researchers are also interested in this concept, as it explores the limits of the transfer of knowledge.

Some theories of creativity build on experiences as knowledge, with creativity being proportional to the amount of knowledge and especially to the diversified experiences a person possesses (Byrge and Hansen 2014).

In human resource management, work experience plays an important role, but it has no clear definition. It is “measured” roughly in terms of the number of years and the diversity of tasks, while little is said about how to measure the value of experience for performance.

Experiences are at times contrasted to theory, as in the saying “theory is one thing; practice is another,” indicating that theory is not always useful in practice. When we read this saying, we are thinking of theory as a concrete theoretical construct. Theory, however, is not the same as theorizing, which means reflecting on social reality. According to the SEU model, such reflection is necessary in order to move experiences from fragmented anecdotes to knowledge, in line with Nonaka and Takeuchi (1995).

To capture experiences as researchers and students, we need to engage with social reality through multiple sources and approaches. Conventionally, studying at a university is associated with reading texts, listening to lectures, writing exam papers, and speaking in class or during exams. However, another approach may focus on triangulating experience. In methodology, we speak of triangulation as a way to come closer to the “truth” by combining data from different sources. Similarly, we may also practise triangulation by using data from all our senses. For example, during a visit to a firm, we can improve our observations by using all five senses—not just hearing the presentation from the CEO and seeing the production process during the company tour. Upon entering the premises of a company, we may use all five senses to observe what is being displayed in the lobby (often awards), the way the receptionist receives us, the decorations, colours, smell, temperature. All this data can

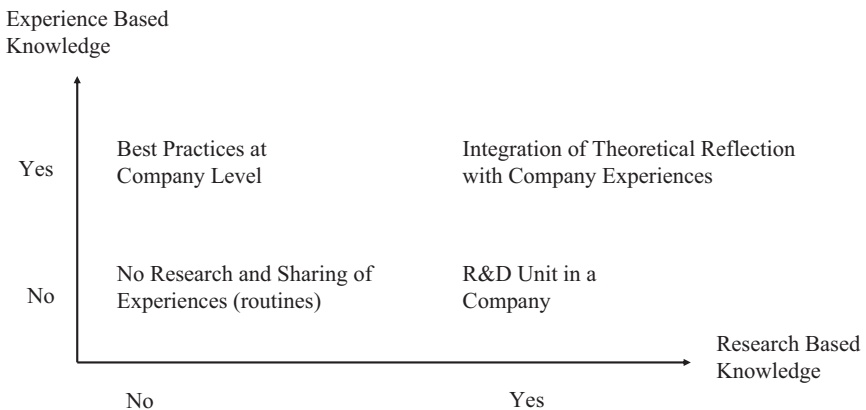
provide a more complete picture of the company. However, this requires training in the use of all the senses to collect data and information and combine them into an experience of/knowledge acquired from a visit to a company.

## Synergy from Integrating Two Types of Organizations

### How Knowledge Is Configured Within a Company

Experience accumulates continuously in a company through the actions and interactions that take place internally and externally. However, this does not mean that all knowledge in a company can be categorized as experience-based knowledge. For example, companies hire new graduates, who bring research-based knowledge to the company. Thus, we can expect that both types of knowledge configure the knowledge of a company at any given time; Fig. 9.4 illustrates this mix of knowledge at the company level.

Large companies will often have R&D centres and analytical units, which will generate knowledge according to research principles (Cell 2). At



**Fig. 9.4** Knowledge configuration at the company level

the other end, we have many small companies with no formal research departments. They will primarily base their operations and decision-making on experiences—and they may have reflected on these experiences and put them into perspective through participation in various courses, trainings, and networks. Gradually a set of “best practices” may emerge (Cell 3). Some companies will not use either of the two kinds of knowledge, meaning they do take action and have experiences, but these experiences are never reflected upon or used to improve the practice of the company (Cell 1). The experiences remain a set of anecdotes, and decisions are based on gut feelings and common sense. Finally, we also have the situation where the company systematically combines its experiences with research-based knowledge gained from outside through collaboration with researchers, consultants, or students. Thus, when companies collaborate with universities, the university can expect the dominance of a specific configuration (Cells 1–4), but it is also possible that the knowledge is configured differently in different departments of the company.

Table 9.1 is an attempt to create a typology of experiences and their use in decision-making, starting with anecdotes (small stories) which when shared may turn into a community of practice and best practices. Assuming the experiences are further reflected upon, practice may

**Table 9.1** Experience typology

Level	activity	Knowledge type	Decision based on
1	Action > experience	Anecdotes and stories	Gut feeling
2	Action > experience > sharing	Tacit knowledge Shared anecdotes and stories Best practices emerge	Shared understanding
3	Action > experience > sharing > reflection	Semi-explicit/tacit knowledge Improve best practices	Reflected understanding
4	Experience integrated with research-based knowledge	Explicit knowledge Improve best practices Explicit knowledge	Integration of research and experience-based knowledge

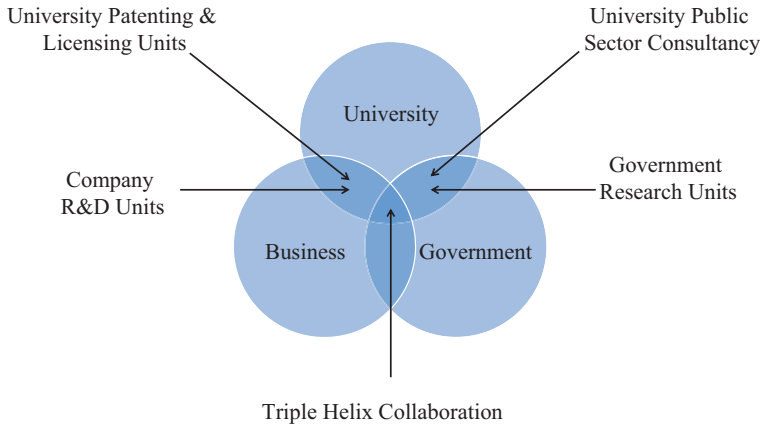
improve and explicit routines may be formulated. If at the end, an integration with research-based knowledge takes place, we have reached a level of highly informed decision-making.

## How Knowledge Is Configured Between University and Company

The relationship between the university and the business community is theoretically discussed at different levels. At the macro level, we find frames such as the business system (Whitley 1992; Rana and Morgan 2019), focusing on the structural elements of the system and their interplay within an institutional frame. Similarly, the national innovation system focuses on structural elements and processes with much greater emphasis on learning and the generation of new knowledge (Lundwall 2010; Etzkowitz and Leydesdorff 2000; Mowery and Sampat 2005). In both cases, numerous stakeholders and actors are included.

At the second level, we find more focused models, such as the Triple Helix model, which focuses on the interaction of three key actors from the macro-models: the business community/firms, the government and its agencies, and the universities as knowledge-generating institutions and producers of experts and managers (Leydesdorff and Etzkowitz 1998; Sørensen and Hu 2014). Each helix has its own agenda and rationale, and a synergy is derived through an interaction between the three helixes. There is also an overlap between the three helixes, as shown in Fig. 9.5. Larger firms have their own R&D department or academy for training employees. Similarly, governments and individual ministries may have their own units for conducting studies of relevance to different policies and/or service contracts and agreements with universities for public sector consultancy. Finally, universities may have their own facilities for production and laboratories for the generation of new knowledge, which can be patented and sold or licensed to companies.

These interfaces and overlaps are of interest in our context as they may be a sign of poor collaboration or outright conflict between the three helixes. However, from a knowledge transfer and development perspective, some degree of overlap is necessary since, for example, a company cannot absorb university knowledge unless it has some employees (knowledge



**Fig. 9.5** Overlap of core competences of university, firm, and government. (Source: Adapted from Sørensen [2016])

workers) who are able to understand the knowledge (Cowen and Liventhal 1990)—a point that will be elaborated below.

At the second level, we also find the theories of innovation modes and innovation output (Jensen et al. 2007; Parilli and Heras 2016). A distinction is made between the science, technology and innovation (STI) mode and the doing, using and interaction (DUI) mode of innovation, the difference being knowledge generated through science and knowledge generated through “doing, using, and interaction” with other firms and knowledge institutions. For this study, it is interesting that an innovation mode where the STI and DUI complement each other provides the best innovation performance related to both technical innovation and non-technical innovation. This chapter builds on this and looks at ways and means to integrate the two innovation modes.

At the third level, the micro level, we have the relations and collaboration between the university and the firm. It is at this level that we can identify the (degree of) implementation of the third mission of the university (Sørensen 1985). The possible interfaces between the university and the firm are numerous, as summarized in Table 9.2 and exemplified in detail in Vignette 9.2, ranging from taking part in university governance or curriculum and research agenda development to delivering a guest lecture or hosting a training session.

**Table 9.2** Interplay between firms and knowledge institutions: a case of Aalborg University and Mekoprint

<b>Collaboration category and activity</b>	<b>Description</b>	<b>Take part</b>	<b>Comments</b>
<b>University governance</b>			
University board member	AAU board have external members	No	
Employers consultative panel	Curriculum has an advisory panel	No	
External examiner (censor)	Exams with an external assessor	No	
Advisory boards	Board to advise on education and research trends	No	
<b>Educational/teaching collaboration</b>			
External/part-time teacher	Short-term teaching contract	None	Interested as part of new collaborative agreement
Mentor for students	Managers to support integration of foreign students into the Danish business culture	No	Interested, but has not been approached by the mentor programme
Guest speaker at university	Firm manager as guest speaker	Yes	
Company visit	Student visits to local firm as part of a course	Yes	Positive if approached, but has not had many visits
Company as case	Case on a local firm prepared for student project	Yes	Interactive case with 50 students, including case, visit, dialogue, and project assessment by firm

*(continued)*

Table 9.2 (continued)

<b>Collaboration category and activity</b>	<b>Description</b>	<b>Take part</b>	<b>Comments</b>
Student projects	Groups of students collaborate with firms to identify, analyse, and solve problems	Yes	For example, fifth semester on firm project
Internships and thesis collaboration	Internships in firms to prepare project and thesis, using the firm as a case	Yes	Three students as interns on third semester continued on the thesis semester as student assistants combining job with thesis writing
<b>Research collaboration</b>			
Survey questionnaires/ interviews	Respond to requests for completing a questionnaire or having an interview	Yes	Normally going through the CEO
Take part in panels	Member of university-based firm panels for surveys and debates	No	
Take part in action research projects	Participant in action-based project with researchers	Once	One project with technological university on solar panels, but opted for an exit
Industrial PhDs/ post-docs	Hosting a PhD project where the PhD student is based in the firm	No	Not so far, but interested as an integral part of the future more formalized collaboration

*(continued)*



Table 9.2 (continued)

Collaboration category and activity	Description	Take part	Comments
<b>Dissemination of research and training</b>			
Attend courses/seminars/workshop on specific themes	Dissemination activity by the university		
Attend part-time educational programmes (MBA; HD) obtaining certificate	Executive management programmes	Yes	Yes, but highly selective
Guest speaker/case at courses/seminars/workshop	Present the firm as a case during a dissemination course	Yes	Positive but only occasionally
<b>Jobs</b>			
Take part in job searching fairs for students	Discuss job opportunities with students at fairs	Under consideration	Not so far, but in contact with the fair organizers
Study relevant part-time job for students	Recruit students for study relevant job or as part of thesis/project preparation	Yes	Recently, three thesis writing students and presently one thesis writing student
Employment of graduates	Employ newly graduated students	Not much	Consider how to align student internships with job training
Employment of graduates through public job schemes	Employ graduates through job promotion schemes	No	
<b>Finance/sponsorship</b>			
Sponsoring positions	For example, a professorship	No	
Sponsoring students (tuition fees; studies abroad)	For example, to study abroad at university or in firms	No	

*(continued)*

Table 9.2 (continued)

<b>Collaboration category and activity</b>	<b>Description</b>	<b>Take part</b>	<b>Comments</b>
Sponsoring events, lecture rooms, laboratories	Sponsoring, for example, a conference	No	
<b>Other activities</b>			
Institutionalization of collaboration	Preparing and signing collaboration agreements	Yes	Signing a Memorandum of Understanding with AAU, 2019–22, for future collaboration
Other collaboration		Yes	Discussing with AAU and other potential partners on the establishment of the Mekoprint Science Park in a vacant factory building

Managers and business associations often find the collaboration between university and firms cumbersome and a problem, although the nature and character of the problem are not always clear. With reference to the existing literature, we shall try to conceptualize the “collaboration problem.” Broadly speaking, the existing literature makes a distinction between the two extreme modes of conducting business (market and hierarchy), with a large grey zone between the two extremes, interchangeable denominated collaboration, strategic alliances, networks, and partnerships (Powell 1990; Child et al. 2005; Barnes et al. 2012).

Hierarchy as an organizational form with a clear line of command implies that the firm has internalized activities because of no other alternatives. In our case, it may be that no university can deliver the needed specialized knowledge or talent, and thus firms establish their own internal facilities for R&D and training of employees in, for example, a “corporate academy.” In this case, the collaboration gap is large. At the other extreme, the market scenario, information, knowledge, and expertise are readily

available at a price. For example, the firm may (1) buy raw data for analysis, such as data from statistical bureaus, (2) buy a package of knowledge, such as a patent, licence, or consultancy service, or (3) acquire the information, knowledge, and expertise from the Internet. In several cases, the knowledge and information may even be a public good and offered free, for example, in scholarly journals, on Internet pages, or through having students work on a firm's problem as part of their education. Similarly, universities may acquire information through the firm's website and other accessible data. Entering the Big Data era, researchers and students will be able to harvest much more data without direct collaboration with firms. Thus, for firms with a high degree of absorptive capacity, the market is an important way to acquire knowledge—and with the Internet, the information and knowledge needed are often just a click away.

Between the two extremes of the hierarchy and the market, we have a large grey area of networks and strategic alliances, where some measure of collaboration takes place between autonomous units, in our case between universities and firms. Compared to the markets, collaboration is more complex because it involves inter-organizational interaction and management. Thus, mutual benefit, trust, and organizational fit are essential for a successful collaboration. Rivera-Santos and Inkpen (2009) define a strategic alliance as “any agreement between two (or more) organizations to jointly carry out a task involving more interactions than a one-time arm's length contract” (Rivera-Santos and Inkpen 2009, p. 199).

Most strategic alliance research assumes that the two or more organizations involved are firms seeking to improve their competitiveness through the formation of a strategic alliance (Powell 1990; Doz and Hamel 1998; Child et al. 2005; Gomes et al. 2016). Many positive reasons for establishing firm-based strategic alliances can be and have been put forward, and despite their popularity, Kilubi and Haasis (2016) ask: “Why do not all companies engage in that kind of cooperation?” (Kilubi and Haasis 2016, p. 17). The answer is partly that the failure rate is very high (Coletti and Landoni 2018), and although there are multiple attempts from many strands of research (market research, organizational research, economic organization theory) to explain the high failure rate, there is currently no commonly accepted explanation. As this chapter deals with the collaboration between firms and universities, we shall not go deeper into the failure debate. However, we agree with Das and Teng (2000) in that as a

strategic alliance unfolds, tensions inevitably build up alongside the exploration and exploitation of potential positive synergies. As universities and firms each have a different role and a different rationale for existing and operating, tensions and synergies seem to be cousins in university-firm collaboration. We shall build on this synergy-tension/conflict dichotomy when presenting the empirical data from discussions with managers and business associations.

## **How Collaboration Is Organized over Time (Outreach)**

Universities reach the potential users of their research findings through dissemination, which may take the form of an article, a course, or a set of guidelines. From an SEU perspective, there is a need for a concept that is broader than dissemination and thus captures collaboration from the very beginning of a research or student project to its very end. Here, the concept of outreach has gained ground, with outreach involving three distinct stages: a pre-research stage, a research stage, and a post-research stage. Collaboration in the pre-research stage aims to prepare a research design that accounts for the relevance of the research and existing experiences in the research area. Collaboration in the research stage aims to ensure access to important sources and data, while in the post-research stage it is in line with the traditional dissemination stage and is aimed at bringing the findings to potential users. Collaboration across the three stages assures an optimal design, access to data, and valuable findings for dissemination. However, close collaboration also entails some risks related to influence by stakeholders—an issue we shall return to.

## **Three Perspectives on University-Business Collaboration**

As argued above, the strategic alliance is the main form of governance in the collaboration between universities and companies. This section builds on the alliance literature, which speaks of the need for strategic fit and cultural fit between partners for the alliance to be successful (Child et al. 2005). We shall add organizational fit to the agenda and speak of

“collaboration gaps,” that is, a lack of fit. To complement the “fit argument,” we will also include the theory of absorptive capacity (Cohen and Levitan 1990). This theory points to the need for an organization to be capable of identifying external knowledge and subsequently assimilating and using that knowledge within the organization. Thus, firms must be able to absorb the research-based knowledge generated by universities, and universities must similarly be able to understand managerial experiences and practices. The absorptive capacity is needed both for the transfer of knowledge and for collaboration for the development of new knowledge.

In our meetings and collaboration with managers and business associations, they spoke about the collaboration and gaps in the collaboration in multiple and fragmented ways. After reviewing the points and arguments presented, we identified three main gaps:

Gap 1: A communication/transparency gap with the parties not “seeing” each other.

Gap 2: A structural-organizational gap resulting from non-compatible organizational structures, incentive systems, rationales, and roles.

Gap 3: A value and orientation gap with the parties having conflicting values and orientations.

These three gaps will be discussed subsequently focusing on the nature, theoretical underpinning, and solution (if any) of each gap. In addition, we shall also discuss the methodological issues that arise from the close interaction between universities and firms under the SEU umbrella.

## **Collaboration from a Communication/ Transparency Perspective**

Firms, and especially small and medium enterprises (SMEs), often criticize universities for their complex and non-transparent organizational structures. They ask for a one-stop shop that can guide them to the right people. This non-awareness and non-transparency problem is a real one, although as more and more universities adopt and develop the third

mission, they do establish mechanisms such as communication programmes and organizational units for collaboration related to both students and research. Examples are matchmaking projects, website searches, and career fairs.

Theories of communication seem to offer solutions when the lack of collaboration between universities and firms is due to non-awareness and non-transparency. Using communication theory, one can identify the target group, design the message to be sent, and choose the channel with which to reach the target group. As the target group in our case—firms—is diverse, simple information campaigns that create some measure of awareness may not be enough. In fact, closing the gap in collaboration through communication requires an elaborate organization that can handle dialogues between the university and the firms and that, with reference to the classical AIDA model, can take us from Awareness to Interest, Desire, and actual Action in terms of collaboration. The long-term aim of the communication for both universities and firms is to create a culture of collaboration—preferably one that is organizationally institutionalized.

Admittedly, universities are large and complex organizations consisting of multiple small cells (groups, centres) and are thus difficult for firms to approach. However, part of the communication problem is also that despite the fact that new knowledge is important to a company's competitiveness, most firms, especially SMEs, have no person or unit devoted to communication with universities.

Turning from the target group to the message to be conveyed, the overall message is that of mutual learning, based on complementary assets and synergies. This requires deep insight into what a firm needs (what is it in for them) and what universities need. For example, when discussing internships with firms, the following set of arguments has proven to be successful in convincing firms to take on an Aalborg University student as an intern:

- Good managers realize that problems to be solved are more than the internal capacity to solve them.
- The firm benefits from access to intellectual capacity of students over a certain period and students benefit from integrating theory with prac-

tice, training in a real work environment, and, in the end, achieving credits and passing exams.

- The firm benefits from the newest theoretical perspectives.
- The firm meets potential employees.
- The firm gets a chance to influence and support management teaching.

Crucial to the effectiveness of this set of arguments is that professors are able to transform business issues into student projects and link these to the right set of perspectives and theoretical streams for students to develop useful solutions. A similar line of reasoning goes for the research—the mutuality aspect is crucial.

## **Collaboration from a Structural-Organizational Perspective**

Collaboration may be constrained (if not outright prevented) by the divergent structures of universities and firms. As mentioned, a distinction is made between strategic and cultural fit (Child et al. 2005). We add a structural-organizational fit. Furthermore, the literature makes it clear that tensions in strategic alliances are unavoidable (as indicated by the many failures), begging the question of how to deal with them. Depending on the conflict perspective such tensions may be handled through the “unitary approach” or the “pluralist approach,” the difference being that of poor management in the former case while in the latter it is a question of balancing the parties’ interests and tensions (Clegg et al. 2008, p. 112). Das and Teng (2000) argue strongly for the balancing approach in the case of strategic alliances between firms. Given the diverse roles and values at play in a university-firm collaboration, there is no reason to believe that a tension perspective and a balancing approach should not also be the better road to foster understanding and further collaboration in this situation.

For strategic fit, mutuality in learning is the essence of a strategic alliance between universities and firms, and it is achieved when universities and firms are complementary in their assets and capabilities and are able to derive synergy from collaboration. Both universities and firms must be

able to grow from the collaboration—universities grow in terms of research position and attractiveness to students while firms grow in terms of market share, profit, and innovation.

The mutuality criteria narrow the scope of collaboration. If a distinction is made between basic research, development projects, and consultancies, firms may not learn much from basic research and universities may not learn much from consultancy if the latter is defined as the dissemination of existing knowledge (although they may of course benefit financially). This leaves a collaboration space that primarily surrounds development projects. Such development projects have a measure of uncertainty, but in general, they provide solutions for firms and empirical data and insights for researchers, who can then reflect upon and use those insights for more basic research.

At the organizational level, the governance of Danish universities seeks out the employer perspective in various ways. An employer heads the university board and the majority of the board members are from outside the university; curriculum development involves employer panels that are composed of people from relevant firms and organizations; and external examiners (employers and scholars) take part in a number of exams. Through these channels, employers have the means to exercise a sizeable influence on the universities and promote a collaboration agenda.

Despite these opportunities to take part in university governance, employers experience other organizational gaps when collaborating with universities. First, universities generally have a flatter organization than firms and researchers have some autonomy related to research topics and methods. It would be difficult to “force” researchers into collaboration. This being the case, proposals for collaboration are often initiated at a lower level in the firm, where knowledgeable people from the company meet researchers and vice versa. This is the case even if we see a clear trend towards more management layers in Danish universities. Second, the incentive systems are different with monetary incentives playing a larger role in a firm while status in the academic world has priority in a university. Third, the promotion system is different. In the Danish university system, most advancements take place through competition, while in firms, employees may be called to the office and offered an advancement. Fourth, while universities—challenged with



the third mission—increasingly establish organizational units and projects for collaboration, firms may not have a unit or section within, for example, their HR department that is set up to handle knowledge collaboration with universities. Many firms, especially SMEs, do not have an HR unit and decisions about collaboration rest with the CEO or individual employees with an interest in collaboration. Fifth, attitudes towards risk differ. Researchers work in a world of risk. It is their job to formulate new ideas and try them out. There is no shame in failing. In fact, failing is the wrong word, because the knowledge from an unconfirmed hypothesis is as valuable as that from a confirmed one. Firms, on the other hand, have a perspective that is closer to a zero-error policy and view failure, although it may have some learning value, as being similar to a loss of competitiveness.

Finally, there is a mobility gap (short- and long-term) caused by some of the issues mentioned above, but also a feeling of “liability of outsider-ship” and “liability of foreignness” (Johanson and Vahlne 2009) due to difference in culture, rationale, and agenda. An exception is the so-called industrial PhD programme, which many students and firms prefer because of the synergy between practice and theory. Furthermore, referring to the Triple Helix model, the synergy is to be found through the interplay and collaboration between two rationales—not through a merger. Even if mobility is low, collaboration may still be high. For students, mobility is higher in universities that have a formal internship programme. Similarly, some firms, especially larger ones, have a formal internship programme and may even have a graduate programme.

## **Collaboration from a Conflictual Value and Interest Perspective**

The third perspective focuses on the situation in which the differences in roles, values, and orientations between universities and firms give rise to conflict, thus preventing collaboration. It is not a simple question of “fit,” but rather a deep question of “organizational DNA.” In science, we speak of a profound conflict in terms of competing paradigms. From a

university-firm perspective, we conceptualize the conflict at three levels: system, ethical, and orientation.

At the *system* level, firms may be seen as agents of exploitation within a capitalist system and researchers should not collaborate with these agents and thereby help them to be more efficient in their exploitation. This view is resonant of the anti-capitalist/pro-Marxist agenda of the 1960s and 1970s, when much research was aimed at supporting labour in its fight against being exploited, and business schools and business research were considered the “action research wing of the capitalist firm” (Sørensen and Rasmussen 1980). The revolutionary agenda still exists, but now mostly embedded in critical research related to, for example, globalization and the behaviour of multinational companies. This critical research stream is gaining ground concomitantly with the adoption of a broader stakeholder view by multinational companies. This change opens up avenues for critical research in collaboration with firms and business associations. Even if firms do not want to collaborate directly, the information sources available online are so many and diverse that it may be possible to conduct critical research without direct collaboration with firms.

At the *ethical* level, conflicts between universities and firms arise due to unethical behaviour on the part of one or both parties. The ethical standards that firms may violate are not embedded in the capitalist system. Ethical standards are instead socially determined and some of them are legally founded. To operate in a market, firms have to earn legitimacy from key stakeholders (Rana and Sørensen 2020). Ethically, it is not enough to satisfy the shareholders and it is often not enough to comply with the law. To achieve a legitimacy level beyond the law, firms may formulate a corporate social responsibility (CSR) policy. At present, some of the key areas identified as unethical relate to tax evasion, whitewashing, corruption, and greenwashing. Researchers have a responsibility to contribute to the societal discourse and in this case, through critical studies, contribute to revealing unethical firms. However, it is not likely that unethical firms would willingly subject themselves to such study. Business associations may collaborate as they have an interest in upholding the legitimacy level of their industry, and other stakeholders may have an interest in having accurate facts on unethical behaviour.

Similarly, universities must behave ethically and implement measures that ensure ethical teaching and research behaviour, including rules for enrolment, grading, plagiarism, research assessment, research methodology. They must also have systems for handling potential unethical behaviour. Recently, however, cases have appeared showing that individual researchers do get away with unethical behaviour and that universities' systems for ensuring ethical behaviour and adherence to scientific norms have weaknesses. In particular, for university-firm collaborative projects, it is essential to ensure impartiality and independence in the data collection, analysis, and conclusions in the midst of close collaboration. In case firms also have a financial stake in the project, to keep and ensure impartiality and independence, separate contracts may be necessary, stipulating the role of the firm in each stage of the research process.

At the *orientation* level, the different interests of firms and researchers lead to several areas of potential conflict. We shall briefly mention a few of these:

- General knowledge versus firm-specific solutions
- Short-term versus long-term orientation
- Theoretical and critical insights versus conforming solutions
- Abstract theoretical reflections versus concrete experiences

It is easy to see the potential dilemmas in these four areas. For instance, small firms with low absorptive capacity will be especially interested in the solution that is embedded in their own practices and experiences, and they may not consider methodological and theoretical reflections to be important. From a research point of view, however, methodological rigour and theoretical reflection are paramount, since that is how the solution is derived. Firms with a high absorptive capacity, on the other hand, may be interested in reading the theoretical reflections and how the data were collected and analysed. After all, a theory is a way of thinking about social reality, and if a new theory/way of thinking underpins the solution, firms may be interested in understanding that theory. Evidence of this is the rather comprehensive collaboration that Aalborg University has with firms, whereby students have to identify problems, use theory to reflect on the problems, and develop solutions. Firms are eager to take part in such student projects, including internships.

## Collaboration from a Methodological Perspective

Close collaboration between universities and firms has some positive and negative methodological implications related to the research process—design of the study, data collection, analysis, and dissemination of the findings. Close collaboration implies interaction between firms and universities across the three research stages: pre-research stage, research stage, and post-research stage. This interaction ensures good design of the study and access to and mutual sharing of data and information.

However, close collaboration between firms and universities entails a risk of influencing the research process and its findings. To ensure impartiality and independence, it is essential to clearly describe the collaborative arrangement and process and even to prepare guidelines to ensure that research and student projects are independent of any stakes. The intensive interaction will tend to build a shared understanding and, as it is shared and thus common, no one may reflect critically upon it. Within qualitative research, guidelines for good research exist and they must be adhered to (e.g., Neergaard and Ulhøi 2007), but it may be necessary for the university to develop more detailed guidelines that adhere to the special collaborative models used by the university. In a similar way, firms also need to have guidelines for access to people and data, including confidentiality rules to assure that it is possible for researchers to reach valid findings. To ensure critical reflection under conditions of intensive interaction, the PBL model works with “supervisors” at both university and firm levels. One of the roles of these supervisors is to raise questions and ensure that the information received is not taken for granted but is reflected upon critically. Similarly, for research, cases have shown that it is not enough to have a general quality control person within the university, who takes part in the collaborative project, but there must also be specific quality monitoring by an outside person or body to ensure impartiality.

On the positive side, close collaboration makes it possible to collect data using all five senses. “Observation” as a research methodology is becoming an increasingly popular mode of data collection (Bølling 2007), but the other senses may also be used and data from them

combined to obtain triangulated experiential data. However, close collaboration requires that each party has some measure of absorptive capacity and thus the ability to understand, assimilate, and use the information and knowledge from the other party. Researchers create concepts and conceptual frameworks while firms develop “best practices” and, as Barnes (2012) showed in the case of strategic alliances, the terms and their meaning can be wide apart, making communication difficult.

Another methodological issue is related to generalizability of the collaborative research. If a researcher/student collaborates with only one firm, the findings are of value to this specific firm. Other firms may find value in the findings by mirroring themselves in the findings and researchers may use the findings as explorative and use them to build larger studies. However, case study researchers (Yin 2009) argue that generalizations are possible from a multi-case study.

Finally, dissemination of the findings in the form of publishing may also present a methodological challenge for collaborative projects. Dissemination is important for researchers, but firms may not want the findings to be revealed to competitors and others. This conflict may be resolved by anonymizing the data and names, but this may not be enough, and the collaboration may then fall apart.

## Conclusion

This study may have perhaps not fully complied with its title, which indicates that firms’ collaboration with universities will be considered from an employer perspective. The perspective has been a more balanced one, focusing on the collaboration between universities and firms from the point of view of capturing the associated synergy and mutual benefits. This perspective was inevitable, as the dominant mode, governing the collaboration between universities and firms, is the strategic alliance, and a strategic alliance cannot be established without mutual trust and benefit. Equally inevitable is the fact that strategic alliances come complete with potential tensions and conflicts. This synergy-tensions/conflict dichotomy takes centre stage in this chapter.

The chapter builds on the PBL model as originally developed and practised by Aalborg University and extends the model into what is conceptualized as the socially engaged university (SEU). The core of the SEU model comprises the interaction of and the collaboration between researchers, students, and firms (Fig. 9.1). The SEU is perceived as a learning space where mutual learning is derived from capturing the synergy from the interplay and integration of science-based knowledge and experience-based knowledge (Fig. 9.3). The SEU pays much attention to social experience and its special characteristics and presents a typology for experiential knowledge (Table 9.1). Within the SEU framework, this chapter discusses the basic nature of the firm-university collaboration using the market-alliance-hierarchy framework and thereby finds the strategic alliance to be the main mode governing the collaboration.

Based on the literature and discussions with managers and business associations, three collaboration gaps were identified: information-communication gap; structural-organization gap; and gap related to divergent values and orientations. In the first case, the firms and universities want to collaborate, but they are not visible to each other. Forums on communication and collaboration may help close the gap. In the second case, a set of incompatible structures and mechanisms makes collaboration difficult and full of tension, calling for managerial flexibility and new organizational structures. In the third case, the collaborators' values and interests are different, which may imply that one or both of the parties are not interested in collaboration. Finally, methodologically issues related to close collaboration are discussed, including the use of all five senses in data collection and impartiality and independence.

The case of an actual firm is used to discuss the collaboration gaps. The collaboration profile (Table 9.2) shows that the case company concentrates on student collaboration and does not as of now have a comprehensive set of collaborative activities. However, as the company is interested in enhancing and formalizing the collaboration, a Memorandum of Understanding (MoU) was prepared to provide a framework for future collaboration. The lessons learned from this case is that firms are interested in collaboration with knowledge institutions if mutual benefit can be achieved and a non-conflictual collaboration mode be defined and firms prefer an incremental approach to developing the collaboration. To

achieve benefits, it is also clear that firms need to formally anchor the collaboration with knowledge institutions in the organization and formulate an underpinning policy.

Overall, the study indicates that universities and firms generate two different types of knowledge, and integration of both is necessary for social development. It also indicates that there is much room for collaboration, but there are also boundaries to it. These boundaries exist both as barriers that need to be overcome and as conflictual values that make direct collaboration less feasible. However, in the end, a lack of collaboration within the SEU frame is primarily due to managerial deficiency, although value boundaries exist as well.

To achieve the socially engaged university, more research and more experimentation are needed in relation both to the SEU concept itself and to its specific aspects and components. In fact, the development of the SEU will be faster if research activities go hand-in-hand with practical experiments. There is, in particular, a need for more research on the concept of experience and its synergy with science-based knowledge, including how the five human senses can be used for methodological data collection and triangulation. There is also a need for research on how we uphold the classical virtues of universities in the midst of intensive and deep collaboration with stakeholders, including how researchers can maintain independence and how they can use cases as a basis of reflection and development of more general theories. Finally, we need more research and experiments related to the three collaboration gaps, in particular in relation to the third gap of conflicting values and orientations.

In terms of policy, “bestowing” the third mission on universities was and is a political act. Politicians want value for money. As the collaboration interface between universities and stakeholders is highly complex and multifaceted, direct regulation would be challenging. A better way forward would be to facilitate instruments that deepen the integration of research-based knowledge and experiential knowledge.

### Vignette 9.2: The Employer Perspective on Firm-University Collaboration: The Case of Mekoprint A/S

To illustrate and discuss university-firm collaboration in concrete terms, we present the case of an actual company, Mekoprint. The general purpose of the case is twofold: (1) demonstrate the scope of potential collaboration through a list of potential interfaces synergetic or conflictual in nature; (2) propose a flexible collaboration mode taking the form of a general Memorandum of Understanding between the university and the firm followed by annual activity plans. The case was chosen, not because of a highly comprehensive collaborative profile, but because Mekoprint is interested in issues related to deeper collaboration in the future. Data have been collected at three levels: governance of universities, educational and research-related activities, and sponsorships.

#### *Brief history and profile of Mekoprint*

Mekoprint ([www.mekoprint.com](http://www.mekoprint.com)) was established in 1954. It has its head office in Støvring on the outskirts of Aalborg, the regional capital. It is a family-owned firm with the CEO being the third generation to manage Mekoprint. Mekoprint is a high-tech company with four divisions producing printed electronics, chemigraphics, mechanics in aluminium, and cables and wires. Mekoprint produces by order only and thus works closely (and long term) with its customers; that is, development tasks are an integral part of many orders. The CEO has a business background. The father of the CEO, who is still active in the company, has an engineering background and is in charge of technological development. In addition, a brother of the CEO is on specific assignments, but will soon take up a position in the subsidiary office in Hong Kong. Today, Mekoprint consists of four divisions and employs around 500 people. Labour-intensive production is located in China under strategic alliances, which are handled by the subsidiary office in Hong Kong. Production is also located in a subsidiary in Poland as well as in three locations in and around Støvring, Denmark. Mekoprint is high-technology in terms of both the products they produce and the process they use. It produces according to orders, and most orders require some measure of development and design in close collaboration with customers. The four divisions are relatively autonomous but are supported by common offices for finance and general administration as well as a recently established HR office.

#### *Participation in university governance*

Firms may take part in governance in four areas. These areas range from board level to advisory groups related to curricula and include a recently established advisory organ to the social science faculty. Presently, Mekoprint does not take part in the governance of Aalborg University.

#### *Educational interfaces*

(continued)



**Vignette 9.2** (continued)

Mekoprint is active in teaching-related activities and is especially engaged with activities of mutual benefit to students and firms. No Mekoprint employee has a part-time job as an external lecturer and only occasionally have Mekoprint employees served as guest speakers at an educational institution. Similarly, Mekoprint receives few requests for “simple” company visits to provide students with a glimpse of the “practice.” There is no Mekoprint policy against these activities, but neither are these activities promoted by the company. The teaching activities in which Mekoprint is very active are those that involve students using Mekoprint as a case study in business practices and problems, as well as those that open doors for student projects and internships. For instance, Mekoprint took part in a so-called interactive case, where university staff compiled a case set within the company and groups of students were challenged with problem identification, analysis, and solution development. The case was interactive because students paid a visit to the firm to talk to managers, visited the production facilities, and had email access to the managers during the course. Mekoprint did not participate in the formal exam, but it assessed the projects and provided feedback at a special session in which the best project received a prize. It should be mentioned that the assessment of the projects by professors was with some exceptions similar to the assessment by Mekoprint. Mekoprint has also hosted a number of students as interns for a semester or more, challenging the students to come up with solutions to the company’s problems. In some cases, the students receive a student salary as they prepare their project/thesis.

*Research interfaces*

In contrast to its educational activities, Mekoprint is largely not engaged in collaborative research. They have taken part in an industrial PhD within the engineering field and they have collaborated with an engineering university on a solar cells/panels project that was aligned with their technological printing capability. However, they opted for an early exit from the project to concentrate on customer-driven development rather than technology-driven projects. Mekoprint does take part in research by responding to questionnaires from researchers. Although no exact figure is available, Mekoprint receives survey questionnaires every week from universities, business associations, and other institutions. It is up to the individual employee who receives the questionnaire to decide whether to respond. Mekoprint rarely takes part in action-oriented research projects, whereby researchers collaborate with a group of companies to solve company problems at the same time as the project generates new knowledge. They also rarely take part in business development projects launched by the

*(continued)*

**Vignette 9.2** (continued)

various business development organizations in the region. In general, Mekoprint prefers firm-specific collaboration rather than collective projects with other firms.

*Dissemination and transfer of knowledge*

When it comes to off-the-job training and educational programmes for employees, Mekoprint takes part in single events (e.g., seminars, workshops) as well as courses and certificate-bearing programmes. For example, they have a framework contract with Industriens Kompetence & Uddannelses Fond (The Industrial Competence & Training Fund).

*Job-related interfaces*

Mekoprint does occasionally take part in career fairs in which students have a chance to learn about job opportunities in firms. It has also occasionally established jobs for students relevant to their studies. In one instance, three students combined their thesis writing with student jobs at Mekoprint. Afterwards, one of the three students was hired on a permanent basis. In this way, a student's final year of study can function as the first year of a corporate training programme (although Mekoprint does not formally run such a programme). Mekoprint does not often hire recent graduates, as such students have too little experience and domain knowledge and it takes two to three years to train them in the customer-related mode of operations at Mekoprint. So far, Mekoprint does not have a graduate programme but is considering one, which would be combined with internships.

*Organization and financing of collaboration with knowledge institutions*

Collaboration with knowledge institutions is not an integral part of the mission statement nor the vision of Mekoprint. The focus of these statements is on the customers and employees. Within the organization, decisions on collaboration with knowledge institutions rest with the HR manager and CEO in conjunction with those who will be involved in the collaboration. The marketing unit seems to be more proactively looking for student collaboration. A newly established HR unit is also benefitting from student interns. The HR unit will in the future be responsible for the collaboration with knowledge institutions. In terms of finance, the annual budget contains no budget line for collaboration with knowledge institutions. As the main collaborative activities are related to students and their projects and thus are not in any way financially burdensome, it is only natural that financial decisions are taken on an ad hoc basis.

*The boundary of collaboration*

In general, Mekoprint is ready to engage with universities if they gain from such collaboration in terms of becoming more competitive, more legitimate, and a better workplace. When it comes to their interest in individual research projects and students, they look for those that are

(continued)

**Vignette 9.2** (continued)

constructive and solution-oriented but also critical, since they are aware that critique will help them reflect deeper and better on what they do and should do. This raises the question of where the boundaries of useful collaboration lie. It is clear that the boundary may be reached quickly if students and researchers behave unprofessionally in their communications with the firm and behaviour vis-à-vis employees. Thus, the boundary discussion has a professional dimension—although a university's definition of professionalism may differ from a firm's definition. Aside from issues of professionalism, there may be subjects that touch on the fundamental culture of a company that are sensitive to discuss. However, Mekoprint thinks that raising issues related to its deep organizational culture is welcome so long as the critique is soberly presented and relevant. Raising ethical questions is also welcome. In this context, research and student projects could have similar effects to a whistle-blower within the company. In general, collaboration should not just provide incremental innovation but also radical innovation, even if such innovation by definition requires a change in mindset, perhaps new people, and a transformation of the organization.

*Case summary and the way forward*

In summary, Mekoprint does not take part in the governance of knowledge institutions but has a number of collaborative interfaces with them, notably related to education and student projects where there is potential for mutual learning for students and the firm. In general, the company's collaboration with knowledge institutions can be characterized as sporadic and reactive because it is mainly undertaken in response to the prompting of the knowledge institutions and not based on the company's own policy-driven initiatives. Mekoprint's business model is based on close and long-term relationships with customers, and a key feature of these relationships is the competence to develop and innovate according to the needs of customers. Mekoprint innovates "on the go," so to speak, and not through small and large research/development projects within an R&D department. As development/innovation is part of operations, Mekoprint finds it difficult to establish research collaboration with knowledge institutions as well as employ new graduates who lack the years of experience required to interface with customers. In its plans for the future, Mekoprint sees a need to enhance collaboration with knowledge institutions. They prefer to take a more formalized approach with a Memorandum of Understanding (MoU) framing the collaboration. They also want the collaboration to be incremental in nature, starting with student collaboration and gradually moving into research collaboration. To that end, a MoU for collaboration with

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**Vignette 9.2** (continued)

Aalborg University has been drafted and agreed. A small steering committee will implement and manage the collaboration, and a development committee will be responsible for identifying and managing collaborative activities. In addition, Mekoprint is interested in engaging in the governance bodies of the university. In particular, they would like to act as an external examiner or have a staff member serve as a part-time teacher, as these activities will provide them with a platform for more direct contact with the university's research agenda and educational programmes. In brief, the lessons learned from the dialogue with Mekoprint A/S are:

- Firms are interested in collaboration if mutual benefit can be achieved.
- Even if some areas may be potentially conflictual, in many cases the conflicts can be encapsulated by the choice of collaboration mode.
- Firms prefer an incremental approach to the collaboration, often starting with activities with a good benefit-cost (resource) ratio. The more the benefit the easier it is for firms to allocate funding to an activity.
- Firms need to have an explicit policy and a backing organization for the collaboration with knowledge institutions to achieve the full benefit from such collaboration.

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# 10

## Stakeholder Politics and PBL Curriculum: A Learner's Perspective

Maria Kriegsbaum and Bernadett Deák

### Introduction

Completing academic studies within a PBL environment has come a long way since the 1960s when it was first applied to medical education (Kek et al. 2017). Even though its actual effectiveness on business-related graduates' work performance is continuously under discussion, the overall nature of the innovative learning approach firmly differs from conventional study environments. By researching the process of knowledge acquisition and knowledge application of business students of two educational institutions—one PBL-driven and one traditionally systemized—the comparative study of Bossche et al. strengthened the PBL in 2000. Students of the PBL institute show not only positive results on acquired knowledge but also a significant tendency to score higher at

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certain skills over time (Van den Bossche et al. 2002). The research of Son and Sickle (1993) has addressed the usefulness of PBL education and encourages educators to reconsider instructions from the perspectives of cognitive psychological research and theory (Son and Sickle 1993). The case study of Dochy et al. has investigated the perception of students concerning the PBL environment and concluded that even though students see PBL as an effective tool to pursue knowledge, significant differences have been spotted in terms of its specific design variables (Dochy et al. 2005).

Research studies of Biggs and Prosser and Trigwell (1999) suggest that the overall process of learning and teaching within higher education is largely influenced by earlier experiences of learning and teaching as well as their contexts. The perception of study context affects the quality of learning outcome, leading to subjective understandings. Therefore, despite the study environment, learning outcomes and perception of assessments and working procedures can differ significantly among students. As a result, students are likely to approach learning tasks in a different manner (Prosser and Trigwell 1999).

To further examine students' perception of the PBL environment, in the following chapter aspects of two recent MSc graduates will be discussed. Their PBL experiences were gained within the field of International Business Economics. To understand their perceptions information will be provided on their cultural background, previous study-related experiences and current work position.

## Authors' Reflections

### Maria Kriegsbaum

After graduating with a Master's degree in International Business Economics in 2017, I was employed at Demant A/S as a business consultant. Specifically, my role is within IT where I am a part of a global business transformation programme, which spans across the business' markets with retail, wholesale and production. My daily work covers a diverse

range of tasks, from technical aspects such as facilitating software development to business aspects enhancing the local business processes in the countries and preparing them for the new business solution. To accomplish a successful transition to the new solution, I negotiate with stakeholders on all levels of the organization and ensure that the solution meets the direction of the stakeholders. A key element for my activities to be a success is good stakeholder and change management.

On a typical working day, I connect with colleagues from around the globe. Throughout my studies, it has always been a wish to interact and get acquainted with different cultures as part of my work, as this is one of my most interesting and enhancing ways of learning. As part of my education at Aalborg University, I sought to incorporate as many international experiences as possible. My first longer stay abroad was during my Bachelor's degree in Business Administration and Economics where I decided to do my fourth semester at the University of Melbourne in Australia. From here, I caught the travel bug and decided to do a Master's degree in International Business Economics during which I completed my ninth semester at a private company in Romania and my final semester in the Trade Council at the Embassy of Denmark in Indonesia. These experiences have functioned as great eye-openers and have helped me in navigating between various cultures. Besides the international experiences, it is equally important to recognize the importance of pragmatic involvement—personal experience—as a means to understand in which direction I see and would like to see myself going.

My first experience working within IT was as a student assistant at the IT department at Aalborg University. The majority of my time was spent on assisting the implementation of a new digitalization model which IT projects within state institutions should follow. This employment was my first practical acquaintance with working agilely.

Reflecting back, the model in which a theoretical foundation is combined with various pragmatic and international experiences has suited me very well, as it has allowed me to critically reflect about the theory taught when taking on real-life projects, but reflect equally critically about real-life processes when being equipped with an updated toolbox. One important lesson stems from the fundamentals of being project-oriented; that is, each project in PBL follows a process until the exam is finalized after

which a new project is commenced. Having been involved with projects repeatedly has been very beneficial in my current job where we repeat the process of deploying the ERP system every time we arrive in a new country. The project orientation in PBL has advanced my understanding of building a template that the project should aim to follow and continuously strengthen the template. Subsequently after every project, the template should optimally be enhanced incorporating lessons from the project. Hopefully, this will mean that for every new project the template improves. Naturally, one must always be alert to update the template in accordance with changes to external influences to make sure that the template remains contemporary.

### **Bernadett Deak**

After completing my secondary school studies in Budapest, I decided to continue my education abroad; thus I came to Denmark and started completing an Academic Profession degree at the University College of Northern Denmark (UCN) within the field of Service, Hospitality and Tourism Management. UCN was the first Danish educational institution where I experienced PBL. I remember one of the biggest differences was the 'flat hierarchy' between professors and students. With many of my international colleagues, we had difficulty in expressing our thoughts directly in class, since we were not used to interactive classes. I even felt impolite and offensive when I contradicted the professor and I was afraid of being judged for my concepts. Transitioning from my private Hungarian high school where it was even required to stand up every single time a teacher entered the class to an institution where it is okay not to agree with the professors' perspectives was challenging in the beginning. However, I quickly realized the positive effects including reduced level of stress and increased focus on what is really meaningful for my education and self-development.

After completing my studies at UCN, since I could not really see myself in the Tourism industry, I continued my education at Aalborg University on the top-up programme of Economics and Business Administration, where I realized that my interest is oriented towards the

field of technological innovations. Together with two of my former colleagues we wrote our BSc thesis based on the case of Tesla Motors with a specific focus on the interrelationship between the Regulative and Innovation Systems through Institutional Pillars. After completing my BSc studies, I continued my MSc education within the same field of Economics and Business Administration and specialized in International Business Economics.

I obtained my Master's degree in 2018 in International Business Economics during which I spent one year at the Canadian partner university of AAU—Laval University in Québec. Thanks to the degree of freedom in the PBL study structure of AAU it was possible to complete the third semester at the Canadian partner, Laval University, where PBL learning is also an essential part of the course outline. Despite intense competition, I was offered a research internship at Laval University for the following semester during which I conducted research on financial technological innovations which served as a basis for my MSc thesis; the core theme was the diffusion of Fintech innovations and their impact on the modern financial ecosystem.

Currently I am supporting operational activities at Nordic Startup Awards (NSA), as well as managing product and marketing responsibilities at a recently founded Danish Fintech start-up, called Plata. The purpose of NSA is to embrace technological innovation and to support the start-up ecosystem within Nordic countries, including Denmark, Sweden, Norway, Finland and Iceland. As an operational manager I am required to coordinate between our Nordic Ambassadors, Advisors and Jury members, as well as to constantly manage international projects together with our Central European headquarters. Therefore, on a daily basis I am required to master time management, to be a flexible team player and to properly communicate and allocate tasks in our organization.

Parallel to NSA, since I have a genuine interest towards financial technology, I have also been contributing to a recent peer-to-peer lending Fintech start-up—Plata—based in Copenhagen Fintech Lab. Besides building the Go2Market strategy of Plata, I have also been developing internal and external communications of the organization as well as presenting my change initiatives through PowerPoint to our team. Being in a start-up environment, taking initiatives and prioritizing between areas

to develop is key to success. However, looking back at my years within a PBL environment, I am certain that it triggered core skills to maximize my working capacity in my present position.

## Aalborg PBL Model from Learner Perspective

In the following section, the five main objectives of the Aalborg PBL Model will be discussed and commented on to provide insight into learners' perspectives. The Aalborg University website states that students are required to acquire knowledge and skills independently (Aalborg University 2019). As a result, the level of students' *learning freedom* is much higher compared to a conventional educational environment. Active participation during lectures has been a core concept during which asking questions based on students' personal interest has been largely supported. It has become clear that the reason behind such teaching and learning method motivates students to raise their critical thinking ability, and create an open environment where students with similar fields of interest can connect. The PBL environment heavily supports project work where coordination between group members develops leadership skills through delegation, increases a solution-oriented business mindset and enhances vision on individual strengths and weaknesses. It allows space to examine contemporary issues of the modern world; therefore, it helps students to build solid theoretical knowledge on up-to-date phenomena. Here is a testimonial from one of our colleagues, a 2018 MSc graduate: "During my academic years I had a personal interest in the world of Banks and Financial Technology. Even though, lectures on Technology and Big Data were part of 2nd semester seminars, no in-depth exam or compulsory project work has been related to that field. Thanks to independence concerning Master Thesis topic, research on Fintech ecosystem and Canadian-based Fintech start-ups and Financial Institutions has been conducted. Another advantage related to freedom of choice could be experienced in 3rd semester, when students could freely decide whether to start an internship, participate in an exchange semester or continue with lectures provided by Aalborg University. By not having severe restrictions on internship provider companies, many of

my fellow students were able to write their internship projects on their preferred topics within chosen sectors. I believe freedom of choice can largely contribute to increased motivation, raised level of responsibility and leads to the creation of meaningful and up-to-date research content”.

On the other hand, several students—especially those who obtained their BSc diploma from non-PBL Institutions—were *struggling to manage their overall freedom* at AAU. Even though their academic knowledge had been more than satisfactory in the beginning of their studies, their level of engagement in course participation tended to decrease over time due to *lack of individual preparation* (e.g. reading relevant compulsory materials). *Due to lack of experience on how to study without being under pressure* or being close to significant deadlines, it is common to underestimate the longer time needed for project work. Therefore, the grade averages of international students in the first semester were likely to be lower in comparison to second or third semesters, as another 2018 MSc graduate explained: “During our Bachelor program, many of us underestimated self-preparation and reading for some of the classes, which resulted in lower performance, mainly when it came to Financial Accounting or Corporate Finance. However, it was almost impossible to follow class discussions without preparing calculations in advance”.

The second objective of the Aalborg PBL Model is to *incentivize students to work analytically and according to interdisciplinary methods* (Aalborg University 2019). The reason is to increase the level of understanding by empowering the ability to develop a critical mindset, and improve the ability to spot, define and redefine problems. Focusing on details as well as coordinating between different course materials are positive results of a PBL environment, which helps student to learn to reason as well as how to perceive business as a whole.

The third objective of the Aalborg PBL Model focuses on the *creation of a learning environment where students can cooperate with the business community as well as strengthen external relations* (Aalborg University 2019). It provides students with the opportunity to experience first-hand the impact of their studies through case competitions and company visits. By having the chance to solve up-to-date challenges of companies, students gain an insight into the business mindset of company representatives and benefit from contacts and networks after graduation. However,

there is still room for improvement when it comes to coordination between university partners of Aalborg University concerning the accreditation system of the university, as argued by another 2018 MSc graduate: “It is understandable that ECTS point system of Denmark differs from Canadian accreditation system. However, I was required to take five classes during my exchange semester to obtain 30 ECTS points at Aalborg University, even though Laval University allows a maximum of four classes per semester. And there is a reason behind it. All of my Canadian modules were based on project works with at least 3–4 student/group. Therefore, the completion of five modules within one semester simply made it impossible to attend all the group meetings”.

Another core PBL objective environment is to *develop teamwork abilities* (Aalborg University 2019). There are several advantages of working in a team. However, difficulties can arise during group work, for students who lack preliminary group work experience and adaptation skills. It leads to *unfair participation in project work, the appearance of ‘freeriders’, less effective management skills and decreased levels of interpersonal skills*. Since it results in a stressful and chaotic study environment, students’ performance under pressure tends to decrease and hinders their ability to submit projects on time. As a result, students who have negative group work experience but have a competitive mindset and aim for quality projects are likely to choose individually written projects to eliminate chances of non-professional group workflows. To eliminate such flaws of the PBL system, personality tests could be integrated on a deeper level when it comes to group formation. Measuring the level of ambition as well as specific interest field of students needs to be emphasized more since a significant part of the academic knowledge of students is gained through project work within a PBL environment.

Lastly, the *PBL environment prepares students for the labour market* (Aalborg University 2019). Students are continuously required to reflect upon their individual learning experience as part of their semester projects to increase the consciousness of their strengths and weaknesses and how course material can contribute to their personal development. However, it is hard to monitor ‘truth’ from the perspective of professors and it can lead to overexaggerating or false statements in order to satisfy study requirements. An alternative solution in order to increase the actual

insights of professors into students' individual contributions is to initiate individual reflections parallel to group reflections either through face-to-face meetings or through the creation of an online platform.

## **Case Study Examples of MSc International Business Economics Programme, 2016–2017**

To improve understanding of the PBL learning process of MSc graduates, their experience will be discussed based on case study examples of International Business courses. As part of the module “Theory of Internationalization of Companies Within Institutional Contexts”, students were required to apply methods and theories covered in the lectures to the comprehensive case of Mekoprint A/S, a family-owned Danish company, focusing on the creation of customized solutions for companies in the industrial, electronics, medical, transportation, machine and energy sectors (IBE Department of Business and Management 2016a). To obtain a concise understanding, students received a written company description, and the opportunity to question company representatives during a company visit. Students, therefore, could shape their individual perceptions of the company and obtain necessary information based on their specific orientations to develop solutions. The purpose of the research technique—“Critical Incident Technique”—was to acquire knowledge of the historical international development of the company based on managerial perceptions. Thus, students could develop creative thinking to examine the company as well as to advise on future strategic implementations. Students were required to develop answers to five research questions, three of which were strongly related to theories taught/learned in the module, for example, “Define the concept of foreign market entry mode and describe and analyse the entry modes used by Mekoprint, including the motives and reasons behind choosing these entry modes” (IBE Department of Business and Management 2016b). While the answers for the questions were more objective, the diverse thinking of students was embraced by requiring solutions on how Mekoprint could expand to new markets or customers in a cost-effective way. As a result of



the cultural and educational diversity of the class, final solutions differed and resulted in a plethora of ideas, which were evaluated and rewarded by the managerial level of Mekoprint. As part of the overall report on the case study, students were asked to discuss the work process of their group. Vignette 10.1 serves as an example of how IBE students have reflected upon their learning processes (Deak et al. 2016).

### **Vignette 10.1: Students' Reflections on Their PBL Learning Process: Mekoprint Case**

"As step zero we agreed basic criteria to ease cooperation and equal contribution to our project. Among others, we agreed upon respect towards different – sometimes contradictory – opinions and tolerance in order to exclude tense atmosphere at group meetings. Each of us has different cultural backgrounds as we come from five different countries – Denmark, The United States, Lithuania, The Czech Republic and Hungary, thus the likelihood of different perceptions is high. Besides respect, we also agreed upon work ethics including punctuality, reliability, self-motivation and enthusiasm to be able to work on a maximum scale. We tried to ease communication by creating a private group on an online social network platform. Thanks to that, we could continuously help and inform each other about individual work processes. In the beginning, we created a time schedule to be able to progress with the project in time. This time schedule was gradually updated due to unexpected happenings. During group meetings we discussed and agreed upon the basics of each section of the project. Afterwards, we equally divided sections that we delegated for next meetings either individually or in sub-groups i.e. in pairs. The reason was to accelerate actual writing duties. However, on the following group meetings each individual written section was adjusted and developed by each group member".

By reflecting upon our work process, we have become well aware about practical outcomes of our initially defined working ethics and therefore our level of consciousness on core professional values increased individually and as a team. This could lead to enhanced and efficient group work in subsequent projects.

Similar to the case of Mekoprint, during the module called "Cross-Cultural Management and Leadership", IBE students were required to examine the interactive case of ORANA A/S—a Danish company manufacturing and selling fruit-based raw materials on the global market (IBE

Department of Business and Management 2016). In contrast to Mekoprint, no company visit was provided. Company representatives gave guest lectures, providing opportunities for students to collect additional information besides available secondary sources. To educate students on contemporary cultural issues case questions were related to the role of national and organizational culture within ORANA's decentralization strategy. To provide room for individual thinking, additional questions were asked, for example, "Critically assess the mechanisms for knowledge transfer and knowledge management that ORANA utilized in its operations in Vietnam. What are the current challenges and what would you recommend to ORANA in order to overcome these challenges?" (IBE Department of Business and Management 2016). Core learning from the case of ORANA was described by an IBE group as beneficial for students' future as their knowledge was expanded in terms of the crucial influence of culture on management and leadership of an international context, as Vignette 10.2 exemplifies (Liubartaite et al. 2016).

#### **Vignette 10.2: Students' Reflections on Their PBL Learning Process: ORANA Case**

"Concerning the topic of leadership, ORANA A/S provided us with good examples of effective leadership in an international context ... Each expatriate individual should be knowledgeable enough to be able to evolve their working progress continuously. Thus, we believe that knowledge transfer and knowledge management at ORANA A/S, has left some room for improvements. The implementation of a well-designed common IT System should not be ignored due to cultural differences. IT systems are needed for knowledge transfer, both in operational and cultural sense from which expatriates could evolve, who are playing key roles in the success of joint ventures. As effective expatriate personnel require heavy time and resource investment, the selection process should be thoroughly carried out. It is not enough to have matching skills to the certain job. A candidate needs to have the potential mind-set to adapt to the organizational culture and values and the ability to change based on the cultural circumstances. Thanks to the experience of ORANA A/S in Egypt, we have managed to understand that firms cannot generalize foreign cultures and base significant decisions on assumptions that exclude cultural perspectives".

During the second semester of the MSc in IBE programme, students were required to investigate contemporary business issues and identify relevant academic literature to address challenges within the business environment. To support solutions on practical international business decisions, application of relevant quantitative and/or qualitative methods were required. The objective of the report was to train students on how interdisciplinary course materials could contribute to empirical investigations. The group of MSc graduates for 2018 chose the insurance company Codan to examine the impact of digitalization from a business perspective. Besides primary qualitative data collection through interviews and compulsory academic theories, the group reviewed 25 articles on the concept of digitalization within the insurance industry. The purpose was to systemize impacts of digitalization on company performance in an insurance industry context. Core outcomes of the semester project are summarized under Vignette 10.3 (Kaare et al. 2017).

**Vignette 10.3: Students' Reflections on Their PBL Learning Process: Codan Case**

"Digitalization is found to have both a positive and negative impact depending on company management and decision-making. It has five main impacts: customer, internal, innovation, financially, and flexibility & agility. Additionally, the paper discovered that disruptions are still not a significant threat in the Danish insurance industry to impact strategic decision, and that companies should consider non-digital investments to support the digitalization process. Lastly, it was identified that synergies between non-digital and digital investments and processes will have a positive impact on company performance".

The previously discussed examples justify the four principles of PBL activities developed by Charlin et al. (1998). Based on their analysis, learners are active processors of information, prior knowledge is activated and new knowledge is built through the PBL method (Charlin et al. 1998). Since students were provided with the chance to collect additional information from company representatives first-hand, the creation of new knowledge on the basis of previous existing knowledge was facilitated and resulted in active information processing. However, since new

knowledge is related to existing knowledge, if students lack knowledge on core perspectives, new knowledge is unlikely to be generated. The example of the second semester project shows that students applied qualitative data collection methods over quantitative methods, which was a result of a lack of their previous knowledge on how to analyse quantitative data properly. Even though the overall quality of their report was evaluated with grade 10, their knowledge on quantitative data analysis and statistics remained the same as before due to lack of compulsory requirements to improve. Therefore, based on these experiences, it can be concluded that despite countless benefits of case studies in group projects, a part of academic materials that is related to quantitative data analysis could have been strengthened through formal learning channels over group projects. In other words, the tools required for effective data analysis need to be acquired through formal learning and teaching.

Regarding the principle according to which knowledge is acquired in a meaningful context, all the study cases provided students with the chance to add value to real businesses and it incentivized their willingness to research and apply academic theories in the business environment. However, there is a significant difference in the motivation of students between carefully designed interactive cases and individually chosen projects. Since freedom was limited in the cases of Mekoprint and ORANA, some students were primarily motivated by passing the module and less engaged in delivering meaningful projects for actual companies. This phenomenon is less likely to occur during semester project writing, since students are required to select contemporary challenges based on their interests. However, since their research is group-based—between three and six students—it is impossible to agree upon a research field that is equally satisfactory for all group members. Concerning the last principle of PBL activities, which states that learners have opportunities for elaboration and organization of knowledge, based on the previous cases, students had truly the possibility to collaborate as well as to systemize selected theories and relevant academic materials related to their projects. It must be acknowledged that there are serious challenges within a group. An easy, less painful way to deal with serious challenges is to 'kick out' a group member. Unfortunately, the processes of group formation and risk mitigation in groups do not reflect the real work environment; therefore,

the students throughout the entire study programme fail to acquire techniques for managing less engaged or poorly performing members of a group.

## Corporate Versus Student World

A problem-based learning environment can improve the competences of graduates to match needed skills for employment. *Project management and time management skills* are basic needs for employers as are *outstanding communication skills*—including *oral presentation and written skills*. It has become more common for employers to require graduates to have the *ability to take initiative* and to *make complex business decisions*. Graduates require *well-grounded and authentic academic knowledge* with an *ethical and socially responsible attitude towards work*. With increasing pressure and competitiveness among graduates, the student must consider from which channels it is possible to obtain those skills to *contribute constructively to team work*, and *critically relate to information presented*.

Usually such skills develop over time and throughout the exposure to situations that reflect work life. They can be obtained via various channels as student employments, volunteering and exchange, but an equally important channel is the study environment and method. If executed properly, the right study environment and method can be an effective means to develop and obtain these skills. PBL brings these skills into play by placing the *student in the centre of learning*, leveraging the student to become an *active partner in learning*. If the student *maintains the responsibility and motivation* required for personal and professional development, the student can acquire capabilities that are often obtained through multiple years of work experience.

Studying in a PBL environment enhances the individual's ability to structure assignments, take initiative and time manage projects and priorities. From personal experience, the ability to prioritize one's time and tasks has particularly been a key bridge in transitioning from study to work. In PBL one typically works on one bigger project whilst participating in courses that facilitate the project, but require active participation. At times, tasks take up resources to an extent where the student must

identify which to prioritize, which is the rule rather than the exception in working life. Personally, being in a study environment that involves working on multiple tasks simultaneously has provided me with a clear compass for how to orchestrate which task, and acknowledge when time is an inadequate resource, which requires the ability to re-strategize scope, approach or deadline. Having been part of a dynamic study environment where one's plate of tasks spans widely and is often full has actively developed the ability to keep a sense of perspective across a variety of tasks.

A central aspect to PBL is teamwork. Supervisors in PBL encourage the student to write projects in groups, as it fosters enriched discussions and synergies. Potential employees are evaluated, on their teamwork and on being a team player. As part of the recruitment process at my current job at Demant A/S, I was invited to a one-day assessment centre. The assessment included eight assignments—one individual and seven group assignments. This division is an interesting indicator of how ability to be part of a team is a key asset that my current employer looks for in new employees. Possessing such skills at graduation requires a study environment that not only provides the student *with academic strengths based on theoretical frameworks and concepts*, but provides the *right set of interpersonal skills too*. What PBL articulates well in *teamwork* could be described as shaping, that is, it does not change fundamental personal capabilities, but shapes ways of thinking of how an individual can work in a group and how the differences among group members' skill sets can enhance the overall group.

Alongside the positive effects of PBL on graduates' performance in real life, a significant weakness needs to be addressed. Despite PBL's pragmatic approach, the model neglected to include properly learning and teaching students how to use technical applications, for example, Microsoft Excel, SPSS, NVivo. One could argue that such matters are each student's responsibility, that is, if the student wants to enhance IT skills, the student must initiate such learning independently. Such is one of the PBL's core principles—self-governed learning. Yet it does not make the necessity of the skill less. It is worth mentioning that the skill may be more relevant to certain students than to others; if a student knows that a future job function might entail the use of such applications, the student must initiate such learning independently.

A second point worth highlighting is that both of us writing this chapter are specialized in International Business Economics, which is a degree that spans widely across business topics from accounting to marketing and, thus, does not specialize in the dedicated use of IT applications. Had we been enrolled in another degree, we might have shared another perception of the use of IT applications in PBL. Finally, how well the use of IT applications is integrated into the study does not necessarily have a direct relation to PBL. Having studied at the University of Melbourne, the same challenge was documented here; it was the student's own responsibility to advance IT application skills. Naturally, writing a project was and remains to be a means to accomplish such, but requires that the student takes on a project that falls into a category where advanced IT applications are required, as explained by one of the 2018 MSc graduates: "The use of Excel and SPSS for Financial Accounting, Corporate Finance and Statistics modules during the Bachelor program was part of the curriculum, though, due to a lack of their integration into case studies during Master program, I cannot state that I became an advanced and confident user of such IT programs. Our criticism is reinforced by the rejection of my recent application for an entry-level consulting position at KPMG in November 2018, when – as part of the recruitment process – I was required to solve a series of tasks in Excel, which I clearly failed to perform. There is a significant difference between being familiar with basic principles of IT programs and being able to properly utilize when it comes to actual challenges. Not having the ability to use data analytical programs confidently reduces the chance to get hired for several positions where MSc diploma in Economics and Business Administration is the major requirement".

Regardless of the points as to why tangible learning of IT applications may not be directly related to PBL, our recommendation to future students within PBL is to demand that professors and supervisors equip students with better opportunities for learning. An explicit suggestion is to establish forums guided by staff in which the students can discuss challenges and present exercises to each other. Even though one of PBL's key components is self-directed learning, it is important to keep in mind that academic staff is a fundamental for such to succeed. Specifically, in those cases where learning material is particularly difficult, academic staff must

prepare students accordingly and pull students in the right direction, which self-directed learning is not always sufficient in doing.

## Recommendations for Enhancing the PBL Model

Based on personal experience of MSc graduates, despite the advantages of a PBL environment, improvements are needed. Core negative characteristics and gaps were identified as:

- Potential struggles with freedom management, resulting in poor levels of individual preparation, underestimation of time periods given for project work as well as lower engagement during course attendance due to a very liberal learning environment
- Inequality between students in team engagement and potential 'freeriders'
- The process of group formation does not reflect the real work environment; therefore the students throughout the entire study programme fail to acquire techniques for managing less engaged or poorly performing members of a group
- Unfair evaluation and grading due to lack of project work transparency and lack of continuous monitoring of students' individual performance

To eliminate the identified gaps in PBL, suggestions will be discussed in the following. Raised levels of supervision and monitoring should play a significant role and have a direct impact on students' approaches towards learning as well as on students' learning outcomes. The integration of technological tools—for example, writing blogs or adding online comments on a regular basis—might be of advantage in integrating foreign students/students from non-PBL universities. Reflecting upon students' personal development is already a commonly required element of group projects. By raising the frequency of such reflections on personal development and perceptions of academic content, freedom management could



be improved, and fair evaluation could be achieved, as experienced by one of the MSc graduates through her student exchange programme: “During my stay at the Canadian University as part of Leadership classes, we were required to express our thoughts on compulsory academic materials (books and articles) via an online surface. Thus, it was possible for professors to supervise instantly if students were able to manage their time in accordance to the flow of courses. Since it was compulsory to write down several questions to fellow students related to actual study materials, knowledge could be acquired not only through reading books/articles, but also through brainstorming questions as well as answering them. Thus, Leadership class discussions and presentations became more dynamic compared to courses with no online preparations in advance”.

The usage of online learning would increase students’ engagement as a result of the technology-oriented habits of younger generations. Therefore, by taking into consideration the changing habits of students and by shaping educational methods and learning context based on their habits, increased efficiency could be achieved. Even though the integration of online-based reflections could contribute to students’ performance, such modifications require fundamental changes in the teaching habits of university professors. Proper tracking of the online contribution of students requires willingness to change on an institutional level to incentivize employees towards revolutionary changes. “Students are young and flexible enough to learn to be tolerant and adaptable to new ways of learning. It is a common observation that persistent resistance, despite the evidence of many successful examples, comes largely from teachers” (Kwan 2000). By being aware of upcoming resistance and criticism towards innovation from the side of concerned players, preliminary training sessions could be designed with the purpose of increase the level of understanding of educators.

## Conclusion

Reflecting on a yearlong journey with PBL, it is obvious that the model has contributed a vast amount of learnings spanning from a theoretical to a pragmatic point of view. For the writers of this chapter, PBL has

manifested its positive effects in its ability to bridge the gap between student and working life. Current employers of both writers of this chapter have been interested in the real-life case studies completed and not least the internships and exchanges done abroad. It is not merely the sound of PBL that is promising for employers, but the potential graduate you might have if the student is truly able to leverage the components that PBL is constructed of. Unfortunately, often heard examples witness a weak link between institutional learning and real-life experiences, which threatens to reduce the relevance of institutional learning. Luckily, our experience witnesses the opposite. The inherent focus on self-directed learning has encouraged both of us to identify business topics that fall within own fields of interest and investigate these further with help from business frameworks taught in lectures. The risk of relying too much on self-directed learning naturally depends on one's own ability to stay focused and motivated.

We cannot end this chapter without including the potential drawback that periods with reduced motivation have not only on one own learning, but equally on the dynamics within the group in which you study. Self-directed learning relies on a somewhat paradoxical idea of freedom with responsibility, which gives the learner the freedom to choose own project topics, but when responsibility is not maintained, it slides into the hands of group members. The situation where one of us or other group members were demotivated was occasionally encountered, which raises a need for group members to be comfortable enough with each other to address the conditions that are not working. Our point is that the model's clear benefits of motivating the learning via inclusion risks turning into an opportunity for freeriding.

As an extension of the model's unique link to work life, the ongoing encouragement from supervisors and lecturers to take on responsibilities outside the learning institution has from our experience been a key driver for better connecting with the job market. Not only did we become acquainted with work procedures, but we graduated with a diploma that contained institutional as well as practical experience. The latter has proven particularly beneficial in our job seeking. From our experience, employers are more interested in a candidate who possesses occupational experience. However, one drawback was that the model emphasizes the

necessity of exchanges and internships, but has difficulties fostering them. We recommend the institution to provide the students with tangible support to obtain practical experiences in order to fully harvest the benefits that come with PBL.

Finally, PBL is a great advocate for reflecting on one's way of learning and working, and equally on one's peers and the group dynamics. After transitioning into corporate life in a larger organization, understanding the importance of people's differences has turned out to be vital. The organizations we have been in contact with spend a vast amount of time assessing the candidate's potential on an academic as well as a personal level from the very moment of applying for a job and it does not stop there. The assessment continues into the employment, as the organization might enrol you in personality tests to understand how exactly you work best and offer you appropriate development courses. The focus on personality—and how it differs from work to private life—is naturally articulated with PBL, as its main form of learning happens in the reflection that takes place from individual to group level.

PBL has positive effects on students including increased freedom in self-directed learning, induced synthetization of interdisciplinary academic materials with the support of practical examples as well as sophisticated guidance to orient students towards their fields of interest. Despite its advantages, negative experiences of graduates as well as changing habits of the younger generation need to be taken into consideration. Making sure that PBL stays up to date is crucial to prepare students to tackle ongoing issues of navigating in an overflow of information, tasks and people represented from various backgrounds. Problem-based teaching promotes critical thinking, which is more essential than ever. Through the spread of 'fake news' it has become hard to navigate between media sources since the reliability of information might be questioned. *Critical mindset implies the creation of logical and reasonable decisions in a world where logic and reason are increasingly ignored when it comes to contributing to society.* As a result, it is *mutually beneficial for governmental and educational institutions to support PBL methods.* The Danish government has identified human resource and a skilled labour force as a core challenge. Danish universities play a significant role in the future of Denmark (OECD 2012). In the world of globalization, students with an

international background could shape the global presence of Denmark. The order of the Ministry, which seems to have been motivated by a resurgence of populist nationalism and rising fears of immigration, to reduce the admission of international students to Danish higher education is in opposition to the essence of the PBL environment (Aalborg University 2018). By changing the language of several degrees from English to Danish, Aalborg University has reduced its overall presence and global scope and the possibilities for its students to learn from international fellows, which is a vivid advantage of team work and PBL. The fear of “(...) providing education on behalf of other countries” (The Local 2018) will hinder the learning context of students at six Danish universities and result in decreased level of educational quality (The Local 2018).

The international context is essential to support the development of PBL and should not be eliminated or diminished. Such changes are likely to decrease the interest of international students in continuing higher education in Denmark and could lead to a perception of ‘not being welcome’ in Denmark, which reduces the likelihood of staying and contributing to the growth of the economy after graduation.

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# 11

## Internships: Meeting Stakeholder Demand for Vocational Curriculum? Benefits and Costs of PBL-Based Practice Learning

Jesper Lindgaard Christensen

### Introduction

Practical experience is praised as a valuable platform for learning, in discussions on problem-based learning (PBL), in policy circles, academic research, and among employers when recruiting staff. This has caused educational institutions as well as policymakers to stimulate learning through practice during studies, one of the forms being internships.<sup>1</sup> Danish governments have for decades promoted internships as an important part of educational programmes. This policy stems from beliefs

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<sup>1</sup> The broader term ‘work-based learning’ encompasses several forms, one of these being internships. Hora et al. (2017) also mention cooperation, apprenticeships, practicum and point out that internships are the least regulated, monitored, and standardized of these. They find that the literature rarely provides a precise definition and themselves describe internships as ‘a short-term opportunity for students to work (paid or unpaid) for an employer where ideally their academic learning can be applied to real-world tasks’ (p. 6). Even if the empirical case in this chapter does not fit in any of these boxes, I use the term ‘internship’.

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in a variety of competencies and learning, and from evidence that employers prefer graduates who have incorporated internship, especially abroad, in their education (MHES 2012a, b). President Trump stated in 2017 that ‘apprenticeships are going to be a big, big factor in our country’ (Hora et al. 2017, p. 3). Whereas there is research evidence that practice-related education and training, such as internships, have positive effects, in (populist) debates it is as if any internship model is effective and the more use of internship during studies, the better. Moreover, practice learning is often mentioned as superior to pure academically based learning, and students and their families and the media demand more practice elements in teaching.

This has caused education institutions to adopt and market practice learning models as integrated parts of the curriculum in an uncritical way. Aside from the fact that the emphasis on practice as integral and mandatory in curricula could be questioned, there are surely differences in the learning outcomes from different types of internships. This chapter provides a critical assessment of internships and discusses how one model of practice learning works.

Most of the literature is occupied with a traditional internship model in which students perform work-related tasks through temporary employment physically in an organization, hence through practical training gain experience and have opportunities to use what is learned (Chu 2020). Even if this is deemed effective in many studies, there are alternatives, and Hora et al. (2017, p. 2) conclude a review of outcomes of internships by stating that ‘few studies examine the relationship between these design characteristics and student outcomes’ and that future studies need to ‘examine the impacts of specific internship characteristics on a variety of student outcomes’. The dominant (a priori) positive assessments are challenged and discussed in this chapter, something rare in existing research. I aim at filling this gap in the literature by employing data from longitudinal, repeated surveys over ten years on firms’ assessments, and link to the learning environment in which the model is embedded.

Earlier studies have used experimental learning theories to frame the experience in the general learning (Kolb 1984) but rarely to provide a

framework for internships (Erikson et al. 2012).<sup>2</sup> I use problem-based learning (PBL) as a reference point to understand the learning processes involved in the specific internship model used in the fifth-semester business administration studies at Aalborg University, Denmark.

The type of university students-industry collaboration (USIC) I describe is found to not only be positively evaluated by participants, it also seems to spur problem-solving capacity, which is likely to be productive in the specific collaboration, but also in the longer term, and in other contexts. I argue, though, that this learning is not likely to happen to the same extent if a USIC is set up outside the PBL context and that benefits should be evaluated against the costs associated with any internship model. With the growth of higher education institutions' use of internships, there is a need for continuous improvement to optimize learning outcomes (Chu 2020). However, the literature on how to do so (Yiu and Law 2012) and incorporating the costs of the programme (Rowe and Zegwaard 2017) is scarce. Finally, I contribute to the discussion on how to measure the outcomes of internship programmes.

The chapter is structured in the following manner. First, a literature review leads to identification of the research gaps. Three issues appear in that section: university-industry collaboration (UIC) in general, USIC, and how internships are a specific form of USIC. The conclusion from this review is that there is extant literature on UIC and PBL, little on USIC, and few studies (e.g. Johari and Bradshaw 2008) that combine USIC and PBL. In Section 3 I present an USIC model in which the PBL principle is upheld while the model is still cost-effective. Section 4 quantifies the outcomes from the specific USIC. I conclude that despite using different methodologies, data sources, and investigating several dimensions, it is still difficult to capture all effects. The discussion and concluding section takes up the issue of measurement deficiencies and point to the likelihood of positive side effects. It also relates the findings to costs and the external pressure on universities to implement and potentially overdo practice-related learning. Limitations and further research issues are laid out.

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<sup>2</sup>Erikson et al. (2012) find only one study (Little 1993) that links experimental learning theory to internships; however, recently internship research has begun referring to experimental learning.



# University-Industry Collaboration

## Bilateral Knowledge Production and Exchange

The literature on the relation between university and industry now posits that creating usable knowledge is not one-directionally transferred to businesses but jointly created in the collaborative process, where knowledge is seen as both input and output of the interaction (Jacob et al. 2000; Cohen et al. 1998, 2002; Meyer-Krahmer and Schmoch 1998; Schartinger et al. 2002). The type, volume, and efficiency of knowledge exchange is affected by the nature of the UIC inter-organizational arrangements that may differ in degree of formalization, duration, objectives, and commitment of resources on both sides (D'Este and Patel 2007; Schartinger et al. 2002). The policy initiatives for enhancing UIC include spin-off programmes and other technology transfer activities, often embedded in special university entities, mobility of researcher programmes, and tax credits to firms who do R&D collaboration with universities. Such initiatives for promoting and sustaining university-industry interactions are regarded as an important part of encouraging the development of the 'entrepreneurial university' (Fontana et al. 2006).

The UIC has for decades been a top priority in policymaking. The discussion that universities should take an active role in social and economic development is old (e.g. Etzkowitz and Leydesdorff 2000; Etzkowitz et al. 2000) and policymakers and universities have over the past two decades persistently increased their focus on strengthening the UIC along several dimensions: teaching, research, dissemination of knowledge.

Bringing the university and industry closer together is argued to strengthen both research and the content and format of teaching (Etzkowitz et al. 2000). According to Etzkowitz et al. 2000 teaching is positively extended beyond the classroom format when students are offered the opportunity to test their academic knowledge in the context of business and act as an intermediary between these two spheres (Franco et al. 2019). However, the opportunity costs involved are rarely discussed. These costs involve universities redirecting activities towards models such

an ‘open innovation’ model at the expense of long-term, fundamental research. Likewise, if teaching is redirected from a curriculum that prepares students for doing and understanding research and abstract thinking. As will hopefully be evident in the course of this chapter the answer is ‘both-and’; a balance needs to be found, but PBL persists as a cornerstone of effective learning at both ends of the spectrum.

## **Skills and Knowledge Embedded in Human Capital, Students, as well as Staff**

There is a wide range of forms of UIC. Schartinger et al. (2002) provide a review of university-industry collaboration and identify 16 types of knowledge transfer. Formal R&D collaboration, joint ventures, and alliances are often studied. However, there is little mention of the future carriers of this knowledge—university graduates. In addition to scientific and technical knowledge, prototypes, equipment, and instrumentation, economically important inputs and outputs of UIC can be in the form of skills and human capital (students, faculty members, and staff of firms) (Bekkers and Freitas 2008; D’Este and Patel 2007).

The most important and large-scale contribution of universities to societal knowledge dissemination are graduates. They are the carriers of new theories, new techniques, and skills, which they will use for solving industrial problems and supporting firms’ innovative activities (Salter and Martin 2001; Pavitt 2005). Although this is obvious, populist opinions and policies (see, e.g., footnote 5 for a Danish example) tend to forget this effect and to overrate external input contributions and practice elements in education, putting pressure on funding for basic research-based education. While graduates are seen as a key knowledge transfer mechanism, critical studies about intern students’ opportunities and constraints for learning at work and the actual outputs are rarely assessed systematically. Collaboration is perceived, a priori, to have a positive outcome for all participants. These general assertions need substantiation (cf. below).

## Internships: Towards Skills, Knowledge, and Collaboration Enhancement

Although the majority of business schools offer some type of internship programme as part of their business administration teaching (Kim et al. 2012) it is not always used to its full capacity. Moreover, there is little guidance on how to design and implement internship programmes. In only a few studies are the outcomes of internship linked to normative dimensions of how to design an effective model for internships (Gerken et al. 2012; Nghia and Duyen 2019) and they are rarely related to the general learning model (D'abate et al. 2009; Erikson et al. 2012).

The literature has investigated the triggering factors behind internship efficacy (e.g. Narayanan et al. 2010) but even if earlier studies empirically investigated the outcomes of internships (Liu et al. 2011; D'abate et al. 2009; Gault et al. 2010; Simons et al. 2012; Sanahuja Velez and Giner 2015; Hora et al. 2017), the literature has been relatively silent in relating the outcomes to the underlying learning model (Templeton et al. 2012). The empirical foundations for earlier studies are often ad hoc student satisfaction surveys for a single programme and a single point in time. Earlier studies tend to conclude that the effects of internships are positive without considering the costs and opportunity costs associated with obeying the demand for more practice learning. Generally, there is little on employee satisfaction or assessment of the relevance and depth of the achieved learning outcomes and how these relate to and are integrated in a coherent curriculum; in other words, what's in it beyond the 'fun factor' that student evaluations often tend to rate.

This suggests that students, firms, and business school staff as stakeholders in internships have different interests in and expectations of internship experiences in relation to effectiveness (Knemeyer and Murphy 2002; Gault et al. 2010), and that there is a need for a more systematic approach to evaluation and design if the internship is to be developed into a model that is effective for all parties (Nghia and Duyen 2019). For this purpose, it is essential that costs are included in the models. In the following section, I describe one possible response to the need for models that incorporate how to optimize the time and effort put into an USIC.

## **An USIC Model: Undergraduate Students in Cooperation with Firms**

### **The Context: Aalborg University and Problem-Based Learning**

It is part of the history and general approach of Aalborg University, Denmark, to collaborate and engage with the surrounding society and businesses. Throughout their education, students work on real cases, interacting with companies and public institutions. It is part of the performance contract between the university and the Ministry of Research and Higher Education that a minimum of half the students should do their Master thesis in collaboration with an external organization. The university consistently meets this objective. According to Aalborg University's 2017 graduate analysis, 67% of graduates collaborated with a company or public institution as part of a project during their academic education. Just above half do so in their Master thesis.

At Aalborg University the problem-based learning model is built around students working in teams (four to six students at the undergraduate studies) on a problem defined by the team. The work results in a project report, which is orally defended by the end of the semester. This type of learning is supplemented and supported by ordinary classroom teaching. In the majority of semesters, the project work makes up 10 or 15 ECTS (European Credit Transfer System points) (out of 30 ECTS a semester). At the specific semester in question, the project work accounts for 25 ECTS. It is an integral part of this semester that students work with a firm/organization on a specific problem, which is deemed relevant to the host organization. The remaining five ECTS consist of courses that teach how to do a business analysis and how to describe a business in the industry and wider society.

### **Preparation and Set-Up of the USIC Model**

A typical cohort of business administration students is around 200, which necessitates that around 30 firms and organizations volunteer to be a host

for a group of students. A senior staff member is responsible for recruiting the firms, through letter and follow-up telephone conversation. The firms consist of private and public organizations with a minimum of 50 employees where there is a likelihood that business economic problems occur and where there are persons able to provide adequate 'sparring' to the students. This involves providing various information and facilitation so that students can use their knowledge on a relevant practical problem. Geographically, firms are spread throughout the North Jutland region.

In the recruitment process firms are screened to ascertain if they are likely to meet the above-mentioned requirements. It is made clear that, although the firm might have a specific problem area in mind, it is part of the learning process for the students that through talks and analyses of the firm, they should formulate the problem that constitutes the guide for the work. It is required that the firm should recognize this as a real and relevant problem. The initial talk also explains that firms gain from the process and the report, but the primary motivation for joining should be a long-term benefit in contributing to enhanced practice elements in the education. The resources needed for hosting students are explained as are the general conditions. Upon acceptance, a letter of confirmation is sent with all information, and an NDA (Non-Disclosure Agreement) is signed by students. Firms are allocated to student groups by lottery.

Each team is assigned an academic supervisor who acts as a coach, facilitator, and sparring partner. The supervisors are picked on the basis of their academic qualifications and practical experience. The supervisor participates in the introductory meeting with the case organization; subsequently they meet the students four to six times during the semester. In earlier research the academic supervision has been found to constitute an important factor in internship efficacy (McHugh 2017), but also the way the supervisor/contact person at the host institution has an important impact (Franco et al. 2019).

## The Content of the USIC Model

A traditional internship model requires firms to host a student with physical workspace and to integrate her/him into the daily workings of the

firm. This is often resource demanding, allocating time to introduce the intern to the daily routines and how the firm works, and the physical space and office. In this model, students are not physically located at the firm but visit the firm for meetings. In between the meetings, there is an exchange of information through telephone and emails. There is a minimum of one contact person assigned in each firm, but the students typically get to talk to different people with different responsibilities and functions.

Before the first meeting with the firm, students perform an analysis of the firm regarding the history, economic situation, markets, and industry, something taught in earlier courses. In doing so they apply what they learned on accounting, industry analysis, for example; some use the Porter five-forces model to illustrate how the firm is positioned in the market. The first meeting focuses upon introduction from both sides; the firm explains the firms' products and services, customers, markets, and the students present findings from their initial work with the description of the firm and ask for additional information if not publicly available. Subsequently, they propose a problem statement based on communication with the firm and their analysis of the firm. Upon approval by the supervisor and the firm, this problem statement guides the project.

During the work, the students arrange meetings with the firm, and they are expected to draw upon relevant knowledge, competencies, and skills from their academic teaching. The problem areas differ according to what is going on in the firm; hence the students should be flexible regarding that they might not get to work with the area of specializations within business economics that are directly in their interest and plans for further studies. Their work typically includes problem identification, an analysis of barriers and opportunities, potential solutions, and associated costs and other requirements for implementing solutions. All information obtained during the work is confidential. The final report is presented to the firm and discussed with the contact person(s) in the firms.

## Assessment: Costs and PBL

The scheme has worked for more than 30 years and has changed relatively little over the years. This is perhaps an indicator in itself that it is designed expediently and cost-effectively. On the contrary, it may a sign of inertia and resistance to change; however, as laid out in Section 4, evaluations advocate to keep the current model. Even if some of the burden is alleviated for firms compared to a traditional internship model it does involve costs. The firms use time for meetings and preparation as well as continuous ‘sparring’ with the students during the project work and in between meetings. The business school provides resources for recruiting firms (125 hours of senior staff and 30 hours of admin staff) and for supervisors for each group (30 hours per student group).

There were indications that the model worked well, but the hard evidence of outcomes was missing; anecdotal evidence and feedback from students and tutors constituted the basis for satisfaction. Consequently, it was decided to undertake more formal evaluations. Selected results are reported in the next section, which (together with Section 5) provides additional information on the content of the work.

## Does It Work? An Assessment from Firms<sup>3</sup>

Research on internship effects often uses student assessments. There is evidence (Narayanan et al. 2010) that alignment between academic course work and internship content increases student satisfaction with internships. Franco et al. (2019) find that the organization of the internship and the involvement of the host institution are critical to the perceived student benefits of internships. Hergert (2009) points out that lack of procedures for feedback and evaluation negatively influenced students’ and employers’ perceptions of the benefits of the programme. Despite potential measurement biases, the majority of studies measure outcomes in student satisfaction surveys at the end of the internship

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<sup>3</sup> Even if both private firms and public organizations are part of the sample they are here denoted ‘firms’ covering both types.

(Gerken et al. 2012), which can be argued to be too narrow and one-dimensional for adequate evaluation (Nghia and Duyen 2019). In the case described in this chapter, anecdotal evidence suggested that students value the learning form highly. Moreover, a systematic survey of 150 students recorded overwhelming high satisfaction. Finally, tutors reported on how students assessed the USIC learning, again supporting the overall picture of a well-functioning programme.

However, little was known about how the recipient firms experienced the scheme. Consequently, repeated surveys of firms' satisfaction were initiated. Assessments from the participating firms are in focus in this chapter. The assessments are useful for knowledge on perceptions on the scheme in general and the actual processes and outcomes. Survey results also function as inputs to quality assurance and the feedback can act as an instrument for changes (Hora et al. 2017). Another aim relates to the recruitment of firms to the scheme. During the recruitment process, it is an advantage to be able to provide robust answers based upon numbers from previous years to questions from businesses about the expected number of meetings, time, and personnel they need to allocate.

I deployed five biannual survey rounds, each encompassing 20–25 responses. Nearly all respondents answered. The variance of results across the five surveys is small. To increase the number of observations in the analyses I collapse the five survey rounds into one. There are no reasons to expect year effects. The presentation of the results of the study is grouped into four broad categories: overall assessment, the role of monitoring, students' preparation and teamwork, and assessed benefits.

## Assessment of the Overall Idea

Firms' attitude and assessments of whether the scheme worked were measured through a four-point Likert scale with 1 being poor and 4 very good. The results show that the scheme was generally rated *good* or *very good*. Almost 90% of the respondents have this assessment. The average of the assessment is 3.2. Likewise, firms' overall assessment of the idea behind the scheme is positive: 50% refer to the idea as *very good*, while



46% characterize it as *good*. Very few firms think the idea is *fair*, none that it is *poor*. The average of the assessment of the idea is 3.4.

## Assessments of the Firms' Guidance and Work with the Students

Firms were asked to report on different dimensions of how the internship unfolded. They were asked how many meetings they had, how many people have been involved with students, the time spent and if the time spent was more or less than expected. This information is important in the initial contact with firms when recruiting them to the scheme. The information is also useful for quality assurance.

On average, the surveyed firms had six meetings with the students. The minimum number of meetings was 3, while the highest was 15. An average of six persons were in contact with the students. This average has a large variance. The surveyed firms estimate that they used on average 20 hours, the highest 50 hours. By and large, firms (80%) expected a priori to spend what was actually the time spent; 10% spent more time than expected, 10% less time .

## Assessing Students' Preparation and Teamwork

Although respondents probably cannot know with accuracy, firms were asked about their impression of students' preparation for the meetings. Firms were asked to assess how the collaboration between the firm and the students evolved, and whether they experienced specific problems. A large proportion (>85%) assessed the students' preparation for the meetings as *very good or good*. No firms marked 'bad'. All firms assessed the cooperative atmosphere as *very good or good*, with 44% finding it *very good* and 50% finding it *good*. Firms reported 12 specific cases of problems in total during the ten-year span the surveys cover.<sup>4</sup>

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<sup>4</sup> Some of the problems referred to were a desire that the students were more proactive in taking the lead and making the agenda for meetings, too much correction of minutes, and lack of consistency in the project.

## Assessing Benefits for Students

Firms' assessment of *students'* benefits from the internship was measured on a four-point Likert scale with 1 being poor and 4 very good. It is obviously difficult for the company to assess precisely which benefits the students obtained; hence this particular result should be interpreted with caution as it is telling only one side (firms') of the story. Moreover, the interpretation of 'benefits' rests with the firms and therefore adds to the uncertainty about the results. Almost all firms believe that the students' benefit has been either *high* (58%) or *medium* (36%). The average assessment is 3.3.

## Benefits for Firms

Regarding *firms'* benefits, the results show that 63% have a direct, usable benefit from participating in the collaboration; 8% of firms believe that they experienced a *high* benefit, while 55% believe that the outcome for the firm is mediocre; And 19% of firms have a *low* outcome, while 10% of firms had not obtained any direct benefits. The average for the assessment is 3.0. It should be emphasized that the primary motivation for firms to participate is to give students insight into a firms' life and to contribute to their education. Therefore, it is not necessarily worrisome that a high proportion assess immediate benefits as low.

It is interesting to examine whether firms generally had expected more or less than the result. Cross-tabulating questions about the expected and actual output reveals that for the majority, there is consistency between expectations and actual outcome. For example, 70% of firms expected a specific, direct benefit (high or mediocre), and 20% expected low benefits. This roughly corresponds to the actually achieved benefits (63% and 19%, respectively).

## Discussion: Outcomes and Measurement

Although the empirical account of students' satisfaction found positive assessments of effects from the internship programme, not all effects were identified because several effects are indirect and long-term and are not easily measured. Related to our focus area, Hora et al. (2017) classify outcomes from internships in six groups: student employment opportunities, student long-term wage gains, student academic achievement, student career planning/expectations, employer opportunities to 'trial-run' potential employees, educators enhancing the reputation of the programme (p. 7). They emphasize that the existing literature is insufficient in relating outcomes to design parameters of internships and that there is a serious lack of rigorous research on the outcomes. Nghia and Duyen (2019) point to the missing focus on adequate evaluation metrics and methodologies in the literature, and they develop an assessment tool. Even if it is a major step to enhance quantitative measurement tools there is still, and also in their model, a major part of effects that are difficult to measure. Such effects may be for each of the three parties, that is, the firms, the students, and the business school. I review below the effects for these three stakeholders.

### Benefits for Students

**Getting a (Well-Paid) Job and Getting Ready for It** It is often assumed that university candidates immediately contribute to the workplace when starting their first job but it is known that they typically underperform for a period when adjustment and work-related learning take place (Tynjälä 2008; Gerken et al. 2012). The transition period may, however, be eased by preparing students for work through internships. The internship provides insights into how firms operate and increases the students' communication skills and working habits (Yiu and Law 2012; Khalil 2015; Franco et al. 2019). Although the long-term evidence is contested (Rowe and Zegwaard 2017), there is evidence that firms prefer to hire staff with prior experience. An internship on the CV may tell the firm that the graduate has tried the process of using acquired skills on real-life

problems. Studies on the perceived value of the internship from the interns' employers perspective for graduate marketability shows that even average performance interns are more likely to receive job offers sooner than students with no prior internship experience and that they are more likely to receive higher starting salaries (Gault et al. 2000, 2010; Klein and Weiss 2011; Callanan and Benzing 2004; Knouse et al. 1999; Weible and McClure 2011). Likewise, the quality of job offers and the time between graduation and job offer are positively affected by internships (Kim et al. 2012; D'abate et al. 2009; Narayanan et al. 2010; Gault et al. 2000, 2010; Cook et al. 2004).

**Changes in the Mindset of Students** A potential long-term, indirect effect is that students involved in this collaboration will, when employed, be more inclined to approach universities when sourcing knowledge. Even if they only see themselves as closely connected to the university during the internship, they know what is going on at the university and do not have a mental barrier to initiate contact with researchers or studies that use internships (contact persons in firms in the empirical survey reported in Section 4 were often interns during their studies). A second effect is that interns get a clearer perception of whether they would like to pursue a career in the industry, or even in the same firm (Rothman and Sisman 2016). Additionally, there is evidence that internships may stimulate students' entrepreneurship propensity as a career path (Kim et al. 2012; Yi 2018).<sup>5</sup>

**Enhanced Networks and Skills to Use Networks** By getting more confident in what their contribution may be students in internships practise good working habits and get closer to the use and effect of networking (Hergert 2009; Gerken et al. 2012; Khalil 2015). Even if with the firm for only a limited time the students are experiencing how firms use networking in their ordinary business activities. By copying this, the students enhance their abilities to benefit from networking (Murphy et al.

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<sup>5</sup> This belief is reflected in the recommendations from the Danish Entrepreneurship Panel, a group of advisors who in 2017 forwarded a number of recommendations for the government on how to increase entrepreneurship (<https://bit.ly/2Sw6urK>). One recommendation is to ensure better options for getting credit for internships as part of university studies.

2013). Often, they have ongoing contacts with the persons in their internship company after the internship period and draw on their expertise in their further studies. In a few cases in the Aalborg University empirical context, the firms have functioned almost as a mentor for the students during their onward studies.

## Benefits for Firms

**Openness to Other, Further Collaboration** This type of collaboration has several positive effects on organizational and management internal capabilities as well as the mindset of actors involved and might lead to extending the range and possible benefits of collaboration. In many respects, the type of collaboration I describe provides an important ice-breaker for later, more traditional university-industry collaboration, as it opens doors for firms that would otherwise be reluctant to engage in collaboration with university due to perceived barriers such as differences in objectives and cultures between industrial firms and university researchers. Once firms have tried collaboration on internship, they tend to be more open to student internships in the future.

**Recruitment, Screening, and Student Aid** Having interns is a cost-effective means of testing out potential future employees (Knemeyer et al. 2002; Gault et al. 2010). When screening students the firms shortlist a number of good students that are often hired as student aid and subsequently as permanent employees. This recruitment source has been documented in several surveys (Coco 2000; Divine et al. 2008; Weible 2010; Zhao and Liden 2011; Rose et al. 2014) and is part of the reason why some firms prefer to have interns that are close to finalization of their studies.

## Benefits for Business Schools

**Stronger Links to Firms in the Region** Through students in internships in local firms, linkages are established and maintained between firms and the business school. Internships may have long-term, specific effects. Academic internships can contribute to building a long-term relationship between university and industry (Schartinger et al. 2002; Weible 2010). Often barriers to university-industry collaboration are related to firms' perception of universities as difficult to access and having a completely different culture and logic. Engaging in internships is a less demanding assignment and it often functions as icebreakers for firms that are initially inexperienced and reluctant to collaborate with universities. When the business owner has no higher education, this is more often a barrier. The continuing commitment to opening the doors for interns contributes to firms feeling more closely related to universities/business schools.

**Improved Curriculum and Reputation Rendering Student Recruitment** Competition between education institutions becomes ever fiercer, which means that the reputation of business schools is more important for the recruitment of students. Generally, internships are seen as positively influencing the curriculum and consequently the attractiveness of the business schools (Gerken et al. 2012; Weible 2010). This is achieved through the continuing upgrade and adjustment of needs for knowledge among students to tackle the problems they meet in firms. For example, new ERP systems, online sales platforms, SoMe marketing are some of the issues that have been new on the agenda of firms and that require business schools to incorporate such elements in the curriculum. This ensures that the curriculum reflects real-world problems. Of course, the curriculum is improved through other means and students are recruited by other means, but improving the curriculum through internships may have positive spillovers on student recruitment. However, for internships to improve curriculum close links between the learning objectives, supporting courses (such as business model analyses), and quality assurance are needed (Hora et al. 2017; Rowe and Zegwaard 2017).

**Spillovers to Teaching Theories—Reference Points with the Students When Lecturing** Most internship programmes request the students to reflect on the relationship between their work experience and the possible use of theories even during the internship (Clark 2003). This helps students to see the relevance of theory and stimulates the learning process (Kim et al. 2012). Even after the internship, this enhanced learning effect is likely to prevail. Problem-based learning depends on the experience of those solving the problem. Having a wider experience increases the likelihood of effective solutions. At business schools, theories are an important part of the knowledge base and internships provide a different and wider set of experiences to test theoretical knowledge. Textbooks and teaching may involve case studies; however, the internship period in firms provides a more efficient case closer to students' expectations and experience. Because they usually know more about the case than the instructor, they feel confident in discussing it in class.

## Costs

Parts of the present chapter are in an explorative manner pointing to plausible indirect effects and posing hypotheses that are difficult to measure and not tested. In these cases, I relied on findings from earlier studies. Nevertheless, I conclude that despite severe measurement problems and the challenges in capturing all possible effects from internships the benefits of the described internship model are indisputable. The costs associated with the schemes should, though, be part of the equation. It requires time and resources for firms to give students the guidance they need (Birch et al. 2010; Gerken et al. 2012); business schools have concerns about whether students obtain the learning from the internship that was stipulated (Clark 2003; Kim et al. 2012); and students may feel unsure about what to gain from the internship in some cases even feeling exploited in the workplace (Gerken et al. 2012; Narayanan et al. 2010) or doing under-qualified work.

## Conclusions

The general belief that UIC is always beneficial enhances a tendency of public research funding agencies to allocate to a higher extent their funds to strategic purposes rather than to basic research. The requirement that research should demonstrate societal impact pushes activities in the direction of more 'close to market' research and teaching. The rationale for UIC is, however, rarely questioned. Populist opinions assert that universities should deliver payback for taxpayers' money and stop being an isolated ivory tower where the knowledge produced is regarded as irrelevant to society and rarely disseminated. This assertion can be questioned. Research has demonstrated that there is a decreasing marginal benefit from collaboration with more partners beyond a threshold (De Faria et al. 2010). Even so, public opinion and policymakers contend that 'more is better' for firms and universities. Increasing collaboration appears to always be advocated. This is not to argue against UIC, only to warn about populist opinions pushing UIC too far. Strongly related to this argument is the fact that whereas there are funding streams for education and research, the 'third-leg' activities at universities are generally not funded (nor always giving credit/merit).

Internships are a special form of UIC, here denoted as USIC. This problem area is complex and involves several types of effects and processes with different actors and in different time perspectives and is therefore difficult to evaluate with precision. Nevertheless, I quantified effects from such processes based on five repetitive evaluations of this USIC, on the Bach. Business Administration programme's fifth semester where students collaborate with firms in North Jutland, Denmark. These evaluations were among businesses participating in the collaboration over the past ten years. I included a description of one such model. The model description served two purposes. First, it illustrated how a model for an internship may be designed. Second, it had a prescriptive purpose as it constitutes a recommendation to how PBL may be stimulated while having an eye on the costs involved. I find a generally positive attitude to the use of internships for learning in the established literature. Moreover, the empirical evidence presented points in the same direction.



Business schools need to be conscious of the factors underlying effective internship models. It has been shown that a positive outcome of internships is critically dependent upon the supervision and feedback from the company and business school (Narayanan et al. 2010; Gerken et al. 2012; McHugh 2017; Ripamonti et al. 2018). Additionally, student satisfaction with internships seems to be dependent upon job characteristics, work environment characteristics, contextual factors (D'abate et al. 2009), effective commitment from the firm, and the attitude to the industry (Liu et al. 2011). These results suggest that internships need to be carefully designed to become effective (Clark 2003; D'abate et al. 2009; Khalil 2015; Nghia and Duyen 2019; Franco et al. 2019; Chu 2020). I discussed how a model could be cost-effective in terms of the resources that firms, students, and teachers need to allocate compared to resources involved in traditional internships such as physical work space, time for mentoring at the host institution, and so on. The PBL elements were seen as integral and decisive for the positive outcome of the AAU USIC model. However, again, caution should be taken to jump to hasty conclusions. Populist beliefs that any work practice learning model is worth pursuing at the expense of 'ordinary' research-based teaching should be critically assessed against the costs and benefits involved, to some extent regardless of student satisfaction opinions.

One consequence of this is a need for future research to develop appropriate evaluation techniques for their internship programmes (Clark 2003; Nghia and Duyen 2019). Learning from such evaluations demands continuous upgrading, fine-tuning, and quality control of the internship model and practice. This is an important task for business school education involving internships. Specifically, future research in this area could embark on matched student surveys where one group are internship participants, the other not. However, the controls needed for this kind of analysis are likely to be numerous and difficult to operationalize. A second consequence is that closer scrutiny of the learning outcomes compared to curriculum and learning objectives for education is a needed area of future research as well as a more detailed definition of the disadvantages and opportunity costs involved in internship programmes.

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# Part IV

## Problem-Based Learning Supporting Global Agendas



# 12

## PBL: A Teaching and Learning Concept Is Facing Artificial Intelligence

Ralph Dreher and Gesine Haseloff

### Introduction

Algorithm creation, optimisation and legitimisation form the triumvirate of a new form of professionalism in times of digital value creation. This study focuses on how individuals can be enabled to create a responsible relationship between themselves and the digitalised value creation, which they are inevitably confronted with. PBL (Problem-Based Learning) is identified as an essential concept to support educational processes in this respect. A particular challenge for the implementation of PBL has been the problem of performance evaluation. The chapter describes possible solutions with particular consideration of Rauner's COMET concept.

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## What Is “Digital Value Creation”?

“Digital World, “Digitalisation”, “Internet of Things” (IoT) or, with regard to the production of goods “Industry 4.0”, describe an automation of the value-added chain (see [Vignette 12.1](#) for details). Broadly speaking, the term “value-added chain” is understood as process control that is tailored to requirements and thus always optimises itself:

- from customer acquisition via the
- provision of a product or creation of a service as well as the associated
- logistical processing and delivery up to the
- evaluation of each individual process.

### Vignette 12.1: Digital Value Recreation

For “Digital Value Recreation”—the creation of corporate values through digitalisation—it is necessary to disclose implicit knowledge as part of work process knowledge. The following example illustrates this. The study *Maschinen- und Anlagenbau in Deutschland* (Dispan and Schwarz-Kocher 2014) confirmed that the quality of a machine or plant only contributes to a certain extent to the purchase decision. At least equivalent to the marketability of the offer is, according to the study, the concept of maintenance/servicing and repair necessary for the operation of the machine or plant. This is all the more significant when one considers that on the world market there are hardly any differences in quality between the products of the various mechanical engineering suppliers. The significance of the seal “Made in Germany” as an indication of high quality of mechanical engineering has been revitalised.

German companies are very aware of this development. So far, they have responded to this with large capital and personnel investments. The company recruits and employs a large number of highly trained specialists who are deployed worldwide for the maintenance of the machines and systems manufactured and sold. They can carry out the necessary maintenance and repair work on the customer’s premises in the shortest possible time or guarantee constant operational readiness by regularly replacing components. In addition to the usual wages and salaries, the company has to pay for travel and accommodation costs for the employees. Often additional compensation payments have to be made and considerable expenses for security measures have to be incurred.

From an economic point of view, it makes much more sense—and is more ecologically sound—to provide local workers with the necessary

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**Vignette 12.1** (continued)

information. Regional workers could be trained on-site to take over the maintenance and repair of the machines. At this point, the use of intranet documentation that can be updated quickly could be extremely useful. International comprehensibility would be ensured by descriptions with images as much as possible: For example, technical drawings and the use of generally understandable symbols for tools. For guidance through the work process (e.g. which screw to loosen and when) an augmented reality medium, so-called smart glasses, could be used.

But it has been shown that such an approach raises new questions. Here is an example from Dispan and Schwarz-Kocher (2014): Mechanics have been trained with the above-mentioned digital media for a relatively simple repair task (replacement of high-pressure pipes flanged on via swivel nuts). It was easy to find out which mechanics could solve this task well or less well (tightness of the system, condition of swivel nuts and sealing cone, time needed). But many of the test persons could not justify their actions afterwards—except that they followed the instructions of the digital media. Even the video analyses could not provide any information about this. At first it remained hidden what implicit knowledge was used that would help to solve similar cases in the future. The idea that this would make it easy to arrive at a transferable success strategy and to document it, was initially shattered.

Out of 96 test persons, each of whom carried out maintenance three times (i.e. a total of 288 cases), six equal variants of successful work processes were described. In order to find out how a support system should be designed, these successful cases were compared with procedures where the maintenance task failed completely. Only now did it become clear to some extent which specific errors occurred—the documentation of a “best practice strategy” was nevertheless unsuccessful. Just finding and documenting the main assembly errors took too much time and personnel effort (about three man months). The result: The partial disclosure of implicit knowledge does not allow transferability of the results. The maintenance of machinery and equipment by regional workers cannot be provided in sufficient quality after such online-based training. The creation of a new corporate value—a “Digital Value Recreation”—has not yet been satisfactorily achieved.

According to previous experience, a company has to find out anew with each new repair situation and determine which task (which problem) has to be solved, what the acquisition strategy is (video analysis, interview, observation floor), how the analysis is carried out and which methods are used to solve it. Behind a repair situation there are always several individual tasks with low salience (and thus the possibility of a standardised procedure) and at the same time a high project character. These can only be solved by employees who have been trained to work independently, creatively and (!) purposefully in such a project-based work environment.

But digitalisation goes beyond the growing automation of the 1980s. It not only encompasses the development of a recurring work process becoming independent (typically: an assembly process), it also includes the independent (!) flexible adaptation to the respective needs of business processes. The prerequisite for this is the algorithm creation of work process knowledge. The latter must be obtained for the purpose of machine-based decision-making. It contains “how” and “why” something is done in a certain way and not differently. If the protagonists of this development are followed (Kagermann et al. 2013), such an act takes place in three steps:

1. Recording work process knowledge in an act of work process analysis (answering the question of “how”)
2. Discipline-specific penetration of the accuracy of the determined and the degree of its exemplarity (as archetypically correct and thus meaningful for the algorithm secured by the technically substantiated answer of the “why”)
3. Extension of the singular archetypal by adaptation to changing needs with constant process control and process optimization (implementation of an application-specific “Deep Learning” functionality as a prerequisite for a continuous improvement process)

However, even today it is considered to be extremely difficult and hardly achievable to actually capture work process knowledge (as a first step). This is shown by Polanyi in his work about the paradoxon—we can know more than we can tell—of implicit and explicit knowledge (1974), tRyle in his diagnosis about the intellectuality (1969) and Yuen in her analysis about experience-knowledge as a factor for Industry 4.0 (2017).

Alternatively, the use of “big data” analyses, that is, the comparison of a large number of work processes with the same objective, creates a basis for formulating algorithms. The effect of machine evaluative self-optimisation (based on a big data collection) can be used to bring these algorithms to application maturity. The impossibility of humans themselves analysing the perspective activity regulation is thus overcome.

Perspective activity regulation in this context means the ability of humans to adapt decisions about their actions in the action itself depending on the situation or to generate modifications in the action process. He or she does this by shaping ad hoc alternatives, by accommodatively reflecting them through mental simulation, and by reflecting and modifying them through assimilative influence already within the course of action. Machine evaluative self-optimisation, on the other hand, means that there is no solution for the task in the sense of the archetypal. Therefore, a machine-driven interpolation is first used to make a decision, the effect of which is evaluated at the end of the process and, if successful, made available as a new data set. Uncertainties and qualitative deficits as results of the machine-driven are (ethically) tolerated as a necessity. The disadvantage of machine evaluative self-optimisation is that it cannot be used to react immediately to the situation (since comparative cases must first be available according to a trial-and-error principle). This proceeding as a result of digitalisation—as defined above (automatic generation of decisions)—is justified with the high experience level based on big data.

The knowledge about this systemic disadvantage of digitalised processes compared to conventional analogue processes is nothing new. Despite the resulting potential for errors, this procedure can be classified as feasible—compared to the real decision-making of humans.<sup>1</sup> Considering the perspective of the imperfect human as reality, the trial-and-error-procedure of digitalisation seems to be acceptable.

In addition, it can be concluded, if no qualitative improvement can be expected for the holistically considered work process through digitalisation, the question of its value can only be answered as follows: Digitalisation replaces manpower for the execution of already highly standardised decision processes and at the same time increases the process speed. Digitalisation as an overall social process must therefore be understood primarily as an economically driven process. This is not in service of a new (social) idea of work. As often promulgated, it is regarded as a revolution of gainful employment and its contents (or better: evolution of economic activity).

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<sup>1</sup> See the current rather implicit argument of the human being, who also does not act faultlessly (Garfinkel and Wieder 1992).

## What Are the Consequences?

According to this understanding, digitalisation must therefore be understood as an endeavour to rationalise all those work processes that are rule-based and recurrent. On the one hand, this means that human labour is no longer required for certain work processes. The work process is hence increasingly decoupled from its actual value-added process. On the other hand, this means: If digitalisation progresses, future work will be in demand and classified as high-quality if it consists of:

- recording and creating algorithms of rule-based work processes or
- adapting implemented algorithms to market and demand requirements.
- respecting the ethical standards—as applications can be equipped with monitoring functions and used for action regulation (see the fundamental criticism of Zuboff 2019) protecting personality and other rights (The ignorance that politicians show towards digital service providers like Cambridge Analytical.)

### **Vignette 12.2: What are the Consequences of Digitising Work Processes?**

The digitalisation of work and business processes is associated with the disappearance of previous business areas and at the same time—to remain relevant to the market—the search for and finding of new offer formats. The rapid development and worldwide market dominance of Internet groups as global players with unique selling points is a good example of this. The ongoing process of change can also be seen through “PBL glasses”. The problem “How will we earn our money in the future?” always occurs again exactly when a solution seems to have been found. Because at this point at the latest, the next step into the entrepreneurial future must be formulated and taken. PBL is applied in a cyclical process and not in a single process.

The following example comes from a survey in the German project study “Mittelstand 4.0” (2019): A mechanical engineering company claims world market leadership in 2010, as it supplies 96% of the world market with its special products. The main argument for this company’s machines is not their robustness, but their productivity (process speed) which is about three times higher than that of competing products. This results in a significantly

*(continued)*

**Vignette 12.2** (continued)

higher level of efficiency. What is remarkable is that it is not the machines that are designed differently or better than those of the competition, but their control is much more precise. This is achieved by taking into account the factors for such a high-speed manufacturing process in an extremely differentiated manner (material quality, environmental data such as air temperature and humidity, quantity and quality of additives such as lubricants and cooling preparations). This ensures a very low downtime rate as a result of a disturbance in the production process. In fact, market dominance therefore results from the (mathematical) models for machine control, not from the design of the machine itself. The owner of the company realised here: "The world market has long since decoded the DNA of my machine—but not its brain".

In order to maintain its market leadership, the company has therefore reinvented itself—without there already being any concrete need. The project objective was stated as follows: "In the future, we will no longer be a machine builder, but we will transform ourselves into a provider of production data!".

Today, five years later and in connection with the foundation of an own start-up for the generation of production data, the following situation arises: The company still manufactures and produces its machines (but at cost price). But in addition, every customer accepts that, in addition to purchasing the machine, he or she will also sign a contract for data transfer (the actual cash cow of the company). The machines themselves are equipped with extensive sensor technology to record the production conditions on site. Every eight hours the company transmits new machine parameters. This ensures the high process speed. Conversely, the customer is entitled to compensation payments if the processing speed is not achieved (a case which, according to the company, has never happened before).

The following is worth noting in this example:

1. The very regionally oriented company did not immediately succeed in the transformation from mechanical engineer to data processor for various reasons: There was a lack of employees who could work securely in the necessary project structure. Too high design demands: "What is to be done and for what reason and how?" unsettled and paralysed the established workforce. In the end, the start-up idea of decoupling the data acquisition on the machine from the actual machine control system bore fruit. This means that only through new creative potential, which became accessible with the foundation of the start-up, could the development continue.

(continued)

**Vignette 12.2** (continued)

2. Two other companies in the region failed to develop new business areas—neither a project-focused development nor new creative personnel were established. The companies relied on the good market position they had achieved. Both failed and went bankrupt within five years from the position of world market leader (“Nokia” effect).

The successful company mentioned at the beginning of this article has again asked itself, after the transformation of its own business, what its business field of the future will look like: Against the background that the mathematical models of production data have to be decoded, it has outlined the following problem: There is a lack of skilled workers who can operate in such flexible structures. This shortage not only hinders our own companies, but the whole region. The conditions must therefore be identified and created under which independent, responsible and creative workers are available to the regional labour market. The result was the establishment of a smart training centre financed by further training courses, which operates according to the PBL principle and is now in demand nationwide.

At the same time, the protagonists of the development of digitalisation stress that potential means the resources that are necessary to generate the necessary adaptations for a modern market economy (BITKOM et al. 2015) that is globally competitive. Digitalisation thus proves to be a technology-driven implementation process for maintaining economic competitiveness (see Vignette 12.2). This transformation of the traditional idea of work is legitimised—unfortunately so far unreflected—by a questionable argument. It resembles the assumption of “technically sweet”<sup>2</sup> by Oppenheimer (Hsu 2015): Because it is possible, I can do it—and there will always be one who will do it. The alternative of non-realisation thus does not exist.

This seemingly irreversible path is fundamentally questionable. Much more emphatically than in the past, it must be asked whose responsibility the creation of algorithms and optimisations will be; who should (and

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<sup>2</sup>Teller legitimised the construction of the hydrogen bomb by saying that otherwise someone else would have done it. Translated into current terms, this means, since the technological potential exists globally and others (market competitors) will use it, it is legitimate to use it ourselves.

can) assess the consequences of the resulting outcomes and their ethical legitimization? In view of the degree to which digitalisation has already been implemented, this seems even more important. In view of the prerequisites and detailed knowledge necessary for these work processes, only one path will be possible in the foreseeable future: Such considerations must be integrated directly into the actual work processes of algorithm creation and optimisation. Only here can their effects be recognised. Therefore, in addition to algorithm creation and optimisation, legitimization is the third equal work content. Algorithm creation, optimisation and **legitimation** thus form the triumvirate of a new form of professionalism. It is characterised by the fact that it initially substitutes essential parts of gainful employment. At the same time, it defines work content that is becoming increasingly decoupled from the actual value creation process.

## What Are the Necessities for Educational Processes?

The development towards “responsible citizens” who assume responsibility for shaping work and society is a declared educational goal in vocational education and training in Germany (KMK 2011). Even in times of digitalisation, education cannot fall behind this aspiration. However, if together with “digitalisation” a process is introduced that has a clear influence on future work processes, this must also have an influence on educational processes:

- Factual, deposited, that is, algorithmised knowledge at the taxonomic level of knowing and naming<sup>3</sup> can only be regarded as a preliminary stage of vocational education and training.
- This puts the concept of “procedural knowledge” (Fischer and Mandl 2001) as an educational concept at the turn of the millennium to the

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<sup>3</sup>Humorously titled as “parrot knowledge” due to its fast playback capability.



test because it refers to work process knowledge which can be verbalised, which is describable and also algorithmable.<sup>4</sup>

- If the essential questions of “how” and “why” can only be answered by reflections—as the core of algorithm creation and legitimation—in design processes as (future) dominant work contents, then reflection must be understood as an essential procedure of future-oriented education. Reflection as a moment of learning and teaching thus becomes a precondition for making digitalisation co-designable and accountable (with its possibilities and its problematic nature).
- If, on the other hand, this is not guaranteed, the associated reduction of the previously derived triumvirate to the mutual sequence of optimisation and algorithm creation results in the irresponsibility of digitalisation as a process.

Education will therefore have to aim specifically not to prepare people for the adoption of learnable routine activities. Rather, education must aim at the taxonomically highest levels of analysis and synthesis from the beginning, that is, the ability

- to recognise problem situations,
- to understand their cause,
- to create problem solutions,
- to select and implement the most appropriate one, as well as
- to control their effect and to reflect on it.

This goal of education coincides with action regulation models, as described by Volpert (1997) and updated with a view to digitisation by Hacker (2018). They have recently been transferred into the principle of holistic action (complete action) in the sequence of informing, planning, deciding, implementing, controlling and reflecting. Education on this basis decouples itself from static curricular units. Instead, current, up to now, unsolved problems from the world of work and life become

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<sup>4</sup> See also the principle of the “lemon squeeze”, according to which work processes are recorded until they, including their determinants, are present as ideal processes with corresponding adaptability to situational dependent variation patterns.

incentives for learning tasks. Students enter a continuous process with their (in some cases low specific/individual) knowledge as well as through their actions and reflections.<sup>5</sup> Throughout, students arrive at ever more developed action alternatives. These alternatives induce a continuous knowledge growth during their work on the learning task.

## Problem-Based Learning as a Key Instrument

If, as previously deduced, “digitalisation” plays a central role in the working world, and this inevitably leads to a focus on an action-guiding concept of education (in contrast to the idea of knowledge-based education), then digital work and business processes must become core curricular elements for action (cases in the form of problems) in the future. Based on these cases, learning must be understood as an educational process that aims at exemplary, case-oriented responsible design. The focus is on problem identification, problem-solving and solution evaluation. This leads to the demand for an educational concept that appears highly congruent with the PBL approach. This approach requires independent problem-solving with the phases of professional penetration, solution development, testing and reflection described above (Dreher 2012), together with the educational goal of the independently acting responsible citizen (see Fig. 12.1).

One consequence that can be derived from this is that, in view of the challenges to education and training described above, PBL must not be understood as a pedagogical alternative, but as a primary concept for preparing people for a rapidly changing working world and living environment. Educational institutions must therefore ask themselves how they implement PBL—in order to meet this central demand and thus fulfil their legitimacy as a place of education. This applies above all to those with a direct focus on the employability of their educational offers. Implementation means qualifying teaching staff for design-based

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<sup>5</sup> Reflection means on the one hand interactive work in the process triangle of algorithm creation, optimisation and legitimisation. And on the other it means dealing with the determinants of sustainability. So reflection includes social, ecological and economic accountability (whereby the notion of economy includes the economic benefit). See Fig. 12.1.

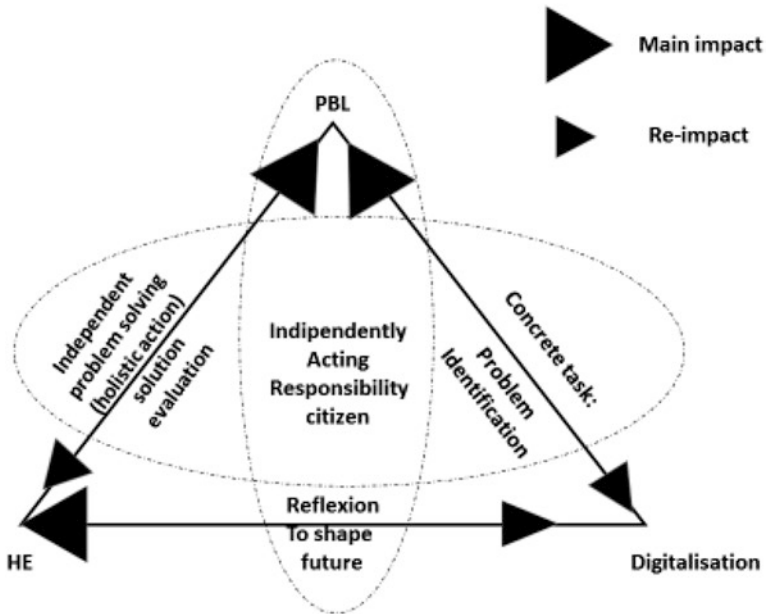


Fig. 12.1 PBL as educational concept for gaining of personal shaping-competence

learning (as the most important moment), and above all dealing with the particularities of curricular work and the reservations and inadequacies in the assessment of academic performance.

Looking to the spirit of the Bologna-Process, employability is not the same as vocational usability (see Schubarth et al. 2014, p.11). The current criticized notion that a Bachelor's programme should primarily achieve vocational usability is clearly supported by the emergence of new subjects such as "Nursing", "Tourism Management" or "Fashion Merchandising", which already have established vocational training courses, primarily in Central Europe. If, as a result, the understanding of employability in the sense of vocational usability is used as the core thesis for this contribution, it leads to the following: Digitalisation asks for new concepts to develop vocational usability (digitalisation as occupation) and (!) general education (digitalisation as an intervention in the personal way of living—the independently acting responsible citizen).

## Curricular Consequences

Problem-Based Learning requires continuous work on the curriculum. Within a task area which changes rapidly due to digitalisation, a high degree of obsolescence of “problems” for resolution in the curriculum can be assumed.

Future curriculum work—in a constant process of development—must therefore:

- Take up new curricular content in the form of problem descriptions from digitalised work processes. This means the establishment of an intensive and institutionalised exchange with partners from industry and science.
- The didactic content must be reviewed, so that the organisational capability is promoted by the perspective of a multi-dimensional solution.
- Their degree of complexity must be assessed. This is primarily determined by the salience, that is, the determination of the task (see Neuweg (1999)).

In order to be able to take up these demands, the organisational and personnel requirements for the continuous development of “cases” as a starting point for PBL-based learning must be created within an educational institution.

## The Problem with Assessment and Grading

Because of the advantages and necessities, PBL experiences increasing approval as a form of learning. However, from our experience as a training institute (for teachers) many teachers (and their institutions) do not feel up to grading, that is, the reliable, valid and objective assessment of learning outcomes when working on a PBL task. This makes teachers hesitate in opening up to the PBL approach even if its introduction—in view of the demands of the digitalised working world on education and training—appears to them to be absolutely necessary. The development of appropriate assessment procedures to assure the achievements of PBL learning outcomes is integral and essential to the process. The following table provides an overview of the proven procedural approaches so far (Table 12.1).

**Table 12.1** Grading procedure for PBL sequences

Procedure	Main characteristics
Result orientation	The functionality of the result is the main criteria.
Step grading	Grading every step of PBL by using standard criteria for informing, planning, deciding, doing, controlling and reflecting.
The way is the aim	The style of working and its efficiency with directed self-criticism for the next step is the main criteria. The result is subordinated.
Combining concepts	Combining the concepts of "result orientation" and "the way is the aim" in individual, but transparent weighting.
COMET (Rauner 2009)	Using a rater system with the criteria of functionality, clearness/presentation, efficiency, use value/sustainability, orientation on work-and-business-concept, ecological responsibility, creativity of the solution and social responsibility.

The adaptation of the COMET procedure (Rauner 2009) must be examined in particular (see Vignette 12.3). Due to the establishment of a rating system, it initially has the highest requirements. It allows the most detailed conclusions to be drawn in respect of the strengths and weaknesses of the teaching and learning. Because in this model a lack of outcome is not a singular problem of the students—it has a high correlation with the competence of the teacher (see Rauner 2013). In addition, it can provide information on the performance of the students, the teacher and (indirectly) the organisation of the institution; with regard to the design of open, project-based forms of learning.

### **Vignette 12.3: Competence Measuring with "COMET"**

COMET as an acronym for Competence Measuring and Training is a method for measuring competence developed by Felix Rauner from 2007 onwards (Rauner 2009). It is based on the assumption that competent action is most evident when a hitherto unknown, less routine task has to be solved with the help of knowledge on the one hand and experience on the other, and in consideration of the responsibility (usually in social, ecological and economic dimensions). The solution, initially outlined in writing, is evaluated by two independent evaluators in a COMET competence measurement in accordance with the following criteria:

(continued)

**Vignette 12.3** (continued)

- Functionality
- Clearness/Presentation
- Efficiency/Effectiveness
- Use Value/Sustainability (in the sense of robustness and longevity)
- Orientation on Work and Business Process
- Ecological responsibility
- Creativity of the solution
- Social responsibility

The COMET process has been used internationally by Rauner's research group (Rauner 2009). The aim was and is to be able to make well-founded statements on the competence of teachers and their respective initial and continuing training systems as well as on the performance of vocational training courses or education systems (based on individual student performance or performance in school comparisons or in international comparisons at the same time of training). The competence of teachers becomes measurable because they can access an independent pool of tasks in COMET with tasks for competence-oriented teaching development. If the results achieved within COMET are considered in their entirety (i.e. independent of the location of the survey), the following results can be seen:

1. For both students and teachers, the dimensions that represent specialist knowledge (functionality, clearness, use value) dominate. Vocational education and training, according to the interpretation of these results, is thus primarily understood as an act of knowledge transfer, not as a process for strengthening the regulation of vocational activities. It is paradigmatically (and unproven!) assumed that every learner succeeds in performing a correspondingly competent (problem-solving as well as responsible) action on the basis of comprehensive, easily reproducible specialist knowledge.
2. In terms of their competence profile, students are a reflection of their teachers: If the teacher has a high level of expertise and sees the teaching as the core of his or her professional activity, then this dominates within the competence profiles of the students. Conversely, the competence profile of the students is broadened if the teacher himself or herself views their lesson planning as a holistic act. This is particularly true in the dimensions "Social Responsibility", "Ecological Responsibility" and "Creativity of the solution".
3. In addition, a stagnation effect is apparent, which supports the thesis expressed at the beginning that specialist knowledge and competent action are not directly correlated: In fact, at the beginning of a vocational

(continued)

**Vignette 12.3** (continued)

training course, it can be observed that specialist knowledge has a strong supportive effect in order to act in an optimal way professionally. However, these tasks are at an intermediate level of “know-how” with regard to the possibility of designing one’s own, if one follows the common taxonomies of professional action—such as Dreyfus/Dreyfus’ “developmental logic principle” or the principle of action tasks according to Havinghurst (both of which can simultaneously serve to find the content and the curricular structuring of PBL-based educational concepts). The high achieved value of the criterion “Orientation on Work and Business Process” means the increase in professional socialisation in the sense of copying patterns of action that have been recognised as successful. If, however, competence is understood as the ability to solve unknown tasks with new solutions (see Weinert’s concept of competence (Weinert 2001a, b), stagnation becomes apparent at this point: Students trained with a strong focus on specialised knowledge are not able to solve such tasks comprehensively (i.e., to meet all COMET criteria). Instead, those learners who follow a design-based approach, as in PBL (according to the principle of complete action: Inform-Plan-Decide-Control-Perform) can be trained to achieve other results. Especially through their ability to plan processes comprehensively—based on previous reflection—they are able to arrive at truly holistic approaches to solutions that are functional AND responsible AND innovative.

Conclusions from the COMET measurements are therefore:

1. If vocational education and training is understood as the ability to act in a problem-solving manner within the vocational domain, this education and training must favour learning formats that are design-based. This approach corresponds to the PBL core idea of allowing the possibility of developing one’s own solution strategies on a problem-based basis and reflecting on them professionally and ethically.
2. However, such an educational concept is only possible if it is supported by teachers who are able to perceive its advantages, and have experienced its potential for personal development themselves. This means that PBL teaching requires PBL-based lecturer training.

## Conclusion

Numerous rule-based and recurring work processes are digitalised and have algorithms created around them. They can (partly) do without human labour. The introduction of digitalisation is *predominantly* economically motivated. This is economically understandable, but raises ethical questions. Is the idea of meaningful work as the core of human activity threatened to disappear? Who controls optimisation? Who controls the algorithms and their results? In addition, there are ethical questions regarding the processes addressed. Optimisation, algorithm creation and legitimation must therefore be understood as a triumvirate. This triad must become a general aim of education in the era of digitalisation to justify it being the core of a new form of professionalism.

Education and training should prepare directly for the implementation of digitalisation as new and highly demanded work content with considerable future potential. It must enable learners to understand the work processes in the digitalised working world and engage in a creative way. This will only succeed if reflection on digitalisation—or rather on concrete tasks for the digitalisation of work creates self-designed (!) opportunities for teaching and learning. Action-oriented education on the basis of PBL can point the way. This is recognised by an increasing number of teachers and their institutions. However, teacher education experience shows that some of them see themselves as hindered from introducing PBL by the form of performance assessment. In order to increase the acceptance of PBL, the COMET procedure, according to Rauner (2009), offers a way of appropriate performance assessment.

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# 13

## PBL and Social Inclusion

Sofia Daskou and Nikolaos Tzokas

### Introduction

Social inclusion is imperative for a stable and open society, and features in government and inter-government policy objectives, as well as in the agendas of various interest groups. For example, UNESCO's interest in social transformation has led to the institutional development of MOST, an intergovernmental science program on social transformations, which amongst other things aims at “inclusive and sustainable responses to environmental change and the promotion of inclusive, effective and accountable governance, as well as to the achievement of UNESCO's Global Priorities” (UNESCO 2018). The program promotes inclusive knowledge and inspires intergovernmental dialogue that lead to policy

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design. The ideological objective of this initiative is to improve “connections between knowledge and action, connections that are key to positive social change” (UNESCO 2018).

Social inclusion is guiding the education policy making of various governments (i.e. Hong Kong Government 2012); is a consideration of the European Union (EU 2018) Sustainable Development Strategy (COM 2001); and a basis of curricula development (Stickley et al. 2016) and service provision (Wearing 2011; Cheung 2013; Bennett Anthony 2011). This chapter addresses ways in which Problem Based Learning (PBL) applied in higher education (HE), facilitates progress towards social inclusion.

## The Ontology of Social Inclusion

To better understand the concept of social *inclusion*, we must attempt to comprehend the nature of social exclusion. Levitas (2005) identified three discourses to describe the concept of social exclusion. First, the redistributionist discourse (RED), which “broadens out from its concern with poverty into a critique of inequality, and contrasts exclusion with the version of citizenship which calls for substantial redistribution of power and wealth” (Levitas 2005, p. 7). RED accentuates poverty as the main source of social exclusion. It focuses on processes that create social inequalities (such as the validation of unpaid work, reduction of benefits for the poor), and advocates redistribution of power and resources to reduce material and other types of inequalities (Levitas 2005). Secondly, the moral underclass discourse (MUD) which focuses on the behavioural and moral delinquency of socially excluded individuals (Levitas 2005). MUD suggests that benefits encourage the poor to be dependent; yet it does not acknowledge unpaid work and focuses on the behaviour of the non-mainstream underclass of socially excluded, tinted by notions of genderizing the personal and economic dependency of females on the state (Levitas 2005).

Thirdly, the social integrationist discourse (SID) which focuses on paid work, economic inactivity, unemployment, and the pursuit of social integration via paid employment (Levitas 2005). SID constricts the meaning

of social exclusion by equating inclusion with participation in paid work and obscures: the inequalities amongst paid workers; the inequalities between workers and those that own productive property; as well as, the inequalities between female workers who are likely to earn less than men (Levitas 2005). Thus, according to Levitas (2005) SID does not imply that benefits can reduce poverty. Therefore, RED, MUD and SID collectively appreciate social exclusion as a manifestation of: (a) citizenship calling for redistribution of power and wealth to battle poverty; (b) lack of access to paid work; and (c) moral deficiencies of typologies of family structures who encounter social exclusion.

All this work reveals that the concept of social exclusion is nebulous, as the differences between these discourses do not permit a consensus on the concept. Poverty (seen as a dimension of social exclusion) refers to the inability to have attributes that are considered normal by the society as a whole (Levitas et al. 2007). According to Eberharter (2011), publicly financed educational systems contribute to a higher social permeability, and “to be engaged in academic, scientific, or professional occupations significantly lowers the relative poverty risk” (Eberharter 2011, p. 295). Although the concept of social exclusion is undoubtedly linked to poverty, it transcends the state of simply being poor.

Further exploration of the concept indicates that social exclusion relates to people suffering from poor skills (SEU 1997); a process by which people become socially differentiated and unequal (ESRC 2004); a process of excluding people from social and cultural systems which permit individuals to integrate into society (Walker and Walker 1997), for reasons beyond their control, which prevent them from taking part in normal citizens activities in a society (Burchardt et al. 2002). So, social exclusion is seen more as a *process* than a *state* (Levitas et al. 2007), which suggests the possibility of positive transformation, given appropriate initiatives and policies. Provided that the necessary policies and tools are in place, the process of social exclusion can be eradicated so that those affected can enjoy the benefits of inclusion.

## An Understanding of Social Inclusion

To better comprehend the phenomenon of social *exclusion* the World Bank defines social *inclusion* as the “process of improving the terms for individuals and groups to take part in society”...and “the process of improving the ability, opportunity, and dignity of people, disadvantaged on the basis of their identity, to take part in society” (The World Bank 2013, p. 50). So, *who* should be included in *what*? According to the World Bank (2013), the three domains of social inclusion which also present opportunities and barriers to inclusion are spaces (including political, physical, cultural and social spaces), markets (including land, housing, labour, and credit) and services (including social protection, information, electricity, transport, education, health and water). The World Bank developed the Propelling Social Inclusion Framework (PSIF), a model operationalizing social inclusion which proposes that facilitation of inclusion in markets spaces and services can be achieved by: (a) mediating the *ability* of individuals to access/participate in markets, services, and spaces; (b) policy attention to investments that equalize *opportunities* of individuals at various life stages, to access/participate in markets, services, and spaces; (c) promoting people’s *dignity* through reducing instances of disrespecting individuals and increasing opportunities to recognize their identities and requirements to be socially included (The World Bank 2013).

PSIF appears to be a useful tool in our effort to operationalize social inclusion. As education develops human capital, one of the tools of the operationalization of social inclusion is higher education. This chapter proceeds to apply PSIF in the context of higher education, where PBL is utilized to stimulate students’ abilities and provide opportunities for skills development, which provide graduates with access to labour markets, and cultural/social spaces. This perspective acknowledges the need to ensure the role of higher education as an enabler of social inclusion of students and other members of society.

## Perspectives of Social Inclusion in the Context of Education

The meaning of social exclusion in (UK) higher education has been confronted (see Alexiadou 2002) and discourses of policy as the governing structures for research have been challenged on the basis that they are not critical enough (see Popkewitz and Lindblad 2000). To this end, Amartya K. Sen (winner of the 1998 Nobel Prize for Economic Science) (1979, 1990, 1992, 2000) developed the Capabilities Theory (CT) that focuses on how distribution of capabilities generates social inclusion, which can be applied to the context of education. Sen's work (2000) reveals a typology of social exclusion caused by capability failures. Sen identifies: (a) *Constitutive deprivation*, which refers to social exclusion (an intrinsic fundamental part of deprivation), due to lack of access to things such as social relations, community life; (b) *Instrumental deprivation*, which refers to lack of access which may further result in supplementary deprivation of opportunities and advantages; (c) *Active deprivation*, which refers to the deliberate exclusion of groups, by the authorities; (d) *Passive deprivation*, which is an outcome of social circumstances rather than a deliberate attempt to exclude (Sen 1979, 1990, 1992, 2000).

The merits of CT in helping to comprehend ways of improving social inclusion are numerous. In essence, the CT approach, rather than generating a conclusive list of capabilities that individuals should develop in order to enjoy social inclusion, recognizes the links between the position of an individual with economic, social, political, and cultural circumstances (Vizard and Burchardt 2007); identifies what individuals themselves can do if they have access to the same set of goods (Sen 1979); identifies how to attain well-being in relation to individuals' capabilities (Robeyns 2011); recognizes what is of intrinsic value in life, rather than on the "goods that provide instrumental value or utility" (Pressman and Summerfield 2000, p. 9); and illustrates an approach to well-being that concentrates on freedom to achieve and ability to function (Saito 2003).

Sen views capabilities and functioning of individuals to improve their chances of social inclusion. A *functioning* is an achievement, whereas a *capability* is the ability to achieve. Functioning is, in a sense,

more directly related to living conditions, since they are different aspects of living conditions. Capabilities, in contrast, are notions of freedom, in the positive sense: “what real opportunities you have regarding the life you may lead” (Sen 1987, p. 36). Dreze and Sen (1995) explain that education, which is a feature of good quality of life, broadens humans’ capabilities because it enables individuals to become autonomous (White 1973). The CT perspective suggests that education functioning generates freedom and autonomy capabilities for individuals (to pursue well-being) which play a role in social change and influence economic production. In effect, “education enables people to yield capabilities, and these capabilities can be the means to develop economic growth, and again economic growth enables people to attain further capabilities” (Saito 2003 p. 32).

The sections that follow address the question of how CT guides us in addressing the production of desirable capabilities to inspire and generate social inclusion and propose a pedagogy which provides disadvantaged students the ability and opportunities to take a full part in society.

## The Pedagogy of Problem Based Learning

### The Purpose and Process of PBL

According to Barrows (2000) and Torp and Sage (2002), PBL is focused, experiential learning organized around the investigation, explanation, and resolution of meaningful problems. Yew and Goh (2016) define PBL as a pedagogical approach that empowers students to learn while actively engaging with meaningful problems which need a resolution. The Faculty Development and Instructional Design Centre of Northern Illinois University, states that the problems are authentic tasks, solved in socially and contextually based teams of students. The students rely on their current knowledge of the problem and identify “information they need to know to solve the problem, and the strategies they use to solve the problem” (Stanford University Newsletter on Teaching 2001). In Vignette 13.1, the purpose and process of PBL are described as well as current perspectives on problem solving and instruction.



### Vignette 13.1: The Purpose/Process of PBL and Perspectives of Problem Solving and Problem Posing in Instruction

PBL curricula offer students the experiential opportunity to learn through solving complex real-world problems (Hmelo-Silver 2004). According to Barrows and Kelson (1995), PBL curricula are designed to facilitate students to build a flexible and extensive knowledge base, to develop competency in problem solving, to acquire skills of self-directed study, collaboration and lifelong learning, and to become intrinsically motivated to learn. PBL activates prior knowledge to create new knowledge, provides learners with mental models to solve new problems, integrates new knowledge to existing knowledge and facilitates the application of new knowledge and skills (Merrill 2002). Problems become “a canvas on which various types of information are combined and arranged to resolve an issue or dilemma” (Carter 1999 p. 167). Problems frame the learning process, drive and provide purpose for learning (Jonassen 2011), and reveal the underlying principles/concepts of a knowledge area (Stepien and Gallagher 1993). With the PBL approach, learners discover knowledge by working collaboratively and by applying their higher-order skills of critical, creative, and reflective thinking (de Graff and Kolmos 2007). So, the aim of PBL is to integrate different subjects and branches of knowledge grounded in experiential, collaborative, contextual, and constructivist theories of learning (Savin-Baden and Major 2004; Yew and Goh 2016). Some of the contexts of PBL applications include K–16 and middle school education (Hmelo-silver 2004; Haruehansawasin and Kiattikomol 2018), medical, pharmacology, health related, nursing and clinical practices studies (Jin et al. 2015; Korpi et al. 2018; Liu et al. 2019; Stanton et al. 2017; Wosinski et al. 2018), teacher training (Kuvac and Koc 2019; Hartman et al. 2018); engineering (Hirshfield and Koretsky 2018); accounting studies (Wyness and Dalton 2018).

#### *The Process of PBL*

According to Hmelo-Silver (2004), normally with PBL, students work in small collaborative groups and learn what they need to know in order to solve a (real-life) problem. Learners are offered an ill-structured problem (that does not have only one solution), focusing on learning information and reasoning strategies. They are responsible for identifying facts, generating ideas and learning issues, self-directed learning, revisiting and reflecting upon the materials. A facilitator manages the learning process and models the reasoning. While working in groups, learners negotiate ideas, and based on the outputs of reflection and self-directed learning they bring new knowledge to the group for application to the problem (Hmelo-Silver 2004). Guided student learning takes place during the PBL tutorial, as described by Hmelo-Silver (2004, p. 236–7):

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**Vignette 13.1** (continued)

the students are presented with a problem scenario. They formulate and analyse the problem by identifying the relevant facts from the scenario. This fact-identification step helps students represent the problem. As students understand the problem better, they generate hypotheses about possible solutions. An important part of this cycle is identifying knowledge deficiencies relative to the problem. These knowledge deficiencies become what are known as the learning issues that students research during their self-directed learning (SDL). Following SDL, students apply their new knowledge and evaluate their hypotheses in light of what they have learned. At the completion of each problem, students reflect on the abstract knowledge gained. The teacher helps students learn the cognitive skills needed for problem solving and collaboration.

During the facilitated learning process, the teacher/facilitator acts more like an expert learner, capable to model good strategies for learning and thinking, rather than an expert in the content itself, encourages learners to justify their rationale and directs appropriate questions to learners (Hmelo-Silver 2004). According to Hmelo-Silver (2004), the stages of the learning process are: setting the problem scenario, identification of the facts, generation of hypotheses, identification of knowledge deficiencies, and application of new knowledge.

*Perspectives of Problem Solving, Problem Posing and Instruction*

Problem solving (PS) is central to PBL pedagogy. Problems fit for PBL are open ended, complex, affording feedback, promote argumentation (Hmelo-Silver 2004); a stimulus of an authentic activity, generating hypothesis, requiring collaborative effort (Dabbagh and Dass 2013); ill-structured (Jonassen 2000), and dynamic (Jonassen 2011). PS is the process of problem identification, problem description, problem exploration, applicability, and integration (Garrison 1991), operationalized in a group activity (or tutorial) environment. PS is also seen as an educational goal, an educational method, or as a skill (van Merriënboer 2013), in other words a capability (potentially ideal for final year and masters level curricula).

According to van Merriënboer (2013), educators who see PS as a goal, may adopt knowledge-based methods where learners refer to their interpretation of domain knowledge and their experience with cases they have encountered in the past, to generate new knowledge. In this approach, learners may use their knowledge to generate problem solutions, either by utilizing their understanding of how concepts are interrelated, or how they affect each other, or how they are organized in a knowledge domain (van

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**Vignette 13.1** (continued)

Merriënboer 2013), or by using past memories to develop analogies, that help them come up with possible solutions to the problem (Jonassen 2002). Alternatively, when educators utilize real-life problems in their PBL pedagogy, learners apply a what-if approach to their knowledge-based methods for non-routine aspects of problem solving (i.e. decision making, reasoning) (van Merriënboer 2013).

Educators who view PS as a method may adopt goal-free problems, completion problems, or worked examples in their PBL approach (van Merriënboer 2013). van Merriënboer and Sweller (2005) explain that with goal-free problems, learners identify a new problem state (for which they find a solution), as a step towards solving the original problem—a method that minimizes the working memory overload of learners. According to van Merriënboer and Sweller (2005) with worked examples, learners become enabled to construct cognitive schemas by focusing on associated solution steps, and with completion problems, learners work on problems for which possible solutions or goal states are offered, inviting them to complete the solution.

The skills students develop via problem solving comprise drawing inferences and logical reasoning, leading to a general understanding of the problem (Kamin et al. 2001). Educators who view PS as a skill, enable learners to develop non-routine aspects of PS behaviour such as conscious decision making (strategies to approach problems systematically) and reasoning (applying domain knowledge to come up with problem solutions) (van Merriënboer 2013). In addition, they help learners develop recurrent skills, which are behaviours consistent across various PS situations (van Merriënboer 1997), as well as non-recurrent skills, which are behaviours that differ from problem situation to problem situation (van Merriënboer 2013).

The above perspectives on PS affect the styles and outcomes of PBL instruction. The adoption of PS prior to instruction may activate and differentiate learners' prior knowledge (Kapur 2015), which offers learners opportunities to discover the limits of their own knowledge (Loibl and Rummel 2014), and to encode important elements of a new concept by comparing student-proposed solutions and correcting them during the later stage of instruction (Kapur 2014). Problem posing (PP) is seen as the extension or reformulation of a given problem (Silver 1994), or the generation of new problem from a given situation (Kapur 2015). PP leads to greater learner reflection and agency (Kilpatrick 1987) and reduces learner stress (Brown and Walter 2005). All this work signals the value of using PS and PP prior to instruction, especially if the learning goals require students to develop the skill of learning what to question in a given situation.

(continued)

**Vignette 13.1** (continued)

Learning how to raise questions to scrutinize circumstances or the status quo can be a useful skill for engaged citizens.

PP and PS activities facilitate guided student learning during the PBL tutorial process. During a PBL tutorial, in addition to selecting the appropriate problems (and PP activities), facilitators model problem-solving skills needed for comprehension and reasoning (Hmelo-Silver 2004) and use scaffolding techniques in their instruction. According to Hmelo-Silver (2004), PBL instruction techniques assume that the goals described in this vignette are achieved as part of the PBL learning cycle, and when necessary instructors may modify instructional techniques (i.e. use direct instruction) when addressing learners whose skills vary. Thus, facilitators may find the need to modify their scaffolding approach during instruction. Scaffolding is defined by Haruehansawasin and Kiattikomol (2018, p. 363) as a “temporary support provided for learners during the learning process to help them achieve their goals”. The scaffolding strategy adopted by facilitators may affect the effectiveness of the PBL approach (Greening 1998).

## Methods and Contexts of Applications of PBL

With PBL, students become responsible for their learning, which requires them to reflect and think critically about what they are learning (Bereiter and Scardamalia 1989). Reflection and critical thinking contribute to the development of capabilities that enable individuals to disrupt their exclusion from the social and economic fabric of society, and offer them opportunities to fit in. Numerous works reveal how PBL develops such capabilities.

Rasi et al. (2013) exposed their study subjects (Iranian single mothers who faced financial and social fit difficulties) to a PS model for an intervention period of a few months, which generated positive results. The single mothers developed PS skills (see Vignette 13.1) for self-management, learned how to better manage the family finances and relationships, enhanced their reasoning in life-management and enhanced their achievements in life (including professional skills, and capabilities of better managing social relationships). The subjects reported increased levels of self-confidence, enhanced ability to manage their work lives and

many of them identified opportunities and made plans to start their own (or new) professional paths. In this instance, the PBL application seemed to generate concrete and positive outcomes for vulnerable (or excluded) individuals. In view of the PSIF model, the application of PBL on training offered to the specific group of socially vulnerable individuals generated opportunities to improve their abilities to participate in markets (i.e. labour) to which they had limited access, and opportunities to access services (i.e. information and education) that helped them to become active in the broader social space (communities). However, the choice or design of the problem must be carefully planned to fit the purpose of learning in order to generate maximum positive outcomes. In this case confidence building was achieved, which has the potential to improve the dignity of the study subjects.

We can learn more about the utility of PBL in increasing the capabilities of individuals to access higher education, by looking at studies with younger populations. For example, work by Stone and Foreman (1988) on problem-solving tasks among learning-disabled adolescents (term used to describe ninth graders scoring between 85 and 115 in WISC-R full-scale IQ, with below the local norm in reading or maths results over a period of 2 years, and receiving learning difficulty school services) indicated positive results in increasing students' reasoning and articulation.

We argue that with vulnerable populations, the choice or design of the problem must be carefully planned to fit the purpose of learning in order to generate maximum positive outcomes. Learning more about the problem-solving skills of learning-disabled adolescents (LDAs) can facilitate parents and practitioners to aid LDAs better plan their professional and educational lives (Stone and Foreman 1988). Their study indicated that by clustering subjects into problem-solving groups, they were able to identify how the profiles, as well as the strengths and weaknesses of PS skills, varied across the clusters, leading to the conclusion that in cases of complex PS tasks, cluster analysis can be used to identify differential patterns of performance of LDAs. To provide better service to LDAs, Stone and Foreman (1988) recommend the identification of differential patterns of difficulty of learners, so when learners fail at different stages of the PS task, educators may intervene with tailored instructional goals or techniques to improve their capabilities. This lesson can be particularly

useful to higher education institutions, which may be interested to identify methods of PBL suitable for students with learning difficulties. The evidence from other educational contexts on the successful impact of the PBL technique of clustering indicates that certain PBL techniques are effective to resolve complex problem solving. This lesson can be particularly useful to higher education institutions interested to identify PBL methods suitable for students with learning difficulties.

The utility of PBL applications is greatly appreciated in higher education (HE). HE institutions apply PBL techniques to improve the learning, knowledge, and understanding capabilities of their students (as seen in the examples of Beacon College and Nottingham Trent University that follow) with success in aiding students of all levels of vulnerability to develop skills and increase their capabilities, which enable them to fit in and thrive in society. Vulnerable students (i.e. students with learning disabilities, international students who may not have a perfect command of the language of instruction, or students of limited pre-higher-education attainments) may struggle to fit into university life and may feel excluded.

The success of PBL in HE settings may be affected by the tools used, the way the curriculum is designed, and student attendance. Bijmans and Schakel (2018) explored the effect of students' (non)attendance on their first year of study success in programs that actively utilise PBL, at the University of Maastricht. Their work revealed that student attendance contributes to success in a PBL program and leads to higher grade point average (GPA) achievements and higher ECTS (European Credit Transfer System) achieved. Students from lower socio-economic groups tend to have poorer attendance records and this reinforces their exclusion because it contributes to their weak performance. Higher GPA and ECTS achievements contribute to social inclusion of graduates providing further access opportunities to regional and international employment markets. The importance of student attendance for the effectiveness of a PBL learning community is appreciated (see Loyens et al. 2012), since PBL "builds upon the collaborative learning by assuming that deliberation and discussion advance knowledge and understating" (Maurer 2015, p. 372). Furthermore, some of the instructional tools utilized in (HE and secondary education) PBL which generate positive results in increasing learners' capabilities include case studies (Yoo and Park 2014), web-based PS

activities and online searching (Kim et al. 2002; Jin et al. 2015), digital games (Yang 2012), and the adoption of PBL as the central pedagogy of a full program are predicated on active participation (attendance).

### **Case Study 1: Learning Model of Beacon College**

Beacon College (BC) is an accredited, liberal arts institution of higher education, which exclusively serves the educational needs of students with Learning Disabilities, Attention Deficit Hyperactivity Disorder and other Learning Differences, offering programs in the arts, sciences, business, and technology (Beacon College Mission Statement 2020). Instructional decisions at BC centre on the unique student population and what works best for a specific discipline. In a number of modules, BC staff sticks solely with PBL, supported with active learning and other authentic assessments, due to the positive results these methods generate. BC staff employs only authentic assessment practices with an emphasis on PBL, in science courses. The instructional design does not employ test or quiz methods in these courses, instead assessments are designed in a way that permits students to apply their knowledge using real-world skills.

Due to the nature of its student population, BC incorporates PBL in most of its modules, but not to the entirety of its programs. According to a learning specialist of the college, “This is especially helpful when working with students who have ADHD, as, due to dopamine dysfunction and consequent altered reinforcement, they literally see and interpret environmental events differently (which is both a blessing and curse, making them either successful as entrepreneurs and innovators or increasing their chances of getting in trouble with the law). The opportunity to offer their unique perspective without a fear of being ‘wrong’ is one of the most valuable experiences that a college classroom can give them. As a result, engagement in PBL activities (no matter how limited) decreases escape behaviour: students are usually less likely to skip classes or avoid participating”. Consequently, PBL aids students to achieve better participation in their program.

BC instructors and learning specialists agree that the PBL approaches operationalised in the College are inclusive and supportive of student

needs. During PBL team work seminars and activities, students with stronger skills and abilities assist their peers who are weaker, and students learn from each other and their instructor. Instructors closely monitor peer interactions. Staff is aware that as several students may have no prior “belonging” experience (peer, academic, or institutional), they have a harder time at the beginning of the PBL cycle. Consequently, learning specialists facilitate initial introduction among and between students to make sure that the group is working well together. Staff agrees that the adoption of PBL techniques not only greatly increases content comprehension and retention, but holistically develops students to enter the real-world. At the same time, BC instructors ensure that almost every module offers a more traditional version of the same material for those students who are not ready to engage in PBL. Accordingly, due to the employment of discipline-specific practices, the success rates of BC far surpass the national averages. PBL builds capabilities which generate functioning that aids students develop employability skills and consequently access to markets. Examples of how PBL is applied at BC are presented in Vignette 13.2.

### **Vignette 13.2: PBL Examples at Beacon College**

#### *Example 1*

One example of PBL at BC is in the module of Human Services Senior Seminar, designed (amongst other things) to engage students in conducting psychological assessments, analysing psychological perspectives and human development theories, identifying and diagnosing mental disorders, researching courses of treatment, and designing effective treatment plans. By the end of the module, students can evaluate interventions and develop levels of self-awareness and critical thinking. The objective of PBL in this module is to aid the students to learn how to function as a member of a Human Services Treatment Team, in classes of ten students. A client in need of treatment to help resolve his/her issues is the focal challenge. Student teams are invited to research their roles to diagnose the client, to formulate treatment, and to evaluate recommended interventions. The problems posed are ill-defined and do not have clear-cut right answers. Through this PBL approach, students develop solutions, exercise their critical thinking, manage time and meet deadlines, skills that are essential to human services worker in action. A BC instructor of the Human Services

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**Vignette 13.2** (continued)

Senior Seminar explained that students “have to make judgments, interact with others, and do something that others can observe and evaluate... (the PBL seminar) .... provide students with opportunities to apply their discipline-based knowledge and skills”. The PBL approach adopted for this module meets Wiggins (1989) view that authentic assessment gets students involved in learning. So, PBL builds capabilities that help battle instrumental deprivation.

*Example 2*

Further examples of PBL practice which have demonstrated significant improvement in student performance against standard institutional metrics are in *Florida Ecology and Conservation* course (a required general education module), and *Conservation courses* (major specific modules). In these modules, students work in teams to examine local environmental issues and create conservation campaigns for the college campus (which helps students to gain insight into some of the steps required to create a non-profit organization). In the Florida ecology module, the work is done in partnership with local agencies and/or biologists, depending on the issues selected for the semester. Students collect data throughout the semester, construct a plan to mitigate impacts or to improve the quality of the habitat, and deliver town hall-style meeting presentations where they try to create a positive change in the local community. In the conservation module, students develop a conservation and land management plan for the College’s additional property. The PBL practices enable students to understand the nature and process of science by experiencing it first-hand. Staff connects the content of the course to the projects, which greatly enhances a students’ comprehension of the material. These practices prepare the students to work in the real-world and are an example of how PBL helps fight constructive deprivation.

At BC, PBL applications are oriented towards creating an environment which facilitates students’ experience of all three types of belonging: peer, academic, institutional. According to a Learning Specialist (LS) of the college, what is unique about the student population of BC, is that... “very often these three types exist independently of each other: a student may have many friends (peer belonging), but no anchors among the faculty (no academic belonging) or avoid participating in college-wide activities altogether (no institutional belonging). Not that this is an unlikely situation with more neuro-typical students, but in our case a success with one type of belonging does not usually generalize to the other two.

Making students work together on real-life problems calls for all three to be in place: ‘I need to work with other people (peer) on a problem that requires understanding and decision-making (academic) on a par with other colleges (institutional)!’ (LS). According to a Beacon College Science instructor, social inclusion is a critical aspect of social development of students of earlier levels of study, who may have been limited in their ability to work in a team or social environment. PBL practices at Beacon College help students develop the skills needed to work confidently in a team environment under a structured format and create a culture that combats passive deprivation.

PBL at Beacon College supports social inclusion because of its special mission to serve the educational needs of students with learning disabilities: “committed to student success, offering academic and personal support services that help each student achieve his/her goals. Beacon College is truly a community, welcoming, accepting, and supporting each member of it” (The Beacon Difference 2020). Because of the variety of disabilities some students are impacted more severely. The PBL practices facilitate the development of real-life skills in a supportive environment that prepares students to contribute to society. The system cultivates students in the human services specialism with the desire to help others. Students work collaboratively and receive the intrinsic benefit of assisting others while being helped to grow with peer support. Although the BC students may be seen as a limited sub-set of deprived individuals in a specialized institution, the examples of effective application and positive outcomes of PBL signal its applicability to not only mainstream but to specialized contexts of higher education as well. In other words, although these examples spring from a specialized institution, the success of PBL indicates that if applied in a wider system the results will be positive too.

## **Case 2: PBL at Nottingham Trent University**

The Business School of Nottingham Trent University (NBS) applies PBL across several programs and modules. Module design uses a combination of lectures and seminars. Most seminars adopt PBL in their design and delivery and engage students in a series of PP and PS of activities (see Vignette 13.1). An example of cross-school PBL application at NTU is

the annual Thinkubator Challenge®. The challenge provides organizations access to free expertise, to support business growth, by engaging students in PS activities that offer solutions to participant organizations (see Vignette 13.3).

### **Vignette 13.3: PBL at Nottingham Trent University: The NBS Thinkubator**

#### *Purpose of the Thinkubator Challenge®*

With NBS's mission of being a Business School for business, the School wanted to open its doors to the wider community and say ... "throw us your challenges and we will put our students to work. The challenge is about enhancing student learning and is also about connecting those things about experiential learning and PBL, which we say that we do" (Associate Dean of NBS: AD). According to the Director of Undergraduate Taught Programmes (DUTP), 25% of the NBS student population come from lower-income families and 25% come from the top end so promoting the event to all equalizes opportunities for all. The challenge aims to ensure that students are enabled to apply what they know to a real-world situation; recognize that what they are learning is relevant to the outside world; and to recognize they have knowledge and skills which they can start to apply even before they graduate. The objective of the challenge is to enhance the student experience by applying the PBL approach of the School in a consolidated piece of work. For participant firms, the challenge offers master classes to their representatives and provides networking opportunities with field experts and other industry prospective partners. The challenge attracts media attention and according to the Associate Dean of NBS, "the reason of making it big and making a splash about it was very much about having that message that we are inclusive!"

#### *Process of the Challenge*

Clients send a short brief of a business problem with which they are faced. A special School Team vets the brief to decide if the Thinkubator would be the appropriate outlet to address the problem (e.g. if the problem can be resolved within 2–3 hours the clients are offered a consultancy project). According to the DUTP, "we do quite a lot of work to ensure we are working with a challenge proposal that is suitable and accessible and at the right level and meets our needs and the needs of our students". The School Team assigns students who volunteer in balanced, mixed teams of undergraduate and postgraduates, of various business disciplines. Students are not selected on the basis of their grades, attendance score, or ability but on the basis of their diversity of levels of study and discipline focus. That makes the groups inclusive. Students are expected to work together in small teams. They are not exposed to the problem in advance and come to

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**Vignette 13.3** (continued)

the event without any prior knowledge of the nature of the challenge at hand. The challenge is accessible to all students (including students with visible disabilities). On the day of the event, the clients pitch their imperfect complex problems to 2–3 groups of students (no more than a total of 18) and after a short Q&A session leave the seminar room to attend a master class. Thereafter, students work for 2–3 hours to solve the problem. An allocated tutor applies scaffolding techniques to guide the students through the steps to reframe and solve the problem. During the challenge, the problem-based learning cycle (see vignette 13.1) is applied. At the end, students develop presentations of their solutions and pitch them to their client. The challenge ends after a final Q&A session that assists the client to achieve clarity of all student proposals.

*Benefits of Participation to Students and Firms*

Via their participation in the challenge, students get the opportunity to: work in cross-disciplinary teams; conduct PP and PS in a real-time setting; conduct research on a real problem and develop a professional pitch addressed to business representatives or owners; put into practice what they learn in class; learn how to identify problems and how to articulate them clearly; break down and analyse different aspects of the problem; applying different theories and concepts to identify better solutions; spend an afternoon of experiential learning which mirrors the skills they will need in the workplace; meet students they would not normally do via their classes and make new friends; develop a new item on their CVs; experience a situation similar to the challenges posed in graduate scheme interviews; become more aware of the employability skills they need when they graduate. Indeed, the challenge “places them in situations they will find themselves in the future... I think it can be quite confidence building, it adds to their creativity, it helps them to think on their feet” (DUTP). Other benefits include the fact that the challenge does not require a huge time commitment.

In the future when students go for a job interviews, they can talk about the experience of working with an organization with a real problem. At the end of the challenge, students are offered a CPD certificate and keep the T-shirt they used during the event. Especially for international students the challenge offers them an opportunity to experience UK businesses. Sometimes, international students are completely inexperienced or come from family business backgrounds and wish to experience how business is conducted in other types of firms and countries. In many cases, “this will be their first introduction to a real live exposure to a senior manager or company representative and discussing real life problems” (Thinkubator Tutor). At NBS, there is a high proportion of international postgraduate students

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**Vignette 13.3** (continued)

who have “never presented (any of their work to an audience) because the education systems they come from, maybe do not allow it” (AD). The challenge offers them presentation pitch opportunities outside the classroom and a simulated work experience which they could not have received due to work visa restrictions. More importantly, the challenge offers a sense of community and belonging to all participants, irrespective of ability, disability, background, or experience.

For firms, the challenge offers access to ideas, appropriate problem framing, solutions, and advice, which would not be afforded by micro companies and start-ups. The challenge event becomes a centre of knowledge dissemination and a community of knowledge sharing, which empowers smaller firms to grow and flourish in a dynamic and highly competitive market environment. Larger organizations benefit from a better understanding of the skills university students are currently mastering, which helps them develop realistic expectations of new candidate employees.

*Promotion of Inclusivity*

The challenge is designed to be inclusive: “it’s very set up is inclusive. None of the challenges require anything physical. They are desk based challenges and they are all in a classroom setting ... students don’t have to go out and about or anything like that ... the other thing is that the challenge owner comes into the session and introduces the challenge ... so, there is no copious reading material which could be difficult ... so even for students with dyslexia or international students, who need to read a bit slower, or who might need to translate as they read ... the fact that it is verbal and is in the moment, makes it more inclusive and accessible” (DUTP). To promote the event to all students, and to widen the call for participants, mentors, student reps, and course leaders encourage students to participate, especially those who may find the challenge intimidating. The internal promotions are encouraging to motivate students who are not confident to attend and benefit from the process. Finally, the instruction method itself is inclusive as: “I think that it (PBL) brings together the theory and practice nicely but in terms of social inclusion, I think... if they (students) are all coming from a different place ... then we are not excluding somebody ... because in classrooms you have people who bond and come together ... in my experience you have the international students who are kind of separated and excluded, but if you pluck an individual out of their comfort zone and put them in with a bunch of strangers they do pull together ... they are not going to exclude one person because all of them could be excluded... I think there is less exclusion... there is less possibility of exclusion and because groups are small ... they (students) are outside of their classroom environment as well... I think it is to the benefit to any of these minority groups” (Thinkubator Tutor).

## The Effects of PBL in the Facilitation of Social Inclusion

Previous sections of this chapter revealed the ontology of social inclusion, the pedagogy of PBL and discussed how PBL is applied in different contexts. This section discusses the effects of PBL in Social Inclusion. Reviewing the cases of BC and NTU, the question of how the two institutions contribute to social inclusion by applying PBL arises. In operationalizing its mission to cater for the needs of students with learning differences (or difficulties), BC applies PBL methods across modules and programs which helps to improve the functioning and capabilities of its students. The College tackles the social exclusion of its students (who may in some contexts be disadvantaged by their identity) from the employment market, by improving their ability and opportunity to take part in society via applied projects and collaboration with other organizations. The application of PBL inspires BC students not to miss classes and engages them more actively in university life. In this way, the College addresses passive deprivation (i.e. exclusion from quality higher education) and constitutive deprivation by offering students access to social relations that develop in learning communities (i.e. sources, groups) that inspire them to develop their capabilities.

The case of NTU demonstrates that social inclusion is facilitated by offering small firms and start-ups the opportunity to benefit from students' knowledge in specific areas, to develop the business for entrepreneurial sustainability and the creation of jobs. NTU PBL practices, such as the NBS Thinkubator, create different opportunities for social inclusion of students and entrepreneurs. For entrepreneurs, the program offers small, micro, and new firms opportunities to develop their business and to compete successfully. In terms of the FPSI, the NBS Thinkubator offers entrepreneurs and small firm executives opportunities to access cultural spaces of educational and information services, which enriches their abilities to conduct business effectively. Consequently, the program helps reduce constitutive and instrumental deprivation of these entrepreneurs.

The PBL approach of the NBS Thinkubator offers social inclusion opportunities to students through the opportunity to develop

demonstrable capabilities to work in multicultural, cross-disciplinary, and mixed ability groups to generate solutions to complex, ill-defined, real, and challenging problems. The tutor scaffolding techniques applied to PP and PS activities relevant to the real cases provided by students' clients are useful pedagogical tools that enrich students' capabilities. Such capabilities enhance students' chances of getting ahead of others in the employment race.

Effective social inclusion in higher education has implications for relations within the local and wider community. From an FPSI perspective, HEIs can build links between the position of individuals (i.e. students) and economic, cultural, and social circumstances, which enable them to feel like respected (and included) members of society. The cases of BC and NTU demonstrate that HEIs which apply PBL help students identify what they can do to solve real-life problems, and in many cases contribute to improving the world they live in. The current post-degree employment 1 year after graduation of Beacon College is 83%. This includes both those going on to their first employment and approximately 15% who pursue graduate or other advanced study. The College is justifiably proud of this figure in the context of the following: (1) BC student profile of LD, ADHD, and Autistic Spectrum Disorder (ASD); (2) the majority of BC students were advised that they could never succeed in college; and (3) BC nation-leading outcomes, including post-degree employment, are striking given the lack of employment opportunities for individuals with disabilities worldwide.

In NTU the links between students and social institutions which advance social inclusion is evident. For example, one of the NBS Thinkubators was held at the UK House of Parliament, where MPs (rather than firms) presented students with challenges relevant to socio-economic problems of deprived areas in the UK. The PBL methods generated outputs of policy change consequences. Business and social sciences students worked together to propose new policies aimed at improving the lives of the constituents of those areas. The representation of the student teams was diverse and many of the students originated from resource-deprived areas. The challenge became (a) a process of facing students' own vulnerabilities in recommending policies for improving inclusion for their fellow citizens; and (b) a cultural system that

enabled students to integrate into society by offering them a voice to defend their vision of positive social change. The challenge offered (partially) publicly financed (HEI) institutions the opportunity to be engaged in an academic process that lowers the risk of poverty and deprivation by generating policy that improves the lives of local communities, making PBL a relevant tool that tackles social exclusion.

The PBL practices adopted by BC and NTU offer all their students the ability and opportunity to take active part in society by engaging them in PS activities relevant to the needs and realities of other units of society (i.e. firms, individuals, entrepreneurs, and social groups). One of the consequences is the students' sense of belonging and dignity, which results from the abilities and opportunities provided by the application of PBL pedagogies.

However, for some groups PBL poses additional challenges and requires awareness of educational "gaps", and recognition of students' social and cultural sensitivities. The education attainment gaps of socially excluded individuals may hinder their motivation to engage in PBL, as they may lack the confidence to engage in working groups. The challenge for HEIs to engage those students may be substantial and may lead curriculum designers to consider ways of integrating these students in PBL working groups. Students' cultural and social sensitivities depict complex issues in the wider social inclusion debate, which need to be addressed by curriculum design. Not all PBL tools will be equally effective in increasing capabilities of learners whose social or cultural sensitivities are challenged in accessing the resources necessary and in the use of the specific tools. For example, applying PBL across the entire program curriculum may not benefit students who have limited secondary education attainments and may need substantial instruction to acquire subject-based knowledge, before they are able to work on solving problems. Therefore, PBL inspired curriculum design and teaching methods should be matched to students' social and cultural sensitivities and background, even if this means the development of formal foundation programs that help students build skills that facilitate their progression at university.



## Emerging Propositions: PBL Curriculum Development to Inspire Social Inclusion

The Capabilities Theory (CT) approach guides us in identifying a range of capabilities that students should require to improve their opportunities for social inclusion. PBL curriculum design and teaching methods may facilitate social inclusion so long as the social and cultural sensitivities of learners are appreciated. The learners' special needs, their voice and ideas which may result from a specific ethnic-cultural tradition, gender, prior and current poor educational attainments, personal battle with poverty, addiction or illness, expectations for specific functionings which will give them access to markets and services are some of the sensitivities which need to be respected, in higher education geared to offer opportunities to feel respected, and honour their dignity. In view of these sensitivities, we make a series of propositions of the utility of PBL in inspiring and generating social inclusion:

- Individuals who are persistently poor can be excluded from access to education and other services. The UK Office of national statistics defines persistent as “experiencing relative low income in the current year, as well as at least 2 out of the 3 preceding years” (ONS 2017). To meet the needs of persistently poor individuals (see Bradshaw et al. 2004) we propose the adoption PBL activities designed to be implemented in lifelong learning university programs, which will result in the improvement of the employment prospects of individuals. These can be continuous development programs which may lead to university entry, or to the creation of functionings which may equip learners to pursue future employment. The programs may focus on building capabilities in technical knowledge, an ability to collaborate, time and people management, as well as learning how to learn. Governments and HEIs could collaborate to provide funding and space for the roll out of the programs, in an attempt to (as per PSIF) make universities spaces which offer access to markets. This proposition offers institutions the chance to put in place initiatives and policies that support the

idea of Levitas et al. (2007) which appreciates social inclusion as a process of positive transformation.

- In view of the sensitivities of vulnerable student populations who may face addiction-related or mental health challenges, it may be reasonable to propose the adoption of PBL in the wellbeing support services universities offer. These may be co-curricular learning activities to improve psychological well-being which may help to build capabilities for managing emotions, managing time, coping with stress and addiction. Such activities could include confidence building, emotional coping, and learning how to live in the moment (mindfulness) exercises, incorporated in PBL workshops (as in vignette 13.1). In terms of PSIF these activities may strengthen and promote students' dignity and improve the overall student experience (a major priority of many UK universities), by enabling learners to develop themselves and feel supported by the university communities in which they belong.
- For weaker or low attainment students who may feel excluded from their cohort, we propose the development of PBL study skills activities, which will develop students' capabilities relevant to their discipline. The potential outcome of these programs will be to reduce or eradicate students' attainment gaps. In the case of student with learning difficulties, we propose clustering students into more homogeneous PS groups to facilitate the development of capabilities of students with varying severity of disability.
- The societal need for continuous professional development is present in dynamic professional environments. Embedding PBL activities in CPD stimulates individuals' abilities to cope and manage change in their professional environment.
- For international (or visiting) students, and educational migrants, we propose the development of PBL-based events (as in Vignette 13.2) which improve students' ability to become more employable. These programs could lead to certifications which manifest student achievements and make them more attractive to the employment market.
- We propose PBL tutorials in secondary and post-secondary education to help increase student attainment, to enable them to secure entry to universities.

- Generally, the role of the universities can be revisited to provide opportunities for social change to those who do not have the capacity to enrol for a full degree program. We propose that universities should become inclusive centres of post-secondary education opportunity for all members of society, to benefit local residents who cannot move away to study (due to family situation, lack of funds or disability). PBL activities focusing on employability capabilities relevant to all fields could be offered, on a pro bono basis, to individuals of all ages, cognitive capacity, and experience who may be excluded from formal higher education.
- In terms of PSIF, universities can become physical, cultural, and social spaces which offer educational services to aid socially excluded individuals the opportunity and abilities to feel included in the productive forces of society and experience dignity and respect. The PBL approach would be an ideal pedagogy for these programs as the cohorts will include diverse experience capabilities and backgrounds. Such programs with curricula that address social issues that cause social deprivation would aid the battle against instrumental deprivation.

To combat social exclusion, we propose the adoption of PS as a goal (van Merriënboer 2013) in the learning outcomes of modules and programs, designed for undergraduate and postgraduate study as well as lifelong learning, CPD, and vocational programs. We recommend the adoption of PS as a skill to be used throughout academic curricula and in co-curricular activities, because it builds capabilities for students which minimize the risk of social exclusion and maximize the opportunities for social inclusion.

We recommend curriculum developers to consider incorporating exercises and tasks that allow learners to engage with contemporary social challenges in the immediate (and wider) environment of the HE institution. The benefit of such an approach is the development of mutual respect between learners and policy or decision makers, thus engendering the fact that opportunities to address social exclusion will not only be utilized by the relevant individuals but very importantly offered in the first place.

The adoption of PS would be ideal for students with learning challenges, as it minimizes learner working memory overload (van Merriënboer and Sweller 2005). We recommend the use of goal-free and completion problems in PBL tutorials for students in early years, for groups of mixed ability, and for modules of skills development. PP activities could be adopted in these curricula as PP is a capability and can be used with stress-laden student populations (or vulnerable individuals with mental health issues).

We recognize the utility of combinations of direct instruction and PBL. It is important for institutions to identify the appropriate mix for each year of study. In building first-year student abilities, it might be more useful to use more instruction than PBL, as well as hard scaffolding, to generate higher student attainment. In advanced years of study, we propose less direct instruction, more PBL and soft scaffolding practices, because students will have developed a knowledge basis and relevant PS skills, to exercise their creativity and apply their knowledge.

Finally, we recommend higher education institutions to appreciate the urgency of developing curricula that promote equality and diversity. Although the objective of this chapter was not to develop propositions about specific curriculum content, the arguments presented naturally lead to the realization that a focus on inclusive curriculum may be a further way of engaging learners in the planning and delivering of a curriculum for all learners. Such curricula may incorporate equality and diversity as the principles, which according to the PSIF, promote the dignity of individuals and offer learners an ideological stance based on which they seek opportunities and develop the ability to participate in inclusive spaces and markets.

## Conclusion

The chapter revealed the utility of PBL in higher education to inspire social inclusion, and offered propositions on how to approach this in practice. A number of issues merit further investigation to assist academics and policy makers to make decisions on effective curricula design and policies that promote social inclusion. Policy makers may wish to explore

the typologies of social exclusion, which exclude individuals from access to higher education, in terms of domains and processes (see Bradshaw et al. 2004), to identify policies that assist an individual in further educational attainment. Universities and policy makers could work together to explore typologies of attainments and capabilities which would improve individuals' access to spaces, markets, and services. Parallel to this effort, academics may wish to explore the utility of specific disciplinary PBL tools that would improve individuals' capacity to gain better access to services, spaces, and markets. In this way, PBL best practice acquires an instrumental position in the generation of inclusivity under the light of PSIF.

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# 14

## Establishing a Link Between Meaning and Success Via PBL: Rethinking Entrepreneurship and Communication

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### Introduction

The current environmental and political need for innovation, idea generation, and continuous development is central to most societal discussions. Essential to those ideas are the creation and communication of meaning, which, based on current populist discourse, has presented a new set of dominating potentially conflicting values. It seems that a large portion of politicians, journalists, and members of society are less interested in the pursuit of truth and validity and more interested in whether or not their statements succeed in creating the desired effects. This chapter will not address concrete policies or the specific environmental aspirations, but the principles of communication as these are essential in

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creating progress. Through philosophical and empirical arguments, it will highlight how the process of meaning can be understood and how this understanding can provide us with the tools to assess the statements citizens encounter. By the end, a basis for analysing the validity and value of societal and individual discussions for successful communication will be established.

This chapter will explore how the process and communication of meaning can be defined. It will use an empirical analysis of the relationship between meaning and existential success in a sample of university-educated entrepreneurs. Entrepreneurs are ideal for analysing the relationship between success, meaning, and validity: (1) Entrepreneurs attempt something, which for them is new. (2) To achieve success, they must convince their context of the value of their ideas and (3) their creation of meaning and actions are essential to the success of their pursuit. (4) The entrepreneurs are all taught in AAU's PBL model, which highlights the relationship between successfully identifying a challenge and the consequences that has for the communication and identification of oneself.

Another aspect of meaning and a critical assessment of current populist communication is the formation and education of people, so that they may conduct their own critical assessment. Therefore, this chapter will apply its definition of the creation and assessment of meaning to the educational context of the entrepreneurs in the case—the learning method of Aalborg University (AAU), Problem Based Learning (PBL), as a way of improving the PBL tradition as well as providing an example of how a discussion of meaning can be used. An inclusion of PBL is not only relevant to AAU, but also serves to illustrate how all meaning might be assessed.

To understand the role of meaning, validity, and communication in the life of entrepreneurs, this chapter will research the lifeworld of the individual entrepreneur, arguing that instead of trying to interpret larger patterns, the research should aim at understanding the personal attributes behind trends to explain the lifeworld of the entrepreneur. Moreover, a more intimate understanding of entrepreneurial dynamics will support the development of university pedagogy to realise the potential of students and graduates.

## Relevance and Research Question

The empirical data and case presented in Vignette 14.1 represents a point of departure for an exploration of how meaning for entrepreneurs can be created, and to what extent the meaning manifests inter subjectively, as well as modes of communication and understanding for larger societal settings. It will be directed at the following research question: *How do entrepreneurs create meaning in pursuit of acquiring existential success, and further, how does this affect external institutional matters such as populism and the notion of validity?*

The question has two primary elements. Firstly, the assumption that everyone perceives their work in a certain way, and that this is especially true for entrepreneurs who are creators of their work. Hence, it is essential to explore the individuals to understand how they view their existence as entrepreneurs. Existential success in this case describes the dialectical relationship between the assumptions and ideals of a specific individual and the perceived actions from the corresponding context. Understanding their perception is indispensable to clarifying areas for institutional improvements. For instance, if certain traits manifest as inter-subjective among entrepreneurs, traits so strongly solidified within the entrepreneurial condition that they supersede the individual, then a clearer comprehension of the entrepreneurial conditions might provide a basis for governmental initiatives to improve entrepreneurial performance. Secondly, we seek to understand what appears of greatest importance to entrepreneurs. Being a phenomenological study, this returns to Husserl's aspiration of understanding the essence of the phenomenon. In this respect, the aspect of greatest importance to the individual would be of greatest importance to the entrepreneur, that is, the essence of the phenomenon. To understand how entrepreneurs operate means understanding their focus, which acts as a subset to understanding what is meaningful to them. This presents a quandary largely hinging on philosophical reflections, a notion often jettisoned within entrepreneurial literature.

## The Role of Philosophy in Entrepreneurship Research

The scientific study of entrepreneurship has entertained a highly quantitative methodology, concentrating on predictability and quantifiability (Schumpeter 1933; Fast et al. 2014), in order to estimate entrepreneurial trends, like objective gears in a grand clockwork. The history of social science tells us this is not a tendency restricted to the study of entrepreneurs, but permeates social science in general, as jovially argued by Van de Ven and Poole (2005) when discussing organisation theory (an inherently interpretivist study): “Give a child a hammer, and everything seems made to be hit; give a social scientist variables and the general linear model and everything seems made to be factored, regressed, and fit.” (p. 1383)

By and large, the pursuit of numerical values in human phenomena is a consequence of a philosophical position acting as a limiting guide within social science, in particular entrepreneurship. Geared towards positivist universal truths for large populations, this philosophy of science has such hegemony that it is often perceived as analogous with science itself (Englander 2016), creating a distortion in the study of entrepreneurs that has transcended academia into the regulatory bodies of countries on a global scale, potentially exacerbating the issue of misallocated national funds and overall limited understanding of entrepreneurs.

Moreover, this view of how social science ought to be conducted has resulted in many researchers neglecting the philosophical considerations behind their methodologies all together (Englander 2016; Fast 2016); which is a grand mistake, for without philosophical perspectives science becomes an empty procedure, lacking the processual guidance which a structured philosophical footing provides (Ryan 2006). It would appear that the quantitative trend, the positivistic trend, and governmental policies share similar ontological and epistemological assumptions regarding their subject of research—a remark which is certainly not irrelevant to the populist movement in today’s societies.

In contrast, this case study follows the principles of phenomenology,<sup>1</sup> aspiring to grasp the subjects' realities via their experiences, and how these manifest in their perception and consciousness. It aims to comprehend their reality at an inter-subjective level, where reality relates to the concept of an experience, or psychological relation, which transcends the individual, and thus confers meaning for more individuals (Thomson 2005). Not to be understood as the experience remaining fully alike for all subjects, but merely that if the phenomenon can be uncovered in its eidetic form—its true essence—the characteristics of the experiences are similar among the individuals. Perceived as equal and shared, which via the process of the individuals' interactions, and negotiations of their understandings, gain influence in the individual (Møller 2016; Thomson 2005; Thévenaz et al. 1962). This will shed light on the gap between the topic of investigation and the methodological premises.

#### **Vignette 14.1: Entrepreneurial Meaning—A Phenomenological Analysis of University Start-Ups**

Entrepreneurship is a broad term with various levels of understanding, most notably the common conception that successful entrepreneurship is one of the keys to economic surplus (Shane 2004, 2009). As a result, governments around the world have been known to attempt to activate entrepreneurial growth by any means, for instance, with the Danish government attempting to lower the financial barrier to entry to starting a business (Shane 2004; Landström 2008). Corroborated with the notion that university start-ups are the most successful among their peers, it should follow that in the case of Northern Jutland, the presence of Aalborg University should enhance the quality of entrepreneurs in the area (Shane 2004, 2009). This notion, however, does not hold true as a university degree in Northern Jutland was found to have a statistically detrimental effect to the probability of longer lifetime of the business, average amount of employees, and income of an entrepreneurial venture (Drejer et al. 2014). Where does this leave the link between education and entrepreneurial success in Northern

*(continued)*

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<sup>1</sup>Phenomenology is a vast philosophical paradigm with a myriad of philosophical positions in regard to the study of phenomena. Thus, providing the reader with a comprehensive understanding of this is outside the scope of this text. For a rudimentary understanding of the basic principles of phenomenology see Englander (2016); Gilje and Grimen (2002); Birkler (2014).



**Vignette 14.1** (continued)

Jutland with contrasting theories of how to model this success? Our best efforts to analyse entrepreneurs from a macro-economic perspective have fallen short in examining and understanding their behaviour. This study tackles this issue from the perspective of the subject of investigation—the entrepreneur. It assumes a phenomenological approach to understanding the ontology and what drives the entrepreneurial persona, in order to grasp larger patterns of understanding.

Our research has followed ten entrepreneurs of university start-ups; all were either the founders or co-founders of their business and had graduated from Aalborg University or were currently attending. Ten underwent a verbal protocol analysis centred on a case-solving exercise related to entrepreneurship, in order to view their respective foci within the sphere of entrepreneurship. Four were followed up with an in-depth, semi-structured interview outset in their entrepreneurial project as well as their personal profile. The interview guide had introductory questions to both topics, personal questions such as “How does a typical day for you look?”, and questions related to their entrepreneurial projects such as “What feelings do you associate with being an entrepreneur?”, “What does your project mean to you?”. The paper’s conclusion represents a cross section of reality, which would benefit from being further tested and triangulated with more samples and geographical representation. Albeit, while paying notice to the epistemological boundaries of consciousness and meaning before we can truly attest to the phenomenon’s eidetic essence and subsequent mitigative measures from a legislative view. The findings followed a trinary relationship in how an individual justifies their actions and vocation. This relationship was between an individual’s desires, volitions, and their sensemaking within this; desires being unconscious or conscious elements driving us to act, whereas volitions are typically more tangible representations of desires and sensemaking as the connection created between volitions and desires, as well as the world in which you act. The relationship between desires, volitions, and sensemaking for our subjects was found to be enconced within acknowledgement, accomplishment, and self-actualisation.

An individual’s position within a certain context determines their (...) As a result, our study found that the attempts to curate and evaluate the quality of entrepreneurial ventures require an understanding of the individual entrepreneur; therefore, not something that, despite previous attempts such as non-discriminatory public funding, can be done solely via objective measures.

Admittedly, full comprehension of such an analysis would demand an adequate knowledge of the case from which it stems. This can be found in Vignette 14.1, which accounts for the empirical footing of the chapter. Our findings suggest a relationship between the three concepts: *acknowledgement*, *accomplishment*, and *self-actualisation*. These will act as basis for the analytical development of meaning and the subsequent discussion of validity and populism.

## A Trinary Concept

The process of determining the essential features of our phenomenon would be to break the phenomenon down into their core components. Approaching our observations inductively, we fragment the observation into its components of potential meaning, conceptualise an understanding of these pieces, aided by theoretical apparatuses, and synthesise this into a more cohesive understanding of the phenomenon's essence with a departure in the subjects' expressions—in many ways, imitating the quintessential scientific methodology of analysis and synthesis, albeit with the subjects' experience and observations ensconced as the driving factor.

Our interviews and experiments produced three interpretive phenomena in meaning generation, creating more or less a trinity of inter-subjectivity surrounding the same phenomenon of existence and meaning as an entrepreneur: *acknowledgement*, *accomplishment*, and *self-actualisation*. Special for these phenomena is the combination of independent and dependent objects, that is, what is you (your consciousness), and what is not you (exogenous effects on the consciousness) (Husserl 1970a). In the analysis, this dichotomy is broken down into multiple levels and perspectives: how meaning is generated from being, what meaning is generated consciously, the relationship between independent and dependent objects, how they shape meaning, and finally a discussion of sensemaking.

The empirical data for this analysis is gathered from two sources, the verbal protocols and our dialogues with the subjects. This becomes especially important in that the social context limits what consciousness we (as the subject) include in the phenomena (Bourdieu 1984). As Møller (2016) argues, if the context is leadership, then the essence of that

context defines what is relevant for the phenomenon. In the verbal protocols, this context is limited to phenomena related to entrepreneurship, whereas the interviews define the context as their life, rather than their role as an entrepreneur. The analysis explores both methods and their relevance in meaning-making and lived experience. As Husserl (1970b, p. 113–114) emphasised: (...) *one can certainly consider and dissect from the outside, but which one can understand only if one goes back to its hidden roots and systematically pursues the life which, in all its accomplishments, is in them and strives forward from them, shaping from within.*

After all, what is philosophy without a thorough understanding of the object (subject)? A mere oversimplification from a solipsist viewpoint? It is not simply ‘I think; therefore, I am,’ but also, what am I? Similarly, to avoid simply observing our subject and basing their means on their ends, we require a view from which the meaning of their ends stems. In practice, that means considering past, present, and future, in accordance with how the ego produces meaning, and how the ego relates meaning to action.

## Finding Meaning

In finding what meaning is, it is crucial to consider what creates this meaning and why. Is there an ultimate desire which justifies how they create meaning? This section unravels how acknowledgement relates to meaning—a desire to be acknowledged for actions. The specific distinction, however, is between hesitation and determination towards this desire (Husserl 1970a). Our subjects all voiced a wish to please others in one way or another. Helping or pleasing others creates some appreciation, or acknowledgement. However, is that the determinate factor for our subjects? They are not projecting that they want to help others in return for acknowledgement. It is an indeterminate conception of the desire itself. As Husserl writes, the distinction between indeterminate and determinate is the difference between desire and volition. Desire relating to not-always-conscious references to what is desired, however, often moved by unconscious drives towards unrepresented goals, and the unrepresented goals being absent a priori to understanding the desire,

that is, lacking intentionality (Husserl 1970a). Instead, intentionality is represented by volition, being the always conscious “what is willed”, in this context helping others. Given that our subjects’ volition is so grounded in other people, the transaction that takes place between helping and “what is willed” presents itself as a worthy reward for our subjects consciously through gratitude, according to Costello (2005 p. 3): (...)  
*one cannot be grateful on one’s own. A communal or mutual act of recognition is implicit in and required by the individual act. In gratitude, one’s individual posture is one’s response to the other, one’s preservation of that other. What this means is that in real thanks one recognizes the other as another self, as a co-participant in experience who has the right to her own paths. Gratitude thus involves my seeing you or your words or your actions as recognizing me as valuable; that is, I see you as valuing me in a way that corresponds explicitly and appropriately to the way I value you.*

Gratitude is simply the premise for a transaction following the act. However, the recognition Costello (2005) argues for is the manifestation of respect, exchanged for the act of helping, and (in)determinately the reward the subject receives. Yet, as we argued previously, the subject does not necessarily consciously know that what he or she pursues is that recognition. What determines if it is a desire rather than a volition? Respect is a topic mentioned by our subjects, indicating it as a volition rather than a desire. However, our subjects differ in that regard. That it is partly also that recognition goes both ways, that is, a responsibility for respect. This responsibility is found in various ways in our subjects, commonly tied together in responsibility as a virtue, born out of respect for something or someone. Respect and responsibility have a close-knit relationship, as argued by Darwall (1977): (...)  
*thus to regard it as requiring restrictions on the moral acceptability of actions connected with it.*

The relationship between acknowledgement and respect is not a recommendation on how to act; it is a recommendation on ways not to act (Kriegel 2017). This is analogous to what our data showed. Treating respect as well as acknowledgement as a duty or a responsibility and then not acting is out of the question. Thus, Darwall’s definition of the relationship between responsibility and respect can be juxtaposed with Herzberg’s hygiene factors. That it is not the presence of something that creates a problem—it is the absence; the absence of responsibility being a

lack of compulsion to pursue a desire or volition. Similarly, Lerner (2015) argues for the cultivation of responsibility in generating meaning. That is, in order to generate meaning, you require volition and desire. The desire for “acknowledgement”, regardless of a conscious effort to achieve it, is a product of every interaction with others, which our subjects have. Acknowledgement is understood as the communicative, rhetorical, and social behaviour that involves granting attention, or expression towards the existence of someone’s identity. Husserl describes desire as a correcting mechanism for the individual’s existence, that the desires, whether the consciousness is aware or unaware, alter the behaviour, and consequently the volitions of the individual. Here, we see volition’s directedness in our subjects being aimed at acknowledgement, signifying that acknowledgement remains the key inter-subjective desire in our respondents (Husserl 1970a); the comprehension being that meaning requires volition and desire. However, do we inherently comprehend volition, given the complicated and ambiguous understanding the data gives of our subject’s conscious motivation? We require a further understanding of volitions, and how they relate to desires, in order to comprehend the connection between them and the generation of meaning.

## Volitions and Meaning

As desires relate to sensations that we need not affirm consciously, volitions are what we have intentional conscious reference and direction towards. Our subjects reflected on how their volitions, typically related to business-activities, would result in wealth; however, they still noted that the key motivation was helping others. Why not directly desire wealth, rather than helping? Husserl (1970a, p. 111) alludes to this by arguing about the distinction between their determinateness, and indeterminateness: *Here we are dealing with intentional experiences, but with such as are characterized by indeterminateness of objective direction, an ‘indeterminateness’ which does not amount to privation, but which stands for a descriptive character of one’s presentation. The idea we have when ‘something’ stirs, when there is a rustling, a ring at the door, etc., an idea had before we give it verbal expression, has indeterminateness of direction, and this indeterminateness is of the intention’s essence, it is determined as presenting an indeterminate ‘something’.*

Husserl's idea is that any of our subjects' verbalised vision, or goal, is a descriptive representation of indeterminateness of direction. That the lack of conscious direction produces a representation of a conscious direction, in other words a volition. For instance, our subjects voiced their motivation to help, rather than the monetary compensation for their actions. What this can mean, from the view of our subjects, is that volitions can have limitations or extensions, and require a further investigation of the volition itself to tell. An example of this is that one of our subjects wants to create value. Why? He states he would like to be rich. Does he have to produce value to do that? He stated that he is contemptuous of types of people who seek wealth, without providing value. In other words, those people are a representation of his moral limits. So, you can transform our subject's sentiment to be: "I want to attain wealth on the premise of my best character, rather than on the premise of my worst conceivable character". Spini (2003)'s definition of "accomplishment" is similarly "accomplishment is personal success through the demonstration of competence according to social standards" (Spini 2003, p. 4). In turn, meaning that for him to regard his volition as "correct", it requires demonstration of competence, that is, creation of value. This same tendency is present in all our subjects.

It seems the idea of helping is an intrinsic moral compass within which to enact volitions. This relationship between moral limits and volitions requires elaboration of intentionality. Husserl argues that meaning is generated in how consciousness refers to the object (Husserl 1999). The aforementioned moral limits—their intentionality being so grounded within these—should be interpreted as a correctional element of volitions. To use Husserl's terminology, our subject's volition is to get rich, and whether he is conscious of how to attain it or not, his volitions are nonetheless directed by it. However, the fact that they are bound within morals is interesting, as our remaining sample share this view. In other words, the intentional essence is that of a (mis)guided volition, in a compulsion to pursue desires. This simply solidifies the importance that volitions have in regard to how they are perceived by others, and in turn leaves enacted volitions as accomplishments in themselves.

In the context of meaning, volitions can be viewed as the representations of conscious or unconscious horizons of desire, especially evident in

that they are clearly so difficult for our subjects to verbalise with certainty. Due to the difficulty of verbalising the desires and experiences, volitions can be considered a result of a communicative ability, both in the expansion of reality, which is caused by the expansion of vocabulary and experiences, and as a result of an interpretation of oneself in a specific context. What appears as a volition, as a verbalised element of being, is, as any other part of mental being, a result of a contextual self-understanding. In other words, accomplishments are representations of conscious volitions made manifest in a context by a specific individual, and these volitions generate meaning from satisfying desires, that is, acknowledgement, and at the same time act as an identifying marker of oneself. This relationship between volitions as a verbalisation of an individual's desires and its positioning effects entails that elements such as morality, historicity, and persuasion are a vital part of the success of meaning. The values and discourses of a context and the self-image of the individual in question are essential to the understanding and analysing of the dialectical process of volitions and meaning.

## Sensemaking

Our sample and how they define their entrepreneurial context is driven by the world around them. That world needs a constant interaction in order to “check” the individual's current position in relation to those in their context, or as we refer to it, to check how your self is actualised in accordance with them. This is where Weick (1995)'s sensemaking concept is relevant; it emphasises how the subjects are impacted by those around them, as well as by surrounding organisations. Weick argues that it is especially the intersubjectivity they have with others that is given a “check”, through mutually reinforced interpretations they make with others of the same phenomena. However, in a context in which the organisation is not an archetypal business entity, the immediate circle defines the organisation. As Weick (2009, p. 142) argues, sensemaking is the inter-subjectivity you create with others, through a dialectic process, and that others hold a crucial role in who you are, as well as who they are: *(...) who we think we are (identity) as organizational actors shapes what we*

*enact and how we interpret, which affects what outsiders think we are (image) and how they treat us, which stabilizes or destabilizes our identity. Who we are lies importantly in the hands of others, which means our categories for sensemaking lie in their hands.*

In other words, knowing that other people hold a deciding role in your identity, and how it is judged, as Weick argues, is the argument for our subjects' focus on "helping", in pursuing their volitions and desires. Furthermore, for our subjects, the frames of their jobs extend beyond defined organisational structures, as they believe it is a core part of their being. With the network aiding them in strengthening or checking their current behaviour to better accommodate their surroundings. In turn, meaning, that how they act, is a consequence of attempting to favour their identity and how it is portrayed and treated by others (Weick 1995). Especially given that all our subjects, possibly out of recognition of the other, as Costello (2005) argues, induct a part of the "other" into themselves in order to bridge their understanding with them. Sensemaking in that relation is a method to create bridges of understanding with others, and which in turn shapes your own understanding (Weick 1995). In this relationship, sensemaking is a correctional dialectic process that you naturally, through life-world interactions, react to in how you define your volitions and desires. Sensemaking acts as a moderating effect to what meaning is to you, and how you bridge that meaning and connect with others. For example, when our subjects define "helping" as their motivation, this is the result of their anticipations, or reactions, to the dialectic process. It is an attempt to accord what they perceive and expect in their life-world interactions with when they can receive acknowledgement for their actions, and through this, correct their volitions, in consequence, shaping how they define meaning for themselves and others.

## Meaning and Success

The findings of the case study point to meaning as a determining factor in the existential success of entrepreneurs. Meaning acts as the profit and motivation for accommodating the multifarious resistance an entrepreneur and business owner meets. If meaning is not adequately



conceptualised by the entrepreneur it can have detrimental effects—conceptualised by questions such as: What are your goals? What do you expect? How do you want to be perceived by consequence of your work as an entrepreneur?

The low survival rates of entrepreneurial ventures may be attributable to a lack of insight into what creates meaning for the individual. Insight that lacked in, for instance, the governmentally funded “IVS” enterprise format where financial risk was minimal. Our subjects only considered risk insofar as it associated with dealing with other people—not financial risk. Our findings would suggest that the non-discriminatory government initiative instead solicited entrepreneurial entrants who did not match the identity of one who attributed much of themselves and their meaning in their venture. Our paper posits that this was a misguided solicitation. It produces start-ups in which the entrepreneurs are not able to assert enough thought into how the venture can be a medium for their creation of meaning.

This tendency can be identified in other government programmes in which, for example, unemployed individuals receive social benefits for starting businesses in lieu of applying for regular positions in the job market. Accepting this programme leaves the individual in a position with longer work hours and a lower salary, compared to the ordinary worker. If the venture is not meaningful to the person, it erodes what is meaningful to them. It becomes less about creating value for the individual’s existential foundation and meaning, but an escape from the alternative. Instead, for the majority of individuals, stability, higher salaries, or time with the family are greater creators of meaning than the findings’ suggestions of altruistic purposes and acknowledgement.

In order to support their entrepreneurs’ ventures and probability of survival, institutions must pay attention to framing conditions which articulate the ontological challenges. This means providing guidance for meticulous insight and reflections for the entrepreneurs to ruminate on what creates value in terms of where they see themselves going, how they place themselves in this narrative, and what accomplishments they intend to gain from the venture. This might be interpreted as an opposition to the notion that everyone can, or should, become an entrepreneur. Something we, qua our findings, fundamentally disagree with. Our case

is that the relationship between volition and desire, affected by the sense-making mechanisms, is what creates the real meaning and existential footing for entrepreneurs. If the individual's desire, and corresponding volition, do not assert meaning in the prerequisites of entrepreneurial activities, the result will be an existence void of essential meaning and by consequence—happiness. In other words, one's position within a certain role, for example, entrepreneurship, and the fulfilment and happiness one attains is directly correlated to the notion of meaning, its creation in the consciousness, and movement in the being and existence. Therefore, the concept of meaning through business venture creation cannot be asserted as homogenous, and from a macroeconomic level, ought not to be treated as such.

Hence, the government, or other entities, may be seen as acting, either knowingly or unknowingly, with a lack of understanding of the underlying human dynamics—a trend permeating a multitude of our societies' constitutions, which we will suggest has a substantial impact on our notions of populism and validity.

## **Conclusion: Enlightenment and Identity**

Meaning among entrepreneurs, in education or politics, is to be treated as an individual and dialectical process which is constantly developing and interacting with the surrounding context and society. At the core of this process expressing volitions is the communicative ability and self-analysis; knowing what a central desire for oneself is, and what it is not is essential to existential success and it is there that the tools for the critical assessment of meaning are particularly relevant. In a world of constant, and potentially overwhelming, information, it is paramount that the formation of character and critical insight is structured and, philosophically speaking, it is the only tool to withstand the never-ending stream of ideas, arguments, and persuasive journeys set before us. To form critical insight and persistent character, we must continually develop a framework and criteria for truth and the value of arguments. The empirical analysis in this chapter shows how responsibility and respect are closely linked with the creation of meaning and the existential success of their

entrepreneurial endeavours. The notion from Darwall was that the presence of respect and responsibility is assumed, and only in the absence of those qualities is their importance recognised. Whether these assumptions originate from biology or culture is beyond the scope of this paper; however, their role in the creation of meaning is crucial. Meaning for an individual must contain clear elements of responsibility and respect towards someone or something. This identifying relationship between the individual and the created meaning can be exemplified through Kant's (1992) discussion of enlightenment: *Enlightenment is man's emergence from his self-imposed immaturity. Immaturity is the inability to use one's understanding without guidance from another. This immaturity is self-imposed when its cause lies not in lack of understanding, but in lack of resolve and courage to use it without guidance from another. Sapere Aude! [dare to know] "Have courage to use your own understanding!"—that is the motto of enlightenment.*

In this discussion, the concepts of understanding and meaning are synonymous, because one can never have a meaning without understanding something (even if that understanding is erroneous) and one can never have understanding without meaning (insofar as meaning implies the use of emotions in understanding the phenomena). In other words, we are part of the understanding or meaning we create. The passage from Kant is relevant because it highlights several different aspects of the assessment of meaning. First, an unenlightened individual understands, but lacks the resolve and courage to let that understanding guide them. Second, one cannot be unenlightened if one does not understand. Third, the individual is forced to relate to their use of understanding or lack thereof. In order to become an enlightened individual in a society requires an understanding of one's engagements with society as a whole and to be willing to put that in play. Several things might be lacking in modern societies, and daringly one might state that politically speaking, we are witnessing that those with a qualified understanding lack the courage or resolve, and those with resolve and courage lack the understanding. That statement is far from true in a general sense, but it highlights the responsibility that comes with the privileged position of understanding.

What is philosophically valid is that, as mentioned earlier, meaning is created in a context with a set of values and ideals. Members of society act

in accordance with their perception of those values and their experience of their position in society. With the combination of a democratic system, what can then be concluded is that the values and ideals, of what ideally should be the majority of a society, have created the basis for the populist political trends we are currently experiencing. Whatever tools and guidelines that might be discussed are, therefore, faced with the enormous task of having to change the very values and ideals which created the populist tendencies. The challenging part of those guidelines might therefore not be their complexity but rather the complete dedication they require to succeed. This discussion of society is relevant for both validity and for success, because it is a description of the context in which both are measured. Success in that sense relates to fulfilling the volitions and desires one might have, and the volitions and desires are a product of the context and the individual.

Validity becomes a concept describing the extent to which one's understanding of a given phenomenon adequately clarifies it. Evaluating validity is therefore a discussion of when a description is sufficient and when it is not. This depends on assumptions, about truth and reality. The validity of a statement can be scientifically assessed (although differently, depending on the epistemological perspective) and it can be socially assessed. Current populism reveals the difference between what is scientifically assessed and what is socially assessed. Why this cultural divide (even internally in science) has come into being is beyond the scope of this chapter. For now, a starting point for validity in communication and politics would benefit from a unified set of principles for assessing validity. Bruno Latour exemplifies this in his lecture "Why Gaia is not the Globe" (Latour 2016). He argues that politics and the political positions of globalisation and land (or localisation) are both regressive. His alternative (Gaia) is more beneficial for political discussion and perspectives on the environmental challenges and unifies the scientific notions of planet and lived space. He refers to the two latter concepts as the products of physicists and phenomenologists. It is not beneficial only to consider the lived space, it focuses on our perception of now, and it is not beneficial to consider only the planet, as it disregards the experience of being a human.

This chapter follows in Latour's footsteps on validity and meaning. If science is to educate students and contribute to the societal agenda, our

internal paradigmatic differences need to be settled. As individuals when addressing societal challenges, we need an approach which highlights the different cultural positions, the dialectical relationship between the question, the answer, and the questioner. In short, the idea of existential success rests entirely upon the notion that one's self-understanding and created meaning harmonises with the context of one's existence. If one is to be existentially successful, it is necessary that the manner in which one questions and develops the context is adequate and structured not only in regard to the socially established criteria for questioning but also in regard to the interpretational parameters of one's given context. Validity in existential success and communication can, therefore, be described as a measure of one's method of questioning the context and developing accordingly. In other words, if our meaning is to be a sturdy construction for our existential success in the current information age where development is not the focus but rather an existential condition, the knowledge we have now is not as important in defining us as our methods. Consequently, a structured method for questioning reality which highlights the dialectical relationship between the answer, question, and questioner is central to obtaining existential success and validity in the meaning we each create.

There are many methods which could be starting points for discussing existential success and validity. Problem-based learning is relevant for three reasons: (1) it is a method, which all of our respondents learnt during their study at AAU; (2) it contains a structured approach to practical questioning, which fits with the conclusions in this chapter and, provides a more concrete answer to the problem formulation of this chapter; (3) PBL highlights questioning and the creation of meaning and is particularly relevant for understanding [addressing?] today's environmental challenges, which seem to generate populist disputes. *Project work is characterized by being a problem-oriented process of realization rather than being purely a knowledge acquisition. Usually, the process of realization consists of two parts. The first part takes its point of departure in a lack of knowledge in relation to one's surroundings, that is, one wonders about something, which is different from what one expected, or, which turns out to be different from what one would expect. This wondering may result in the formulation of a problem that is to be dealt with. The second part consists of thinking*

*through the steps that are needed to take in order to investigate and potentially 'solve' the problem. The realization, then, occurs in the interplay between actions and thought, where one carefully considers one's actions and acts according to one's thought process (Heidelbach et al. 2001: p. 7).*

PBL represents an ambition for personal development and understanding through self-critical exploration. The PBL process can provide a platform for an improved understanding of society in order to contribute to social improvement. In the AAU version of PBL it is assumed that the students have the freedom to pursue their understanding and self-development. That can only take place if the curriculum and framework of their projects take into account the actuality of the students. If we want enlightened, critically assessing, and active members of society (or in universities), we need to allow them to develop society in accordance with their meaning. Combining this notion of enlightened and active students with the need for a unified set of evaluative tools for communication assumes that we have a structured perspective, which can guide and unify people and societies. The responsibility of validity weighs heavily upon the scientific community. The challenges of existential success, communication, and populism are not only a matter of logic, but of emotions, self-critique, culture, and enlightenment.

As this chapter has discussed, it is important that the parameters of the workings of the human being is considered and established when politics, discourse, or science is conducted. Given that the chapter is based on the empirical data from ten different entrepreneurs regarding their own understanding of the role their self-understanding plays in their life-world, further research would be beneficial in regard to showing whether existential success is significant for the profitability and sustainability of the entrepreneurial pursuit. In regard to existential success, the empirical findings suggest a strong relationship between acknowledgement and respect in one's creation of meaning. This indicates that the practice and idealisation of those values along with a structured approach to understanding reality can pave the way for us to politically strive towards validity as (...) *it requires that the subject assumes its responsibility for its theoretical and practical productions and endow them with meaning and validity, rather than justifying them by appealing, say, to a deus ex machine (Lerner 2015, p. 3).*

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# 15

## Storytelling Sustainability in Problem-Based Learning

Kenneth Mølbjerg Jørgensen and David M. Boje

### Introduction

We live in the Holocene Epoch, within the longer geological timescale (GTS) of the Quaternary Period, and the even longer GTS of the Cenozoic Era, in the even longer Phanerozoic Eon. Because the GTS is longer than a human lifespan, it is difficult to grasp the current extinction situation, and the consequences that are the most likely result of “business-as-usual” in politics, management and organization. In the first five extinctions that mark the geological timescale (GTS), it was mainly marine invertebrate species that died-off in great numbers, but in the Sixth Extinction, it is all species that are endangered including many of

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the 7.4 billion human beings currently living on the earth. The six extinction-level events are as follows:

1. *End Ordovician Extinction* (2nd period of the Paleozoic era, between the Cambrian and Silurian periods, within the Phanerozoic Eon): 439 million years ago, 60% of marine invertebrate species went extinct when sea levels fell drastically in glaciation.
2. *Late Devonian Extinction*: 367 million years ago, while colonization of land by plants and insects was well underway several extinction events happened, mainly affecting marine life; 57% of marine invertebrate species went extinct.
3. *End Permian-Triassic Extinction*: (on boundary of Permian & Triassic Periods) 252 million years ago, the great die-off of 96% of all marine species and 57% of all biological families went extinct. There is evidence of several phases, including a large meteor impact, sea level rising, massive volcanism and ensuing coal/gas fires and explosions.
4. *End Triassic-Jurassic Extinction*: 208 million years ago, 53% of marine invertebrate species went extinct due to global cooling or some say oceanic volcanism.
5. *End Cretaceous-Paleogene Extinction*: 65 million years ago, 47% of the marine invertebrate species went extinct (including the dinosaurs) because of what is believed to be a large meteor impact.
6. *Sixth Extinction is in the newly designated Anthropocene Epoch of the Holocene Period in which we are now living*: It is here and now an ongoing extinction event. It is the direct result of our human activity, such as destruction of habitats, over-consumptions of animal resources, elimination of plant/marine/animal species humans view as competitors, and the Carboniferous Capitalism since the Industrial Revolution. It is predicted that this will be an extinction of 50% of earth's higher life forms and an extinction of species estimated between 100 and 1000 times higher than the background extinction rate of mammals, birds, amphibians, reptiles, plants and arthropods. It is estimated to be 10–100 times higher extinction than the five previous mass extinction events.

Scientists are calling for the United Nations and governments around the world to enact something other than “business-as-usual” policies and practices. For example, in November 2017, 15,364 scientists from 184 countries sent a statement “World Scientists’ Warning to Humanity: A Second Notice” asserting “we have unleashed a mass extinction event, the sixth in roughly 540 million years, wherein many current life forms could be annihilated or at least committed to extinction by the end of this century.” Since the dawn of humankind, 80% of wild mammals, 80% of marine mammals, 50% of plants and 15% of fish have gone extinct. Humankind replaced the 60% of wild mammals with livestock, and 70% of wild birds with domesticated poultry.

The ecological collapse in the Sixth Extinction was accelerated by the emergence of the Industrial Revolution fuelled by Carboniferous Capitalism, a term used by sociologist Lewis Mumford (1934). Big agriculture developed competition on the basis of monocrop production by using mass quantities of petrochemicals, with unintended mass extinction consequences. With current accelerations of global warming, there is climate change, including increasingly unstable weather patterns, increases in annual mean temperature, melting of glaciers, lack of new snow pack, shortages of freshwater, droughts, water shortages and Arctic forest fires. Historians of technology refer to the period following World War II as The Great Acceleration (Headrick 2009; Schatzberg 2018). Bio-technology, quantum physics, computerization and digitalization are contemporary inventions that speed up this acceleration, and have opened new dangerous ways of acting-into-nature (e.g., Arendt 1998).

Haraway (2016) uses the term “Capitalocene” to describe the contemporary world. She uses Arendt’s case of Eichmann (Arendt 2006) and her framing as the banality-of-evil as the description for a giant and collective inability to think embedded in our blind habits of participation in contemporary economic, political and business practices (Haraway 2016, p. 36). The missing ability to think is not just about being obedient but is also about not presuming and claiming responsibility for the consequences of our actions even if we are well-aware that these habits cause mass extinction and threaten our children, their children, bio-diversity as well the life cycles of all species on the earth. Through the missing ability to think we have become strangers to ourselves. We walk around like

sleepwalkers doing our daily routines and enact business-as-usual. We need an activist management education framework, which can alter the destructive movements of capitalism. We find that in a multi-species terra-political storytelling framework for PBL.

## Natality and Multi-Species Storytelling

We believe that sustainable PBL management education must be founded on the principles that we identify as natality and multi-species storytelling, which we will describe by means of Arendt's (1998) and Haraway's (2016) philosophical contributions. Such principles are radical in the world of management and organization. Our current cycles of production and consumption suspend the concern for nature's life cycles on the grounds of maintaining or improving competitive advantage, gain market shares and increase material wealth. We have misunderstood what technological development is all about. However, there is nothing wrong with technology per se. Human history has from its dawn been entangled with the use of technologies. Technologies are simply defined here as practices characterized by the use and production of material objects and artifacts (Schatzberg 2018, p. 2). Arendt's notion of technology is captured under the name "work." She argues (1998, p. 7) that it is through work that we build a durable and relatively permanent human world on earth. She refers to this part of the human condition as worldliness. Work is the human process by which we try to separate ourselves from nature.

The Capitalocene is, however, not characterized by production for durability but rather for consumption. Shorter product life cycles, consume-and-throwaway cultures and subsequent over-consumption of earth resources and production of waste have become essential elements of our modern lifestyle. Companies buy and harness resources that are essential conditions of life. Such resources include water, life in the water (e.g., fishing quotas and rights), life on land (e.g., big factories of cows, pigs and hens), and there is an exchange market for quotas for carbon dioxide emissions. Furthermore, through technologies that act-into nature, we move further and further away from the earthly condition we were born into. Flying to the moon, space travel, airline travel, global

trade, production and supply chains are examples that coming from and belonging to a particular “place” does not mean the same anymore.

Thus, Arendt suggests that development of technologies has severed the cultural and economic development from our organic and biological development. She asks if “the emancipation and secularization of the modern age, which began with a turning away, not necessarily from God, but from a god who was the Father of men in heaven, end with an even more fateful repudiation of an earth who was the mother of all living creatures under the sky?” (Arendt 1998, p. 2) Such a condition of being is “fake” and results in what we call “fake” storytelling. “Fake” describes first the condition of climate denial, which seems to be an inherent condition of Capitalism (Latour 2018). “Fake” also describes the banality-of-evil condition (Arendt 2006) of not thinking and therefore of not claiming responsibility for one’s action. In contrast, true storytelling and action imply responsibility. Corporate social responsibility (CSR), circular economy and other parts of the sustainability discourse of today only in rare cases live up to this criterium.

Storytelling is “fake” as long as it is severed from what Haraway (2016) calls multi-species storytelling. Haraway suggests that the challenge of today is to find ways of living with and in companionship with the multiple species of the earth. She agrees with Arendt, that despite all our technological advances and innovations, Mother Earth is the condition of our own becoming as well as she is the condition of all life on earth. The mutual interdependence of the plurality of life-forms (Arendt 1971) and hence multi-species storytelling are the conditions of life on earth and of our own becoming. For the same reason, Haraway does not like the term Anthropocene. She argues that it implies a “fake” story of human centredness, which does not characterize the ontological condition of being and becoming. However, we keep the term Anthropocene. The Anthropocene is for us a violent relationship of human and cultural practices in relation to the other non-human critters of the earth, while our ontological understanding of becoming implies the interdependence, intra-activity and intra-connectedness (e.g., Barad 2007) that Haraway tries to describe with the new term Chthulucene. We will discuss this term next and argue for the need for a terra-politics, a politics of the earth.

## The Chthulucene, Natality and a Terra-Politics

Haraway defines the Chthulucene as a kind of "...timeplace for learning to stay with the trouble of living and dying in response-ability on a damaged earth" (Haraway 2016, p. 2). She uses it as an ontological understanding of being-together-with, always in relation and entanglement with the multiple species of the earth. The name Chthulucene is inspired from a spider with many tentacles where "tentaculum" means feeler. She uses this metaphor to describe a condition of multiple attachments and detachments, cuts and knots, making differences and weaving paths and consequences but not determinism (Haraway 2016, p. 31). Thus, the Chthulucene is a metaphor for a "feeling" relationship of making kin with all the critters in a damaged, vulnerable and wounded world (Haraway 2016, p. 10).

Haraway is using the metaphor of the "Terrapolis" here. Likewise, Bruno Latour (2018) calls for "terrestrial politics" for protecting Gaia. Sixty-one years ago, Arendt (1998) called for a politics of natality—a politics of rebirth and new beginnings. Thus, Arendt, Haraway and Latour all call for a politics of the earth. We choose the term terra-politics. This politics is importantly not only grounded in an ethics of individual responsibility. Politics is something different. Politics is a collective activity and takes place among people (Arendt 1961). A terra-politics puts the eternal recurrence of life in the centre of attention. This implies multi-species storytelling.

This link between politics and storytelling is not new. Arendt (1998, p. 50) argues that we become political actors through storytelling. She argues (1998, p. 50) that people disclose their uniqueness and difference through stories. We become different and stand out through stories. Furthermore, to be unique means being responsible and answerable. For her, storytelling is much more than meaning-making and interpretation. To reduce storytelling to a tool through which people disclose their psychoanalytical and psychological qualities is even more questionable because people's uniqueness is reduced to a classification or a particular recognizable characteristic for groups of people. Stories are just there. "They say exactly what they do" (de Certeau 1984, p. 80). They cannot

be reduced to power, discourse, psychoanalysis or psychology. Instead, storytelling is a unique way of living in, or actually as Haraway would put it, “living with and together with the world” instead of against it. By linking politics and natality, “true” storytelling is a politics of the earth.

Arendt links politics and natality explicitly through her considerations of living a happy life. This requires that we have the possibility and courage to appear before others with our own voices, intentions and interests. Furthermore, it requires responsibility and answerability for the life we live as mentioned above. Vatter explains (2006, p. 140–141) that for Arendt happiness is a memory of the possible existence of a happy life that exists in pure consciousness prior to all existence. It is a memory of “a past that never was.” This memory is in other words a basic and pre-social condition of human existence. It guarantees that we can recognize the happy life whenever we encounter it. This “memory of a past that never was” was in the early days of Arendt’s authorship the memory of God as our Creator. However, in *The Human Condition* (Arendt 1998), the memory of God is replaced by another creator, namely the memory of being born from a world in all its multiple variations and species that we all depend on.

Arendt argues that we were born from this world and that this is a world that we have in common and which we cannot escape. Therefore, our whole human condition is interdependence. We are only here as temporary inhabitants. We have “borrowed” the world and we are obliged to deliver this world back to the “newcomers” so that they can begin again. Natality specifically rests on the multiple conditions we were born into in terms of differences in race, species, eco-systems, flora and so forth. This multi-species storytelling is a universal and hence pre-social ethical condition of human life that we cannot violate (Butler 2015). This principle of natality is the very condition and beginning of answerability, responsibility and of being human in the first place. Arendt thus notes (1998, p. 97) that “the eternal recurrence” is the highest principle of all being. A philosophy of management and education that does not take this principle into account simply does not know what it is talking about.

To enact answerability and responsibility and to be held accountable, however, require a political space of participation, what Arendt (1998) calls a public space (Jørgensen, *in press*). Importantly, this is a collective

space in which people have the legitimacy to make politics together. This space is not guided by a single great man or, in organizations, a single great leader (e.g., Spector 2016). This public space is a collective and situated space where we can participate and have something in common. The problem for Arendt is that we have lost this sense of a common public space that we all depend on. Instead, the common public space has been outsourced, privatized and sold to the highest bidder in order to make private profit. Furthermore, there are specific material conditions for political participation. People, who live in precarious conditions, with uncertain and limited access to shelter, food, health care (Butler 2006, 2015), do not have the same possibilities or incentives to act politically.

PBL is enacted through a model of true storytelling, which is extended into a multi-species storytelling by reading through the principle of natality with true storytelling. A terra-politics of storytelling requires in other words changes at the social, economic and political levels. This is what a sustainable PBL management education has to address. The next sections frame a storytelling approach to a problem-based learning management education. We use the 17 UN SDGs as a material translation of the problems of sustainability. The SDGs were launched in 2015, after a failed earlier attempt of eight general goals did not get the attention or commitment of nations, nor change the “business-as-usual” mindset of producers and consumers.

## **A Terra-Political Storytelling Framework for Problem-Based Learning**

The Aalborg version of PBL was born together with the university in 1974. It combines problem-orientation and group work in an approach which, among others, was inspired by John Dewey (1916, 1991) and Paolo Freire (1996). PBL emphasizes taking the starting point in the problems of the world and the different values and stakes that are associated with these problems. Thus, education has to start from the ground, that is, from the historical, spatial and material geographies from which we are born and in which we live. Theorization, rationalization,



conceptualization have nothing to do outside and beyond the sphere of these conditions. PBL thus emphasizes the need to have first-hand built-in experiences with the practices of the world in which we live and is suspicious of how much value—abstract theoretical value—can bring without a tight integration in the practices of the world.

We believe that PBL's value and ideology can be sharpened by integrating it with storytelling simply because PBL is about working with students' stories. Furthermore, PBL is inherently political and ethical (Freire 1996; Jørgensen and Strand 2011; Jørgensen et al. 2012). An important idea in PBL is to learn how to be responsible and answerable. Such competences can only be learnt if students interact with the world. This ethical purpose is, however, often forgotten in PBL rhetoric. Instead, PBL becomes an effective methodology for teaching and learning people theoretical knowledge and competences. For Freire, however, ethics and politics are at the heart of PBL. Freire's "pedagogy of the oppressed" focused on dialogue and problem-orientation as important means for an emancipatory pedagogy because it was through dialogues with people that education became grounded in people's lived experiences.

Walter Benjamin, a fellow Marxist with Freire, did not write about PBL but storytelling. In his classic essay from 1936, Benjamin proclaimed that the modern condition implied the loss of storytelling capability (Benjamin 1999). According to Benjamin, the storyteller is the figure in which the righteous man encounters himself. Benjamin argued that true stories emerge from "the ground," that is, from the relational engagements that people were part of in everyday life—the living stories (Boje 2001, 2008; Jørgensen and Boje 2010). The loss of storytelling capability is for Benjamin caught in the phrase that experience has fallen in value compared to modern rationalistic Western narrative tradition, which is linked to modern consumption and production cycles.

In education, we witness the loss of storytelling capability in the use of what Freire calls the banking concept of education. According to this concept, students are expected to repeat what teachers say instead of being capable of thinking. Instead of sharing experiences in a dialogical relationship where students are recognized as persons, the banking concept of education implies the use of "dead" information exchange (e.g., Benjamin 1999). PBL and storytelling imply a renaissance of the value of

local community lives, spaces and embodied experiences in education. The principles of natality and multi-species storytelling described above push us towards embedding management philosophies and relations of production and consumption in nature's life cycles. Today, the Anthropocene constitutes the new challenge for PBL. Through PBL however, ethics can become embedded in concrete conditions and circumstances whereby people can learn how to think, act and judge in an ethical way about the problems of the world (Arendt 1998, 2003). We believe that this is important for business. Without the planet there is no business and there is no capital. Thus, sustainability as witnessed by the 17 SDGs is not only part of the agenda. For many companies, it is the agenda. The "fake" storytelling that we witness every day, actually confirms this picture.

## **Problem-Based Learning and the UN Sustainable Development Goals**

A terra-political framework has implications for the ways we look at the UN sustainable development goals (SDG). The SDGs constitute for many organizations and managers a concrete materialization of the sustainability problem. They also provide concrete goals, categories and problems around which PBL can be organized. The SDGs, however, have to be reorganized and prioritized to meet the terra-political conditions and the ethics that we have sketched above. Rockström and Sukhdev (2016) from the Stockholm Resilience have, for example, produced a pyramid of the goals where goals related to the biosphere are the foundation while social goals are built on top. The economic goals are the third layer that rests on both biosphere goals and social goals. These three layers are tied together with SDG goal 17, Partnership for the goals. Their organization is presented in Fig. 15.1.

The difference between such a reorganization of the SDGs and contemporary discourses on Corporate Social Responsibility is very clear. Carroll's CSR pyramid puts, for example, economic responsibilities as the first priority. The triple bottom line talks about a balance between



**Fig. 15.1** UN sustainable development goals. (Source: Rockström and Sukhdev 2016)

profit, people and planet (Vallentin 2011). In reality, this means that CSR stories are “fake.’” Profit almost always comes first, people come second and planet comes third in CSR discourse. Rockström’s and Sukhdev’s model makes it clear that it is absurd to talk about a balance between profit, people and planet. We cannot claim to be answerable and responsible, if we make a trade-off between profit and clean water, air, life on land and life in the water. Planet is the foundation that we even talk about people and social practices and that we have economic systems.

However, we have some modifications of Rockström’s and Sukhdev’s model. Below we have done our own reorganization and have structured it according to Arendt’s notions of politics, work (material practices) and natality (biosphere and basic social needs). *No Poverty* (SDG 1) and *Zero Hunger* (SDG 2) are for us on the level of basic necessities and are linked directly to the idea of the eternal recurrence and nature’s life cycles. We believe that the goal concerning *Peace, Justice and Strong Institutions*

(SDG 16), is on the level of politics along with partnerships for the goals. *Gender Equality* (SDG 5) and *Reduced Inequalities* (SDG 10) are also on the political level since participation in the public space is a right for all people regardless of gender, religion, race and colour. Finally, we believe that quality education is a basic human right and benefits political participation and collective wisdom (Fig. 15.2).

The scope of most PBL problems identified in management education is the intention to contribute to SDGs 3 and 11: “Good Health and Well-being” and “Sustainable Cities and Communities.” Such principles always rest on the six very basic SDGs, which are urgent for natality and multi-species storytelling. These six basic SDGs can never be ignored as they comprise the basic social needs: “No Poverty” and “No Hunger,” and Biosphere goals, “Clean Water and Sanitation,” “Climate Action,” “Life Below Water” and “Life on Land.” These foundational goals are non-negotiable. The arrows that point towards the basic foundational goals imply that politics and material practices (work) are always answerable and responsible to these foundational goals. We call it first level answerability.

Management students are most often concerned with problems concerning material practices: problems concerning energy (SDG 7), work



Fig. 15.2 Reorganization of SDGs

and economic growth (8), industry, innovation and infrastructure (9), and consumption and production (12). Such problems are often seen in relation to stakeholders, society and institutions. This is the level of politics in the model. Solving the problems of management implies collaboration with the political level. In order to attain collective wisdom, we suggest that multiple stakeholders must be involved. Therefore, gender equality (SDG 5), reduced inequalities (SDG 10) and quality education (SDG 4) are important means to ensure broad political participation in the partnerships for the goals (SDG 17) and strong institutions (SDG 16). Management diagnosis and management solutions are in our model always linked, directly or in-directly, to the foundational goals. A management problem like decent work conditions and economic growth cannot be solved in isolation, but needs to take foundational problems into account. A problem-based learning methodology for management education must demonstrate first-level answerability to qualify as part of the “Terrapolis.” We now move towards describing a methodology for management education.

## **A Methodology for Management Education in the Terrapolis**

A politics of natality and of multispecies storytelling involves the integration of natural, cultural, social, political and economic phenomena where we have a first-level answerability to basic social needs and the biosphere: water, plants, animals, air, biodiversity, plurality of human lives. Haraway describes this integration using the term Terrapolis. It has the following characteristics (Haraway 2016, p. 11):

- Terrapolis is a fictional integral equation, a speculative fabulation.
- Terrapolis is n-dimensional niche space for multi-species becoming-with.
- Terrapolis is open, worldly, indeterminate and polytemporal.
- Terrapolis is a chimera of materials, languages and histories.

- Terrapolis is for companion species, cum panis, with bread, at table together—not “posthuman” but “com-post.”
- Terrapolis is in place; Terrapolis makes space for unexpected companions.
- Terrapolis in an equation for guman, humus, for soil, for ongoing risky infection, for epidemics of promising trouble, for permaculture.
- Terrapolis is the SF (String figures) game for response-ability.

In the Terrapolis we stay with the trouble. When we are training management students in the Terrapolis through a PBL methodology, we put them right in the midst of the trouble and want them to stay there to take response-ability. We push the students towards the ground, towards natural, human, social and material geographies. The understanding of how management problems connect to these geographies is the first step in a project. To disentangle this complex web of relations is to realize how the appearances in these geographies are all interconnected and mutually dependent. We are playing Haraway’s game of string figures (SF). When we change in one end, we change the appearance and dynamics of the whole.

In the Terrapolis, these strings are ultimately tied to the “ground”—to a place of waterfalls, tides, forests, birds, trees, sand, mud, air, animal and human lives. These strings are also attached and tied to the creation of an artificial world, to the use of technologies, to interactions, to the creation of material inequalities, to the possible accumulation of profits and capital at one end and to deprivation and exploitation at the other end. We are not only trying to map these relations. We are also trying to figure out where the weak spots are, especially seen in relation to the highest principles of natality and multi-species storytelling. Only through this kind of diagnosis can we together produce long-term sustainable solutions. Finding such solutions is of course much more complex because multiple strings are entangled in complex webs where some are more visible than others. The production of possible solutions, or antenarratives (Boje 2001, 2008), affects the whole. Therefore, the road towards final solutions is a continuous learning process where solutions should crystallize and mature in conversation and dialogue with multiple, diverse stakeholders. Below we convert a model of true storytelling (Boje et al. 2016)

into stages for playing (SF) with the purpose of finding and identifying sustainable solutions.

## True Storytelling

The model for problem-based learning with the four phases and seven principles is illustrated in Fig. 15.3. The model has four phases in a circular process: (1) what is true storytelling now; 2) how to plan: future; 3) when and where to do: project; and 4) reflect on outcomes. Furthermore, the model has seven principles:

1. Truth: You yourself must be true and prepare the energy and effort for a sustainable future.

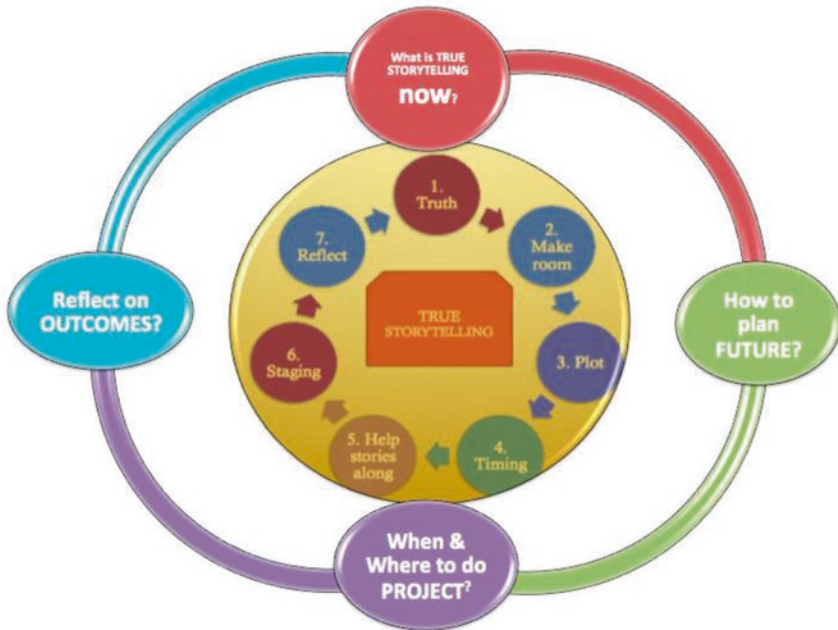


Fig. 15.3 True storytelling. (Source: Boje et al. 2016)

2. Make room: True storytelling makes spaces respecting the stories already there.
3. Plot: You must create stories with a clear plot creating direction and help people prioritize.
4. Timing: You must have timing.
5. Help stories along: You must be able to help stories on their way and be open to experiment.
6. Staging: You must consider staging including scenography and artefacts.
7. Reflection: You must reflect on the stories and how they create value.

PBL management education can use these phases and principles to realize the UN SDGs; we discuss each phase and principle below.

## Phase 1: What Is True Storytelling Now?

*Truth: Be true and prepare the energy and effort for a sustainable future:* Play the SF game with the purpose of mapping relations, attachments and knots, and address the weak points in the complex web of relations. It is these webs, relations and networks that need to change in order to produce a sustainable future. In Fig. 15.4, we have given an example of what questions are appropriate for a project under the SDG 12, Responsible Consumption and Production. We have deliberately grouped problems concerning poverty, hunger, health, work conditions and inequality in the area concerning supply chains, resource use and global production processes because the whole history of Western Capitalism has involved exploitation of cheap labour (sometimes even child labour) and cheap resources in so-called third world countries. Globalization only seems to have accelerated such problems. The SF game identifying the strings of relations in responsible consumption and production might move beyond national borders and across continents. What we do in a company in North Jutland might affect air, water, work. To be true and prepare ourselves for a sustainable future is to take response-ability for such relations.





Fig. 15.4 Mapping the strings of relations concerning responsible consumption and production

**Make Room: True Storytelling Makes Spaces Respecting the Stories Already There** The second principle is to identify the knots of actors and strings of social relations and what role they play and can play in a Terrapolis. We take response-ability for a damaged world. The social and material infrastructure embedded in the dynamics of that damaged world is the historical, spatial and material conditions of the problem that we cannot deny but rather must embrace in facing the problem. This principle implies identifying dominant narratives as well as marginalized voices and stories and to get them to work together towards a holistic and sustainable solution. The SDGs 16, Peace and Strong Institutions, and 17, Partnerships for the Goals, imply collaboration across companies, public organizations, civil society, NGOs and Education. What companies and actors can take response-ability for and where the boundaries go vary with each problem, but we cannot in any case deny our response-ability when we claim to be true storytellers. This principle involves delving deeply into cultural, social and material relations in local communities to figure out what stories are there and how we can build on these stories to move towards sustainable communities and good health and well-being.

## Phase 2: How to Plan the Future?

**Plot:** Planning the future, the plot, involves firstly to play an antenarrative SF game. Antenarratives are for Boje (2001) before narrative closure and they are furthermore *bets* on the future. Antenarratives are more loose and fragmented, and contain a vision rather than a clear plot. An antenarrative game would be to pull the strings at different points in the webs of relations identified in principle 1. Ideally, this step would invite different stakeholders to take part in the antenarrative SF game. The purpose of pulling different strings, for example, transportation or the span of the product life cycle, is to identify possible consequences and scenarios for the dynamics of the Terrapolis and the roles that each actor plays and will play if certain dimensions of the Terrapolis are changed. This principle describes an antenarrative learning performance, where different scenarios are identified and where certain solutions should begin to crystallize as possible and realistic future scenarios. The multi-stakeholder involvement is important for negotiating and making new alliances across the board but again the principles of natality and multi-species storytelling are in the end non-negotiable markers where we must make progress. There is no planet B.

**Timing:** Timing is part of planning the future. The Terrapolis is poly-temporal as noted by Haraway. This difference and plurality are at once a part of the development and dynamics of the Terrapolis and will always be there. On the other hand, we try to create a holistic symphony where the different strings become somewhat aligned. Time is important here. Water, air, life, flora and fauna are temporal phenomena. In an important sense, natality and the eternal recurrence is a question of time. We have to adjust planning, production processes, resource use, product life cycles and so forth to the more physical notion of time, which is embedded in the principle of natality. Lifestyles have to change as well. This principle is radical. It means aligning human time with physical time. The Capitalocene has severed this connection and has caused the Anthropocene as we discussed in the beginning of the paper. Current economic relations of consumption and production work according to a notion of time, which is beyond this world and accelerates the extinction rates further.

Therefore, it is urgent to work out new sustainable production processes, new business models, expand product life cycles in order to create a new kind of economy.

### Phase 3: When and where to Do Projects?

**Help stories along:** This phase helps stories along by enabling collaboration between stakeholders across borders. We confront all the problems in practice in this phase. In other words, we begin to pull the strings and change the whole network of relations. Storytelling conversations, dialogues, coaching, negotiation, experiments, human resource management tools and concepts are all parts of the toolbox that management students may try to use in practice in this phase to keep the process going and to adjust when sustainability projects face problems. There are some important principles. Like in all phases, management students have to be present in time and space and virtually feel (i.e., the tentaculum metaphor) all the relations and forces on their own bodies. To a realistic degree, they must try to be part of showing the way forward rather than just saying it or writing it. Leading is being part and doing. For management students it is important to try to be part of leading. Then they understand that management is action and not analysis.

**Staging** This principle is another part of action. In this principle, we need to stage the socio-material setup in terms of specifying new material practices, systems, architectures, objects, artefacts and other kinds of reifications of desired stories in action, new collaborative relations, new habits and communicative patters, new systems of control and surveillance of organizational practices. This stage helps stiffen the new practices.

### Phase 4: Reflect on Outcomes

This is where PBL and true storytelling integrate to keep the cycle of learning happening. Reflecting on the ability of small movements to become big socio-economic and ecological movements that shift away from the Sixth Extinction is critical.

## Conclusions: Becoming more Dialogical

We need to get away from learning methods that are anti-dialogical. The storytelling conversations in all phases of the true storytelling model are both dialogical and dialectical. Through the model we can work systematically towards interventions that bring out the dialogical, and overcome the anti-dialogical and the anti-dialectic. This key difference is found in the work of Paulo Freire's pedagogy of the oppressed (Freire 1996). He uses the term "*Conscientização*" inquiry into the situation of the entanglement of oppressor and oppressed. *Conscientização* implies a "critical consciousness" that addresses "fear of freedom" a "search for self-affirmation and thus avoids fanaticism" by placing the status quo in question (Freire 1996, p. 36). *Conscientização* is a methodology in generative storytelling conversations of self-correcting by a "deepening attitude of awareness that is characteristic of all emergence" (Freire 1996, p. 109). Freire's model is an interrogation method of "non-communicative" (Freire 1996, p. 109) "oppressor action" with the "aim of concurring them." Dialogical conversational storytelling is liberation by back-and-forth co-inquiry into "liberating action."

Now, in Denmark a politician is burning the Koran. In the United States, a president withdraws from the Paris Climate Change accords and engages in climate denial. At a time when we need to be dialogic, and dialectical in a constructive way, we have only anti-dialogical and anti-dialectical politicians. People are manipulated by what Freire (1996, p. 147) calls the "series of myths" to accept and confirm myths of "unequivocal interest of the dominant elites." The tragedy that Freire exposes is the oppressors are caught in their own trap, elevating dominant elites, hierarchy, and hegemonic Othering instead of finding "true organization" by action of critical consciousness arrived at by the *conscientização* methodology into praxis. Much of the theoretical tools in management education belong to the tool and apparatus of cultural invasion conquest, colonization and manipulation that entrap both oppressor and oppressed.

As Linda Hitchin (2014) points out it keeps the "untold story" in a cell of silence, or in fear of "living story" liberation. Bakhtin (1981) calls it polyphonic dialogism, to be fully in one's own dialogical standpoint, while in a sacred space of listening, sharing, but not persuading by

interrogation. Bakhtin (1993) was anti-dialectical, but had great sense of ethical answerability for being the one person informed and aware that had the obligation to intervene. Freire (1996) is dialectical and dialogical in seeking to transform the work “in the dialectic of these relationships, the *thous* which become two I’s” in the “dialogical theory of action” (Freire 1996, p. 167). Freire opposed the “banking model of education” the expert depositing knowledge into the mind of students. Part of the problem is that anti-dialogical and anti-dialectical methodology dominates the social sciences. Conversational storytelling science finds concrete and grounded existence by co-sharing-, co-inquiry in the act of reflection in the double movement of dialectical and dialogical self-correcting co-inquiry. It can become the basis of resituated rejoining of the deconstructions unveiled in self-correcting storytelling.

*Conscientização* methodology can be an important part of true storytelling PBL methodology. It is a way of demythicizing of colonial agents’ subversion of critical consciousness. *Conscientização methodology* put into *praxis* can be a quest for not only humanizing that reality but revering ecology, and how both oppressor and oppressed are subjects of social constructions that mask structural inequalities that are not only crimes against humanity but crimes against Mother Nature. Deconstructing ideologies of oppression in education begins with *conscientização methodology* put into *praxis* in the classroom. This requires courage. Paul Freire was jailed in 1964 for helping illiterates find literacy, which greatly offended the Catholic elites in Brazil. Freire taught *Conscientização* critical consciousness that disclosed a fear of freedom and a banking method of education privileging the status quo. Freire dared to teach critical thinking as a problem-based learning approach, by inviting students to learn about obstacles to humanization, their own subjection.

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# 16

## Liquid Times – Newness and Uncertainty: An Innovative AAU PBL Response

Romeo V. Turcan

### Introduction

In this chapter, I put forward a Holistic Problem Based Learning (HPBL) model that integrates research-based teaching and learning and teaching-based research, and redefines the PBL process. I build on the Aalborg University (AAU) PBL model (Kjersdam and Enemark 1994; [www.pbl.aau.dk](http://www.pbl.aau.dk)) that has been part of the AAU DNA since the university inception in 1974 ([www.en.aau.dk/about-aau](http://www.en.aau.dk/about-aau)) and the revised Bloom's Taxonomy (Anderson and Krathwohl 2001) to redefine the PBL process. At the same time, I reflect on my personal experience in engaging with PBL from the moment I started my full-time position at AAU in 2010. Before discussing HPBL, I set the stage by a review of the 'liquid times' (Bauman 2007) we live in, highlighting the impact of newness and uncertainty—quintessential by-products of these 'liquid times'—on

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collective behaviour, free will, ascertaining what the future holds for our graduates, and conjecturing how to mitigate these challenges. As part of the HPBL discussion, I will introduce the basic principles, pillars a PBL model rests on. I will conclude by underlining pointers for future research, policy and practice.

## Navigating Liquid Modernity

Do we live in liquid times? I concur with Bauman (2007) who maintains that we do. The human history has been punctuated by periods of “...seminal and closely interconnected departures...” from what is being normal or expected that “...create a new and indeed unprecedented setting for individual life pursuits, raising a series of challenges never before encountered” (Bauman 2007, p. 1). Thirty-five years ago, in his book ‘The Adaptive Corporation’, Alvin Toffler (1985) warned that “*One has to be blind to be unaware that something extraordinary is happening to our entire way of life. The swift spread of microprocessors... biotechnology... the electronicization of money... the convergence of computing and telecommunications... the creation of startling new materials... the move into outer space... artificial intelligence – all such technological advances are accompanied by equally important social, demographic and political changes*”. (Toffler 1985, p. 3)

Today we do witness—and unfortunately quite often ‘turn a blind eye’ on—interrelated, mutually reinforcing events or ‘liquid states’ (to name a few) at all levels of our daily life, in:

- *Politics*: Brexit... Elections in United States (Trump), France (Macron), Hungary (Orban); Europe of Brussels versus Europe of Nations; Protectionism; Anti-globalism, De-globalization and late globalization (Turcan 2016; Turcan et al. 2020); Slowbalization (*The Economist* 2019)
- *Science and technology*: Genetically modified crops; Nuclear energy; Fracking; Global warming; Artificial Intelligence; Big Data; Block Chain
- *Health*: Eating disorders; Immunization; Resistance to antibiotic

- *Social*: Mass migration; Extremism; Terrorism; Nationalism; Chauvinism; Sovereignty
- *Ethics*: Astroturfing; Astrotwitting (Lee 2010); Fake news; Post truth politics

What do all these ‘liquid’ states have in common? They share at least three key properties. They all have a high degree of (i) *newness*, (ii) *innovative power*, and (iii) *negative social impact*. Individually or collectively, they singularly affect the ‘*free will*’. Newness brings with it *uncertainty*, defined as “any lack of sure knowledge about the course of past, present, future, or hypothetical events” (Downs 1957, p. 77). It also brings *ignorance*. It seems ignorance still “... *is the great peril represented by the present situation... Ignorance even more than poverty. It is in such a situation, faced by such a danger, that we think of attacking, mutilating, and stripping all [education] institutions, whose precise purpose is to pursue, combat, and destroy ignorance!*” (Victor Hugo 1848); though, Victor Hugo warned about its effects on behaviour and institutions, especially in higher education, in the middle of the nineteenth century. Ignorance is socially constructed (Smithson 1985) and manifests in the absence of true knowledge and/or when the latter is distorted (Moore and Tumin 1949). As *conscious* ignorance, it can be seen as a “necessary (although not sufficient) prerequisite for positive learning or discovery”. As *meta-ignorance* or “*ignorance of one’s own ignorance*”, it is self-enforcing (Smithson 1985, p. 156), imposed by outsiders who decide how much you know or should know and/or how real or complete the knowledge is. The latter assumes ignorance can be negotiated; however, through the exercise of power, people are kept in ignorance or can be made or labelled ignorant, thus leaving no room for negotiation.

George Orwell (1949) prophesized such a meta-ignorant world: “*The party told you to reject the evidence of your eyes and ears. It was their final, most essential command*”, which we now recognize, especially in ‘Trump’ America, as exemplified in one of Trump’s appeals to his base: “*And just remember, what you are seeing and what you are reading is not what is happening*” (Trump 2018). We can also identify it through the exercise of power via on-line mass media and/or data (Big Brother alike in Orwell’s novel) as in Facebook–Cambridge Analytica scandal, Internet censorship

in China, the erection of Internet (on-line) Iron Curtain in Russia, or Post-Brexit news censorship in the United Kingdom (UK) (Vignette 16.1). Newness, through uncertainty, also brings *fear*, "...a sense of impotence that we are no longer in control, whether singly, severally or collectively" (Bauman 2007, p. 26) and—reinforced by ignorance—a sense that we have limited freedom to choose.

### Vignette 16.1: Post-Brexit News Censorship in the UK

The exercise of power is being exemplified in the UK where the Prime Minister's Chief Special Advisor, Dominic Cummings, who has made it clear that 'News' will be controlled and mediated through N.10. Already unsympathetic journalists have been excluded from Prime Minister briefings, relocated from Parliament to No. 10 Downing Street; there is a ministerial boycott of the BBC morning current affairs and news radio programme 'Today' and Channel 4 news because they are deemed to have been hostile in their coverage of Brexit. Already wounded by an extraordinary transfer of public social expenditure c.£650 m per annum (responsibility for free TV licences for over 75 s), which is causing a massive scaling back of its news coverage, the very future of the BBC as an independent public broadcaster is openly mooted by ministers and this threat is already seriously inhibiting its independence.

The trends identified earlier, through their 'liquid' newness nature, their innovative power with negative social impact have yet another dimension in common, that is, the meta-impact dimension. At the meta—politics, science and technology, health, social, and ethics—level, these liquid states impact, inter alia, the coping mechanisms people adopt to deal with existential threats to their free will, individual and collective choices and actions, as well as safety nets. In secure and certain times and environments, *conformity* to rules is seen as virtue that serves individual's interests (Bauman 2007). However, this is no longer the case in insecure and uncertain settings where conformity to rules is replaced by *flexibility*: "...a readiness to change tactics and style at short notice, to abandon commitments and loyalties without regret – and to pursue opportunities according to their current availability, rather than following one's own established preferences" (Bauman 2007, p. 4).

Another defence mechanism is to *cocoon* (see, e.g., Turcan 2012), that is when people tend to revert to their safety nets, safety zones. In such liquid times when their existential comfort is threatened or “in the absence of existential comfort”, people tend “...to settle for safety, or the pretence of safety” (The Hedgehog Review Editors 2003). However, as the Facebook–Cambridge Analytica scandal demonstrated, *cocooning* as a coping strategy to safety nets or zones or so called ‘pretence’ safety nets or zones are not or can no longer be ‘safe’, proof from external, liquid states, and respective trends. When Cambridge Analytica started working for the Trump campaign, they claimed to have managed to get 5000 data points on every American voter (The Great Hack 2019), allowing Cambridge Analytica—based on a combination of behavioural science, data analytics, and innovative advertising technology—to develop individualized communication campaigns, thus breaching the safe zone cocoon often without the recipients appreciating that their space was being overseen and manipulated.

In this liquid modernity, another defensive, coping mechanism to deal with newness, uncertainty, and fear is to *deny science*, as for example today in the case of environmental and global-warming and vaccination denialism. Science denial is a widespread phenomenon at all societal levels: scientists, governments, political and religious organizations, industries, media, and public (Bjornberg et al. 2017). It “... poses a serious threat to human health and the long-term sustainability of human civilization” (Hansson 2017, p. 39). It is fuelled for example by: exploiting conspiracy theories; relying on fake experts; selectivity or cherry picking, drawing on isolated papers that challenge the dominant consensus; creating impossible expectations of what research can deliver; using misrepresentation and logical fallacies; neglecting refuting information; and fabricating fake controversies (Diethelm and McKee 2009; Hansson 2017).

On the demand side, ignorance is one of the factors that sustains such science denialism as Orwell predicted: “ignorance is strength” (Orwell 1949, p. 19), conjecturing that the greater the ignorance of the masses, the stronger their governments become, alluding to totalitarian governments. Reflecting on Orwell’s book, van Den Bossche wrote in 1984 that it “...contains no prophetic declaration, only a simple warning to mankind” and the “... personal tragedy of Winston is only a small incident in the worldwide agony of human freedom” (van Den Bossche 1984).

‘Europe of Nations’, ‘Brexit’, and ‘Trumpism’ are powerful examples of a strong relationship between ignorance and government strength in *advanced* democracies! There is also another feature that is built in these examples, namely that complex issues are reduced to simple short slogans repeated constantly until they become an established neo truth. The slogans are effectively designed to deny an evidence approach to solutions on the basis that the solution is self-evident in the slogan and there is no basis for further debate: ‘America First’; ‘drain the swamp’; ‘take back control’; ‘get Brexit done’. It could be argued that under the veil of democracy Western governments have mastered, as Centinel (1788), an anti-Federalist, put it, “*Machiavellian talents...who excel in ingenuity, artifice, sophistry, and refinements of falsehood, who can assume the pleasing appearance of truth and bewilder the people in the mazes of error*”, becoming highly adept in managing public information.

Finally, I would like to discuss another liquid meta-impact on the *future workforce, graduates*. Specifically, the impact which rapidly emerging fields such as artificial intelligence, machine learning, block chain, FinTech, robotics, 6G, nanotechnology, 3D printing, genetics and biotechnology will have on the number and availability of future jobs, forms of organizing and business models, and on skills and competences of the future workforce (Table 16.1).

**Table 16.1** Evolution of graduate’s profile

2015	2020	2030
Complex problem solving	Complex problem solving	Mental elasticity & complex problem solving
Coordinating with others	Critical thinking	Interdisciplinary knowledge
People management	Creativity	Critical thinking
Critical thinking	People management	Creativity
Negotiation	Coordinating with others	People skills
Quality control	Emotional intelligence	STEM skills
Service orientation	Judgement & decision making	SMAC skills
Judgement & decision making	Service orientation	
Active listening	Negotiation	
Creativity	Cognitive ability	

It was expected that on average 35% of the skills considered important for the workforce would have changed by 2020 (Grey 2016). This can be seen in Table 16.1 by comparing changes in the skills predicted in 2010 and 2015 for 2015 and 2020, respectively (Grey 2016). However, predictions of changes in skills by 2030 are much higher, most probably double, up to 70% (Table 16.1). Today's predictions for 2030 clearly suggest a significant change in the skills and competences profile of graduates. Compared to the 2010 and 2015 predictions, only 'complex problem solving', 'critical thinking', and 'creativity' maintain their positions in the top three of the skills set ([www.crimsoneducation.org](http://www.crimsoneducation.org)). People, STEM (science, technology, engineering, and maths), SMAC (social, mobile, analytics, and cloud) and interdisciplinary knowledge<sup>1</sup> skills were added. At the top of the skills set for 2030 is a new skill: 'mental elasticity that is about "...mental flexibility to think outside the box, see the big picture and rearrange things to find a solution" (<https://numberworksnowords.com>) for problems never seen or encountered in this liquid modernity.

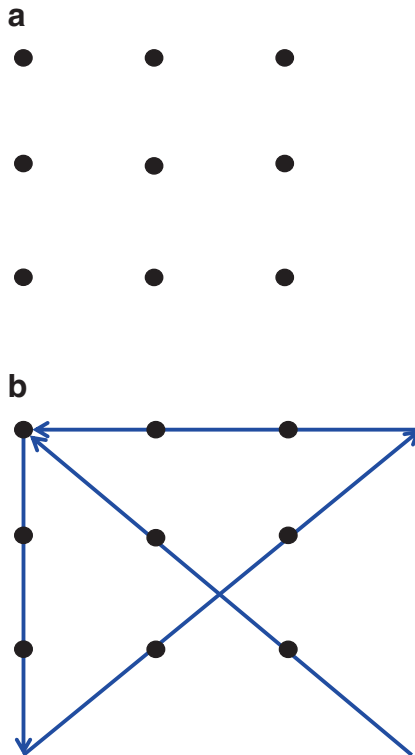
I concur that 'mental elasticity' and 'complex problem solving' are the top skills that graduates should already be considered the top competences. Indeed, as Ionesco (cited in Wells, 1997, p. 15) underscored: "*It is not the answer that enlightens, but the question*" and in today's and tomorrow's liquid world there will be 'tons' of never-seen-and-never-encountered-before problems that will indeed enlighten and need outside-the-box thinking. What I suggest as a second most crucial skill to acquire is 'interdisciplinary knowledge'. It is these interdisciplinary insights that allow us not only to think outside 'the box', but also to step outside 'the box'. Indeed, as Einstein warned that existing (or future) problems "*...cannot be solved by the level of thinking*

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<sup>1</sup>'Interdisciplinary' has become a buzzword. It is on everyone's agenda, to-do-list, strategy, vision, or mission. The experience shows that, it is quite difficult, sometimes impossible, to implement it. To be promoted, staff has to specialize and his/her research and publications shall be within that specialized area. Field journals are also specialized; they do not accept research multi-disciplinary papers. Across a university, staff from different disciplines agree easily on conducting research jointly, but expressly state from the beginning of their collaboration that publication will be separate. Furthermore, interdisciplinary education can be stifled for example by internal education funding mechanisms, such as 'money follow the student'. 'Loosing' students to another discipline or study programme means less money for the 'home' study programme. As Geoffrey G. Jones said in his opening speech at a panel at EIBA conference in 2019: "*Inter-disciplinary research is a 'kiss of death' for academic career*". Changing mono-disciplinary culture or paradigm is necessary to a successful implementation of HPBL model.

*that created them*” (cited in Prensky, 2009). Or as “Gödel has shown in relation to mathematics, there is a fallacy in the idea that the propositions of a system of thought can be proved, disproved, or evaluated on the basis of axioms within that system” (Morgan 1983, p. 15). In other words, interdisciplinary knowledge—that can be acquired, for example, by majoring or minoring in different disciplines or fields (see e.g., Sternberg 2008)—at the level of phenomenon, theories, methods, and contexts is required to step *and* think outside ‘the box’. I illustrate this proposition with an example (Fig. 16.1).

The task is to connect the nine dots in Fig. 16.1a by four straight lines without lifting the pencil from the paper. During my lectures to academic staff on PBL, before discussing the solution to this puzzle



**Fig. 16.1** Paradox of change. (a) Feeling comfortable in own ‘black-box’. (b) Stepping out and thinking outside the black-box

(Figure 16.1b), I ask the audience to reflect on their attempts, processes for solving it. Their reflections amount to an assumption that "...the dots compose a square and that the solution must be found *within* that square" (Watzlawick et al. 1974, p. 25, original emphasis). In other words, we resort to what we are used to practicing in our daily academic life, that is, to wear the same, familiar phenomenon, theoretical, methodological and method, and context lenses to address a problem or a question. A solution to this puzzle demands us to stop:

- studying the dots (or their underlying assumptions);
- wearing 'used' phenomenon, theoretical, and/or context lenses;
- employing 'familiar' methodologies and methods.

A new type of mental elasticity is needed to deal with high degree of newness, innovative power and negative social impact in modern liquid times. An elasticity that allows us to start examining and questioning the assumptions about the dots or the empirical reality in question by:

- becoming context-free;
- thinking outside the box;
- seeing a big picture and reframing the problem;
- putting on new methodological and/or theoretical lenses;
- employing new, untried research methods and techniques;
- rearranging the dots to find a solution and create new knowledge.

A focus on newness, innovation power, and negative social impact—political, scientific and technological, social, economic—is integral to the human condition in today's liquid times. The scale and speed of contemporary change and the ability to manipulate and manage public opinion in all spheres of life and on a global basis presents a dimension to 'newness' which calls for a radical review of curriculum, what should be learnt and how. What and how we learn, how we create, how we evaluate, and reflect on new knowledge, how and what we assess in this new knowledge will be the subject of the next section, which will examine how and why PBL provides an instrument which helps to prepare the learner to develop the 'mental elasticity' to meet the enveloping challenges of 'newness'.



## Innovating AAU PBL Model

### Getting to Understand PBL

I started learning about PBL when I commenced my full-time position at AAU in 2010. From the beginning, I had difficulties in understanding PBL, what it was, how it worked in practice, how it was different from what I experienced during my MSc and PhD studies at the University of Strathclyde in Glasgow. Despite numerous valuable inputs from my colleagues and my readings on the subject, I kept calling it a ‘thing’.

The first test of my understanding and exploiting PBL was not far off. I was appointed as a coordinator of the fifth semester of our Bachelor Programme in Economics and Business Administration. In this semester, the students in groups had to write a 25 ECTS project based on real companies. As a newcomer, I had a challenge to find around ten local companies to work with student groups over the semester. On top of that, I had to design the process of student–company interaction without violating AAU PBL principles. Our Study Board was watching over my shoulder to make sure I lived up to set PBL expectations and standards. During 2010, I designed a PBL project concept of ‘Student–Company Fair: Toward a 3rd Generation of PBL<sup>2</sup>’ and launched it in 2011 as a joint project between the International Business Centre ([www.abc.aau.dk](http://www.abc.aau.dk)) I was part of and Supporting Entrepreneurship at Aalborg ([www.sea.aau.dk](http://www.sea.aau.dk)) who secured participation of companies. It became a success as the feedback from students and companies demonstrates (see Vignette 16.2). It was also appreciated by the university management; the Vice-Rector, Inger Askehave, having attended one of the fairs stated that “*[the student-company fair] is truly breathing life into Aalborg problem-based learning model... it is problem-based learning in practice... It is one of the ways to innovate our problem-based learning model*” (<https://bit.ly/2NYt1fb>). In 2015, the Student–Company Fair was terminated.

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<sup>2</sup>You may read in more detail about the ‘Student–Company Fair: Toward a 3rd Generation of PBL’ on <https://bit.ly/3allqza>

**Vignette 16.2: Students and Companies' Feedback on Student–Company Fair: Towards a 3rd Generation of PBL**

After each 'Student–Company Fair', the organizers distributed to the participants—the students *and* the companies—a 'Learning Reflections' questionnaire, asking them to provide their feedback on their experience from the fair. Below are excerpts from students and companies' feedback.

*Students' feedback:*

- Discussing with real world businessmen, and understanding actual real-life problems companies have and we could solve
- We had the chance to choose the most attractive company for our semester project
- The fair made us more motivated to put more efforts into studying, as well as learn more about the entrepreneurs and companies can be creative
- The thing that 'we have to sell ourselves' to the company was very attractive—it gave us experience which we will need when looking for a job in a future and going to work interviews
- We should forget our personal fight during the meeting and talk as a group without problems; the company doesn't have to feel that people in the group don't like each other
- I was surprised by willingness of the companies to collaborate with students and the fact that they value our opinions and ideas
- Getting 10 interview experiences within less than two hours is a great opportunity
- We've got an opportunity to try acting in a challenging and competitive working environment and realized that we have to stand out from the crowd
- It is interesting to understand that every 'field' could become your business idea

*Companies' feedback:*

- What was most attractive at the fair was diverse nationalities within the groups, students were quite engaged, and well prepared; good group CVs
- Very motivating students, with strong background in the field of business, and strong communications skills with clear focus on the semester project
- We had a real good discussion with the groups about the project and our product, and during these discussions we have already learned something we can take from the fair, even without starting the project—this was great experience

(continued)

**Vignette 16.2** (continued)

- Each team had a comprehensive introduction of the team, and each member individually; personally I found very hard to evaluate each team because I felt each team was able to provide, at least to our company, a lot of inputs
- It has been a pleasure. On the way to the fair I was thinking to have a nice, relaxing four hours before I go to work. But it did not happen. What happened? Well, I had to think a bit more than I expected. I actually had to come up with some fresh ideas
- It is an experience we could get value from...new knowledge and exciting questions. Do it again next year, great event
- The students were well prepared and knew a lot about our company... and had very creative introductions
- In discussions, going through the history, idea and aspirations of our company generated new ideas, and new possibilities for development

We learned from our mistakes during the implementation of the concept in 2011 and continuously improved it in the next three years. The verb ‘solve’ in the AAU model does not reflect the spirit of PBL teaching and learning. It creates an expectation from both sides: companies and students, that a problem *will* be solved. In turn, this sets an ‘employer–employee’ or ‘contractor–consultant’ type of relationship and behaviour between a company and a group of students, thus substantially narrowing down or limiting the scope of learning and knowledge creation by the students. After all, “it is not the answer that enlightens, but the question”, as Eugene Ionesco maintained.

Another outcome was that there was no common understanding of the PBL process and approach among supervisors who were allocated to mentor the groups. As a result, I introduced compulsory joint debriefing meetings with all supervisors to make sure that they not only mentor the students, but also make sure the relationship between companies and groups follows the tenets of PBL. I did the same with the companies, though in an open setting at the beginning of a ‘Student–Company Fair’, setting the rules of the ‘game’.

Another important lesson was the use of NDAs—Non-Disclosure Agreements—or more precisely ‘blind-use-of-NDAs’ by all concerned. In 2011, after the students submitted their final project reports for examination, we organized a ‘Semester project competition’ day where the groups presented their projects to a panel and the first three groups

received prizes. It turned out that those groups that signed NDAs were not allowed to participate in the competition. Later I learned that this blind-use-of-NDA imposition by companies on students and supervisors was widely practiced across all semester and programmes. If we NDA all students work, especially blindly, then there will be no learning, progress, knowledge dissemination, and/or transfer. This blind-use-of-NDA approach goes against the EU call for Open Science and FAIR Data Principles that encourage making data findable, accessible, interoperable, and reusable (<https://bit.ly/36Msa8e>). Consequently, I refused to agree to the blind NDA and informed the Study Board. I proposed a compromise that later I implemented: companies and students have to highlight only sensitive text or/and content, extract it from the report, NDA it, and place it as an appendix. This allowed company sensitive data and information to be kept confidential, *and* open knowledge dissemination and transfer on non-sensitive outcomes.

The second big test started in 2015 when I won and coordinated an EU/ERASMUS+ funded project to implement PBL-based teaching and learning in Moldova in six BSc study programmes from six different, specialized universities ([www.pblmd.aau.dk](http://www.pblmd.aau.dk)):

- BSc in Business Administration (Academy of Business Studies of Moldova)
- BSc in Business Administration and Entrepreneurship (Cahul State University, a regional university in the south part of the country)
- BSc in Law (Moldova State University)
- BSc in Public Administration (Balti State University, a regional university in the north part of the country)
- BSc in Public Health (State University of Medicine and Pharmacy)
- BSc in Software Engineering (Technical University of Moldova)

Each local university team was free to choose the level of pilot implementation of PBL: subject, module, semester, study programme, department, faculty, or university. The early stage of development and implementation revealed the extent of our ‘taken-for-granted’ understanding and beliefs about PBL. Implementing PBL in an emerging, developing economy underscored the extant institutional voids at macro,

meso, and micro levels that questioned our assumptions and expectations about PBL. It also pointed to the nature of these assumptions and expectations. The explicit ones were generic and difficult to understand how to apply and implement, hence see their practical value. Tacit assumptions and expectations were challenging to document and thus to ensure their transferability to other study programmes due to specificity of their scope and applicability. To deal with this dilemma, we identified and made explicit generic pillars of a PBL model (discussed later) and then each study programme team developed its own ‘PBL Sustainability Strategy’ taking into account their aspirations, resources, and capabilities (<http://pblmd.aau.dk/>).

An example of the assumptions was that PBL should be based on *research-based teaching*, which is the basis of the AAU model. This was virtually impossible to implement in Moldova because research, including doctoral education, was restricted to the Academy of Science of Moldova and only recently incorporated as an expectation for universities. Consequently, the experience and infrastructure, which we took for granted in Aalborg was for the most part absent in Moldova. Another assumption was that PBL should be supported by *teaching-based research* and this too was not part of the university culture in Moldova. This made me reflect that the AAU PBL model lacked an explicit, transparent teaching-based research component. These insights have had an impact on the enhancement of the AAU PBL model, which I will discuss later.

The third big test came in 2017 when I received an invitation from the AAU PBL Centre under UNESCO ([www.ucpbl.net](http://www.ucpbl.net)) to deliver a lecture on PBL to guests from Europe, Middle East, and Asia. They wanted to learn about the AAU PBL model, how AAU implements it with a view to implement PBL at their institutions. I perceived the invitation as a recognition of my understanding and practice of PBL. True as it might have been, I realized that I had much to learn about PBL. In preparation for the meeting, I asked the participants to send me a set of key questions, presented below:

- Criteria for the selection of Instructors to teach PBL
- Criteria for the selection of the Units to be taught using a PBL approach
- PBL Best Practices in the classroom

- Assessments of PBL assignments/work
- How to engage companies in PBL activities

I realized that I could not answer these questions directly. The more I reflected, the more I came to fathom the need to ‘flip’ the questions to account for the inception stage of PBL understanding and implementation at micro, meso and macro levels at a higher education institution that has no experience in PBL. The ‘flipped’ questions are presented below in italic, following the original ones:

- Criteria for the selection of Instructors to teach PBL
  - *Do you have staff willing to instruct in PBL?*
- Criteria for the selection of the Units to be taught using a PBL approach
  - *Is there a political will to implement PBL methodology and methods?*
- PBL Best Practices in the classroom
  - *How much of self-directed learning takes place in classrooms and outside?*
- Assessments of PBL assignments/work
  - *Is there an internal PBL research and training centre?*
- How to facilitate PBL activities with/in companies
  - *Do companies understand or appreciate PBL?*

These ‘flipped’ questions were among the main challenges in the implementation of PBL in the six BSc study programmes in Moldova (see [www.pblmd.aau.dk](http://www.pblmd.aau.dk) for details). Political will at the university management level is critical to the implementation of PBL. When rectors were fully behind the idea, I observed two approaches: top-down and bottom-up. In the former, the rector makes PBL part of the university DNA, strategy and asks all the study programmes to become PBL-based.

In the latter, the rector supports (including via incentive mechanisms) PBL-based innovation, but he or she leaves the initiatives to come from heads of departments and/or faculties to implement PBL. To deal with a lack of PBL resources and capabilities, university management facilitated the creation of either a PBL research and training centre or building these functions in the existing pedagogical staff development centres, and PBL training. Based on PBLMD experience, it emerged that student-group-based internships were tough to ‘sell’ to companies in Moldova that were only used to accept individual students for internships. At the beginning, the companies were skeptical and reluctant to host student groups as part of their internship programmes. Students’ mentors, supervisors, sometimes even heads of studies, departments and deans—who undertook PBL training and who already practiced, implemented it—spent time with these companies, explaining the benefits of such a model of internship and eventually convincing these companies to accept the offer. Students’ later superior performance further contributed to the success of this PBL approach to internships.

The fourth test came when as part of the PBLMD project we piloted in 2019 an inter-institutional and interdisciplinary PBL project (PBLIP, for detail please visit <https://bit.ly/2t6AlOQ>). I advanced this ‘dream’ idea of an inter-institutional and interdisciplinary PBL project during my opening presentation at the project launch meeting in 2015. As expected, my Moldovan colleagues reacted saying that ‘it was nice a dream’. When during our penultimate annual project meeting, I refreshed this ‘dream’ to my colleagues in Moldova, they realized that dream is about to become reality. A number of arguments were invoked against this idea. The major one was a lack of legal, normative, and hence internal institutional basis and support for such an activity. However, the internal institutional basis existed in Moldova since 2005 when it joined the Bologna process accepting the Bologna principles that supported internal mobility. In the end, we successfully developed and implemented this pilot PBLIP (see Vignette 16.3).

### Vignette 16.3: An Overview of the Inter-institutional and Interdisciplinary PBL Project

During PBLIP, the students worked in interdisciplinary and inter-institutional teams of six (one student from each MD partner university) to identify, investigate, address, and report an interdisciplinary real-life problem within the scope of Sustainability Development Goals (SDGs). Thus, the scope of PBLIP was defined by the 17 UN SDGs and each group identified a problem for its project within the allocated set of SDGs. Each group was mentored, supervised by an interdisciplinary and inter-institutional team of academic staff. The following problems were identified and addressed by the groups in their mini-projects:

- A study of the impact of social inclusion of 60+ on the development of public institutions
- A study of the impact of biomass on farmers
- A study of the impact of recycling on socio-economic inclusion
- A study of the impact of sustainable development in rural areas on the quality of drinking water
- A study of the involvement of Public-Private Partnerships in environmental projects in the context of sustainable development

PBLIP was a five ECTS module over seven weeks, from the end of February till mid-April, 2019. There were planned and there were ad hoc supervision meetings during this period, including joint meetings with all the groups. For the first time in Moldova, we introduced group exams with supervisory teams as internal examiners and academic staff from AAU as external examiners. All students successfully completed this module and received a certificate to acknowledge their work, participation, and performance. The day after the exams, we organized a project competition day, inviting CEOs of large, medium, and small enterprises to judge students' presentations and performance. The final evaluation was based on weighted average between judges' assessment (70%) and peer-review (30%). Although the groups were finally ranked based on their assessment results, each group received a prize: a study visit to one of the enterprises from the panel.

A number of lessons, translated into impacts, were identified and realized. PBLIP enhanced teaching and learning capacity of faculty and students. As one of the staff members said, PBLIP was one of the best hands-on training experiences she had during the project. PBLIP allowed the faculty to: *engage in joint, interdisciplinary and inter-institutional supervision; evaluate interdisciplinary and inter-institutional group projects; conduct*



*interdisciplinary and inter-institutional group exams; assess individual students and group performance; and offer feedback to the students and the groups. It allowed the students—in an interdisciplinary and inter-institutional manner—to: form and work in groups; jointly identify a problem; identify and use theories and methods to address the problem; finalize and write a project; participate in a group exam; present as a group and individually the project and own reflections.*

I was pleasantly surprised in August 2019 to learn that AAU in cooperation with regional authorities in Northern Jutland had launched interdisciplinary projects—Megaprojects—ranging across the whole University and involving a large number of students working together on addressing problems within SDGs (<https://bit.ly/31kvru7>). According to organizers: “What do a computer scientist, a business economist and a techno-anthropologist have in common? At AAU, the answer is: a great deal. We know that major problems are best solved in interaction between different disciplines. We are therefore taking our well-integrated project-oriented and problem-based learning (PBL) to a new level with megaprojects.”

All projects are based on global problems as formulated in the UN’s 17 SDGs. The students work in mono-disciplinary groups under respective study boards. Inter-disciplinarily of Megaprojects is ensured during a semester when all mono-disciplinary groups meet three or four times to present and jointly discuss their progress, approaches, and findings and in the end, after an exam cycle, to form interdisciplinary groups to jointly present their findings that emerged within a set of SDGs. Forming truly interdisciplinary student groups is not yet possible. This might be due to internal, institutional constraints, such as education funding mechanisms, lack of agile and innovative curricular and study programmes, as well as lack of motivation in and incentives for staff to innovate. Nevertheless, as one of the organizers said about true multidisciplinary teams: *this is our ultimate goal, our dream*. Whether this dream will become a reality remains to be seen.

## Innovating AAU PBL

From its inception in 1974, AAU adopted a PBL model in its teaching and learning. The PBL model became part of AAU DNA, and a main point of differentiation. Employers highly appreciate the quality of AAU graduates compared to graduates from universities that employ a traditional approach to education. A survey of 125 large engineering companies in Denmark was conducted to explore employers' satisfaction with the competences of new graduates from engineering programmes at AAU and the Danish Technical University (DTU, with a traditional approach to engineering education) (Ingeniøren 2004). Both universities scored equally on '*quality of engineering and technical skills*': 86% and 85%, respectively. However, when it came to other skills and competences, AAU graduates scored substantially higher than DTU, respectively:

- Project and people management: 41% versus 9%
- Contact and working relations to industry: 81% versus 50%
- Innovative and creative skills: 81% versus 59%
- Knowledge of business life and economy: 36% versus 18%
- Overall quality of education: 87% versus 74%

The PBL model that emerged over the years at AAU rests on several key pillars. Pillar 1: *project work* is seen as a primary education function, whereas face-to-face activities are seen as supporting ones. The AAU PBL model has at its core project work that runs through three main phases: problem analysis; problem solving; and project report. It is further supported by face-to-face activities such as lectures, courses, literature, tutorials, experiments, fieldwork, and group studies (Kjersdam and Enemark 1994). In the *problem analysis* phase, the students would present, describe, and assess a problem. In the next—*problem solving*—phase, depending on the nature and complexity of the problem, the students identify relevant theory or set of theories, and select appropriate scientific methods. In the *report phase*, the students work on finalizing their project and putting together a final project report that will communicate the results and how they were produced.

Pillar 2: *50:50 ECTS split* between project work and face-to-face activities. The distribution can vary between semesters. For example, there can be a gradual increase of the ratio of project work in Semester 1 say from 5ECTS to 25ECTS in Semester 6 within a Bachelor programme. Pillar 3: *self-directed learning* whereby the students take the lead and assume responsibility for their own learning in a context where the student–academic staff relationship has shifted from asymmetric to a more symmetric power relation (de Graaff et al. 2016). Pillar 4: *progression* in learning objectives and outcomes, knowledge, skills and competences, semester themes, and project work, within and across modules and semesters. Figure 16.2 provides an example of progression across semesters of semester themes, focus and scope as well as project work. In addition, in Fig. 16.2 an example is given of how SDGs could be imbedded in a study programme, contributing to progression and defining for example a broad scope for projects within semesters.

Pillar 5: *types of project work* that contribute inter alia to the above-mentioned progression: assignment project; subject project; problem

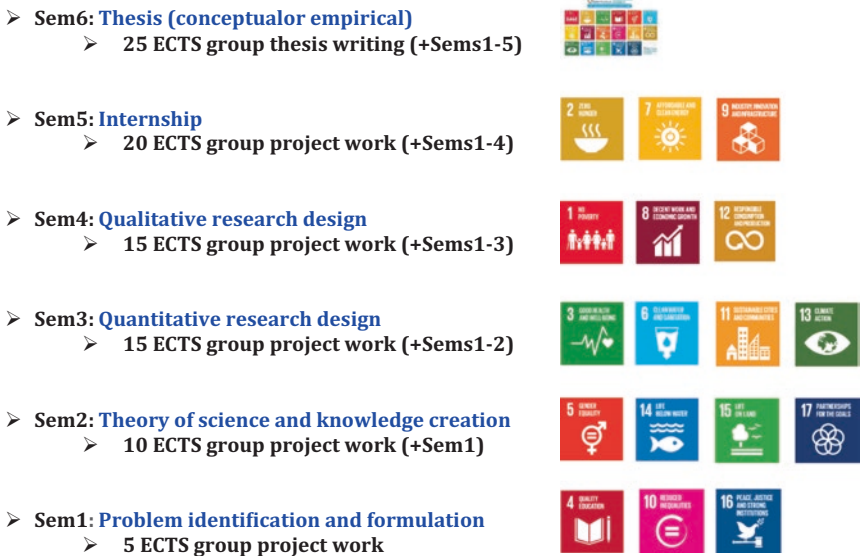


Fig. 16.2 PBL progression

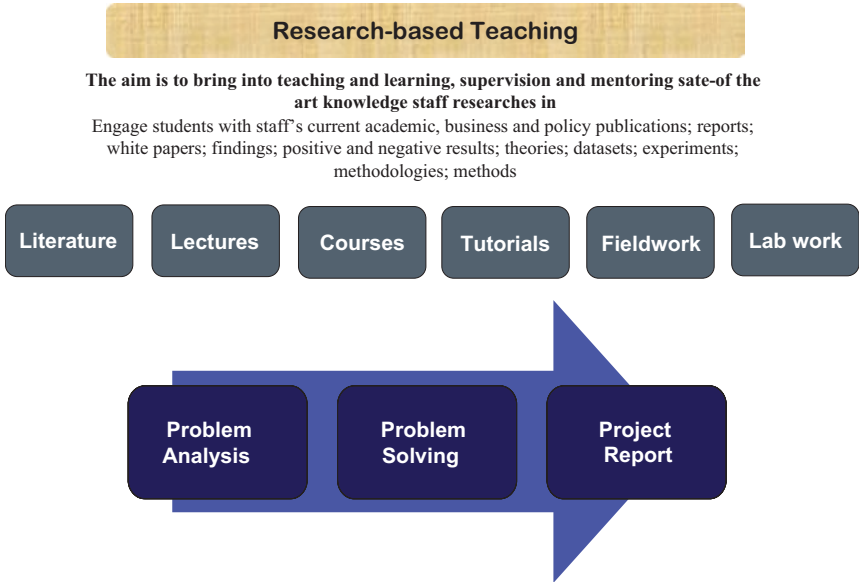
project (Kolmos 1996). In assignment projects, problems, subjects, and methods are chosen beforehand by teachers and/or supervisors who have considerable planning and control over the project work. In subject projects, one of the three components—subject, problem, or method—is chosen in advance and students are free to choose the other two. In problem projects, students are free to choose problems, subjects, and methods. The problem is a point of departure that informs the choice of the subject and the method. Pillar 6: *group work* is the foundation of the project work. There are individual assignments and respective individual assessments and evaluations as part of face-to-face, support activities. Although project work is organized in groups, the assessment of the project work can be individual and/or group as is the case at Aalborg University.

Within this PBL framework, staff and students engage in *research-based teaching*, which is part of the AAU mission (<https://bit.ly/2w1Fp8p>, p. 5): “AAU contributes to the knowledge build-up of the global society as well as to the development of the prosperity, welfare and culture of Danish society. This is accomplished through research, research-based education, public sector services and knowledge collaboration”. The aim of research-based teaching is to bring to teaching, learning, supervision, and mentoring environments *state-of-the-art knowledge and research* staff currently work on. In other words, students are ‘exposed’, ‘brought in’, ‘engaged with’ academic staff’s current, up-to-date academic, business, and policy publications, reports, white papers, findings, results—positive and negative, theories, databases, experiments, methodologies and methods, to name a few. The extant AAU PBL model is summarized in Fig. 16.3.

The Holistic PBL model I put forward (Fig. 16.5)<sup>3</sup> builds on personal observations, experience in engaging in PBL *research-based teaching* and

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<sup>3</sup> The holistic approach to PBL shall be viewed in the context of academic workload, which is taken for granted in most of the developed economies, and poorly understood and/or ignored in developing or emerging economies (as, e.g., the experience from implementing PBLMD project in Moldova demonstrated). Academic workload is the amount of work that is performed by a member of academic staff in a given period comprising of: teaching; research; knowledge transfer; fundraising and administration. Such multi-tasking—being a supervisor and mentor, teacher, researcher, writer, fundraiser, and administrator (e.g., of a module, semester, or study programme; member of study board, academic or department council)—puts huge pressure on academic staff and their performance and motivation. On the other hand, such multi-tasking is not recognized or recog-



**Fig. 16.3** AAU PBL model and research-based teaching

*teaching-based research* (Fig. 16.4) and findings from my action research in policy, institutional, and organizational interventions in two EU-funded capacity-building projects (e.g., Turcan and Bugaian 2015; Turcan et al. 2016), as well as on the revised Bloom's Taxonomy (Anderson et al. 2001).

Drawing on the revised Bloom's Taxonomy, Pillar 1: 'Project work' changes, specifically its key major action descriptors of the three phases of the project work. These PBL action descriptors allow progression within project work. In Phase 1, major concerns are *discovering* and *formulating* a problem. In Phase 2, the overarching effort is on *applying* and *analysing*. In Phase 3, students' major concern is *addressing* a problem, via *evaluation* and *knowledge creation*.

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nized only partly by university management. For example, teaching and administration might have explicit support from the management, including monetary terms; whereas the other tasks are expected to be fulfilled by staff in their own time. Without full, explicit support from the university management of all these tasks, successful implementation of HPBL model is not possible.

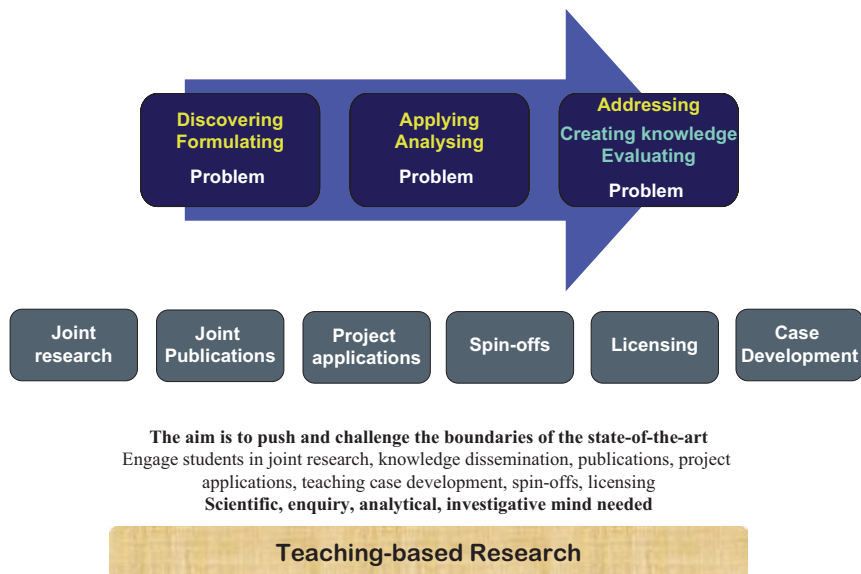


Fig. 16.4 Teaching-based research and revised project work process

In Fig. 16.3, ‘Research-based Teaching’ is only one side of the ‘coin’, of a PBL model. The other side is ‘*Teaching-based Research*’ (Fig. 16.4), the aim of which is to *push and challenge* the boundaries of the state-of-the-art. Staff and students engage in joint research, knowledge dissemination, publications, project applications, teaching case development, spin-offs, and/or licensing, to name a few.

At AAU I piloted this approach—teaching-based research—with one of my Master students, Valeria Gulieva (Turcan and Gulieva 2016a, b). We ‘challenged’ the boundaries of the state-of-the-art by researching advanced internationalization universities via international business and university autonomy theoretical lenses. I presented this approach at one of our Department meetings, after which my colleagues adopted it. Other examples from my experience on teaching-based research include: with Behnam Boujarzadeh challenging the boundaries of globalization by researching late-globalization and de-globalization phenomena (Turcan et al. 2020); with Bernadette Deak (Deak et al. 2019)—exploring new

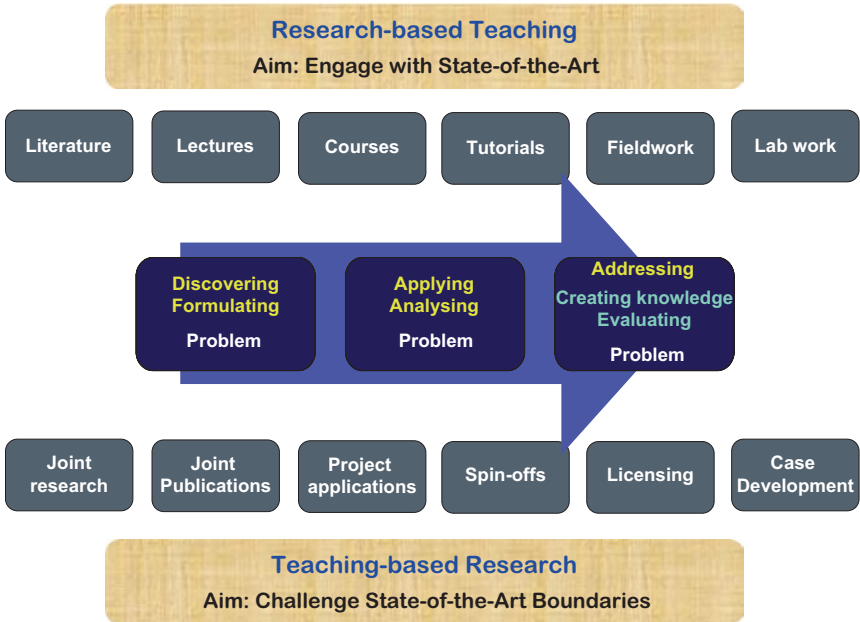


Fig. 16.5 AAU Holistic PBL model

phenomenon—Fintech—and how it affects relationships between established financial institutions and new Fintech firms, start-ups.

As in research-based teaching, all students should have an equal opportunity to engage in teaching-based research. However, the tendency is for staff to ‘cherry-pick’ the best students for this. On the other hand, all students should understand the high expectations and demands of teaching-based research and that the probability of failure is high. Staff, students, and study boards have to be aware of ethical concerns related to the co-production and co-ownership of the new knowledge, especially during research and publication. If all students are to be appropriately prepared and gain the confidence and proactive attitudes necessary to engage in research, the curriculum must develop research competences from the outset—*scientific enquiry, analytical, investigative mindset*—and these need to be formal and assessed learning outcomes.

## Conclusion

We live in liquid times, characterized by dynamic change, high degree of newness, innovative power, and negative social impact, a politics of managed ignorance, fear, and science denial. The liquid world affects free will, moral values, and reconfigures skills and competences. Graduates need to be equipped to navigate this world and to exercise an informed and critical judgement and evaluation. One way in which they can be prepared through PBL is to: become context-free; think and step outside the box, see a big picture and reframe the problem or the question; learn and apply new methodological and/or theoretical lenses; employ new, untried research methods and techniques; rearrange things to find a solution and create new knowledge. This can be achieved by developing a strong interdisciplinary knowledge base; mental elasticity; complex problem solving; critical thinking; creativity; people skills, STEM and SMAC skills.

The HPBL model is designed to achieve these objectives. At its core is the project work, during which students in groups discover, formulate, apply, analyse, and address a problem. Project work is supported by two meta-processes: research-based teaching that aims to engage students with state-of-the-art knowledge and teaching-based research that aims to encourage students to challenge the state-of-the-art boundaries. This holistic approach to teaching and learning will develop and nurture in students what Wright Mills (2000, p. 5) calls ‘sociological imagination’ that is the “*quality of mind that will help [the students] to use information and to develop reason in order to achieve lucid summations of what is going on in the world and of what may be happening within*”.

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# Part V

## Concluding Remarks



# 17

## In My End Is My Beginning

John E. Reilly and Romeo V. Turcan

### Introduction

When we embarked on this project, our object was to highlight the extent to which the tide of populism and its manifestation in a post-truth, fake-news society in all areas of human experience needed to be addressed by the curriculum through which problem-based learning would prepare graduates to cope with the new world order. It has emerged that future research is needed at this intersection not just to extol the virtues of the PBL methodology, but to address the issues to which we drew attention in our opening chapter. In it, we indicated our sense that populism represents a major challenge to learning and teaching in all disciplines

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and indicated that the failure of the academic body to foster the societal engagement of learners and engage actively itself with the political process and debate reinforced the challenge. We are supported in this view by a number of authorities. The Vienna Declaration of European Rectors ‘Universities for Enlightenment’ expressed, in powerful terms, concern at the threats to the democratic character of universities and societies and argued for an active response (see Vignette 1.2). UNESCO echoes this concern in relation to the resurgence of nationalism, which is another manifestation of the populist agenda. There is a danger that the term ‘Populism’ can become a holdall expression. There is no consensus on a definition (see e.g., Devinney and Hartwell 2020) and consequently what forces, movements may be labelled as ‘populist’. In our discussion, we indicate a wide variety of external pressures on universities, which, in broad terms, might be considered to be manifestations of the broader populist themes. For a more in-depth understanding of this phenomenon, the discussion is to be set in a broader, cultural and historical context.

## Discussion

Sir Peter Scott (Chap. 2) recognises that the emergence of populism has the potential to undermine higher education in a number of ways. He explores the understanding of populism and concludes that because it is inherently inchoate it may present less of a risk than some have argued. It is an encouraging conclusion, but it perhaps underestimates the way in which, as Turcan demonstrates (Chap. 16), ignorance can actually be fostered and in effect become a weapon to be exploited by populist politicians. Indeed this is something, which, in a different way, Scott himself recognises, namely that ‘the basis of populism, its core support, can be found among the less-educated but its leaders, typically, are products of elite universities’. Scott recognises that the response to populism requires curriculum reform in ‘an archipelago of learning – in which curriculum and course will be problematized’. As he points out ‘The shift to problem solving in the curriculum has sometimes been restricted to the adoption of new pedagogic techniques rather than the decisive shift away from content acquisition. Instead the renewed emphasis on skills have elided

both problem solving and content acquisition'. This is a challenge to the advocates of PBL and the recurring theme addressed from different perspectives in other chapters. As a former university head, Scott's comments on the need for the democratisation of higher education and the reform of the curriculum and learning and teaching methods and, as he says, the very 'constitution of knowledge', are powerful exhortations. At the same time, he recognises that 'the emergence of populism ... has the potential to undermine higher education in a number of ways', echoing the Vienna Rectors.

A number of the fellow-authors view the threat to the academic world in terms of academic freedom undermined by government and university governance and management. This is particularly true of the chapter by Dholakia et al. (Chap. 3), which juxtaposes 'an authentic, liberal culture' with 'an ascendant populist neo-liberalism', which is 'replacing the function and intellectual diversity of the institution with a monolithic conviction of efficiency and productivity solely indexed to contested economic objectives'. In this context, the authors highlight the growth of a small number of American universities with endowments measured in billions of dollars, which, in their view, far from reinforcing their autonomy seriously undermines their independence and identifies them with and harnesses them to the financial market, and ipso facto to the politics and policies of that market.

While they present a powerful analysis, future research is needed for example to explore whether the neoliberalism encroachments on the university have been facilitated by, what is approaching, mass participation in higher education. 'Mass participation' has had a radical effect on the university world bringing it into the sphere of popular and political debate. The dramatic nature of the change can be illustrated by a statistic. For example, in the UK in the mid-twentieth century (1950s), only 5–6% of the age cohort (18–24) participated in higher education; in 2020 the figure is approaching 45%. Future research is needed to explore ways in which neoliberalism is affecting the curriculum and what, in the contemporary world, should be the basis for curriculum content and development. From the Dholakia et al. perspective, the priority is one of structures, management and governance. These are powerful elements determining the nature of the university, but unless curriculum content

and learning, and teaching methods are the focus of critical discussion and analysis, reform of structures (management and governance) will not address the multiple areas of concern outlined in the introductory chapter.

Populism is considered from a different perspective by Rachlin (Chap. 5) in his review of recent history, which he, too, regards as a threat to the liberal order. He asserts that ‘Demagogues know how to gain pay-back by playing on emotions and how fear can unite people across political divisions. Today’s populists have mastered this art not only by exaggerating facts or presenting alternative facts, but by spreading lies and falsehoods’. He contends that the tide of populism has been stemmed in countries such as Denmark and that the elections for the European Parliament in June 2019 reinforce that view. However, ongoing monitoring and analysis is needed to test the thesis that the populist tide has turned, as recent events suggest the opposite: the outcome of the UK General Election in December 2019 won by repetition of the slogan ‘Get Brexit Done’; the surge in populist support for Sinn Fein in the February 2020 election in Ireland; recent events in India fostered by the BJP and Prime Minister Modi; ongoing populism in Poland and Hungary and the current likelihood that President Trump will be re-elected at the end of 2020.

As Rachlin asserts ‘It has taken generations of liberal democracies to develop and consolidate the basic values on which Western societies are based: the triad of power; the rule of law; freedom of speech; freedom of mind and respect for the individual. It is difficult for many to understand that the political situation in our part of the world has been able to take such a steep and dramatic turn away from the basic values’. He concludes ‘It is sad enough but the blindness of the age cannot be remedied with algorithms and artificial intelligence. This “blindness” is the challenge which higher education must address’. Here, too, we see an echo of the Vienna Rectors, UNESCO and other bodies. Advocates of PBL might respond that the methods of problem-based learning provide a basis for counteracting the Rachlin ‘blindness of the age’ and opening eyes, but although PBL emphasises ‘real world’ problems these tend to be limited in scope. Here too more research is urgently required because it is not evident that the PBL methodology is inherently concerned with the nature of the contemporary world, which the graduates will enter or that



the curriculum explicitly deals with the contemporary populist issues identified in the Vienna Declaration.

One of these issues is discussed in the paper by late Rt Hon Bruce George OBE, former UK MP (Chap. 6). The academic world, in essence, thinks of the world of knowledge as borderless but as George indicates, in a paper written some years ago, borders have a potent, political and emotional resonance. This can be aptly illustrated from the United States and the proposed wall between the United States and Mexico and the UK where the frontiers between the UK and the EU and in Ireland have become key populist elements propelling the most significant constitutional and economic decision (Brexit) since the Second World War. The paper by George might be considered of less relevance to the university world as it focuses on controlling the flow of migrants, but it should be understood that all the apparatus and the politics of national borders has a direct impact on intellectual mobility. There are well-documented cases of senior and distinguished academics either failing to be granted a visa to work in the UK Higher Education sector or deciding that the process is too intrusive to be worth pursuing. At the time of writing, there seems to be a real possibility that UK students will no longer be able to participate in the Erasmus programme. For higher education alone, this means excluding c.17000 outgoing and c.32,000 incoming students and c.3500 outgoing and 5000 incoming staff. Exclusion from or limitations on participation in Erasmus will deprive individuals of a formative experience and reduce the international dimension in host institutions for peer groups who interact academically and socially with incoming cohorts. In terms of the numbers involved and their impact on the economy, the Erasmus Impact Study published (2014) demonstrates that the mobility brings considerable economic, social and political benefits for the individual and in this case the UK. However, it has not become a populist *cause* whereas in comparison the fishing industry, which employs in total c.24,000 c.12000 at sea and c.12000 in the processing industry and contributes only c.0.12% to the UK economy has become a make or break element in the withdrawal negotiations between the EU and the UK. It has become an emotive populist issue where evidence is irrelevant and it too relates to the emotive border delineation question.

Borders have a significant impact on scientific collaboration. Already the UK is excluded from the Galileo Project and the extent to which it will be able to participate in the next European Union Framework programme Horizon Europe is uncertain. National frontiers may inhibit the development of some subjects and research to suit populist nationalist agendas with a focus on what are determined to be national priorities rather than the pursuit of knowledge as a universal goal. This phenomenon is most starkly perceived in subjects such as history, which has been conceived as a basis for establishing a sense of national identity and through this contributes to the growth of nationalism. Popular presentations of history can be used to promulgate myths about the past. This applies not only at a national level but also to wider regional interpretations. Recent scholars such as Frankopan (2018) endeavour to challenge the Euro-centric understanding of the past, but formidable as his scholarship is, it seems unlikely that it will dislodge populist views and the populist requirement from governments that the curriculum should underscore a sense of national identity even if this is at the expense of a more open, evidence-based understanding and the real danger is that a historical perspective is increasingly absent from the curriculum in all subjects.

The recognition that national identity and frontiers permeate and can distort the curriculum in most subjects is one of the forces behind the movement to 'decolonise' the curriculum. Because the topic, in news coverage, has often been reduced to a symbolic and tokenistic level associated with the removal and destruction of statues and place names associated with colonial exploitation, it has distracted attention from the core objective. The phenomenon—the call to decolonise—is one which should be the subject of further research, because it is, on the one hand, an example of a populist thematic, and on the other hand, it raises serious questions about the essence of what constitutes 'colonial' curriculum, which embeds cultural and nationalistic preconceptions and interpretations. Lest it should be thought that this applies only to the Humanities and Social Sciences, it should be noted that it has equal force in the STEM subjects where values, philosophy and tradition continue to structure learning and teaching. Gishen and Lokugamage (2018) present a strong case for diversifying and decolonising the medical curriculum in

the UK and illustrate that the topic is not one restricted to former colonies, but confronts academics in all countries.

Chapter 12, by Dreher and Haseloff, on Artificial Intelligence (AI) touches on the ways in which AI is having a profound impact on the nature of work and more sophisticated methods of production, which have implications for the role of the skilled worker who requires high specialist skills and, because of the complexity of the processes a new approach to problem formulation and solution. This presents higher education curriculum planning and development with four challenges: the need for constant reformulation and innovation; the need for a more intense application of high-level problem-solving competences; the need for high-level staff development in problem-based learning and problem formulation and the need for a more granular, relevant approach to the assessment of the PBL learning outcomes.

The authors argue that the key driver for the implementation of AI is economic when applied to productive processes, as illustrated in the first of their two vignettes. However, AI is being applied, increasingly, in more diverse fields such as Medicine, in which the main driver is not always directly economic. Moreover, the application of AI is not always benign. Hence, graduates in all fields require new insights and critical analytical skills, not simply, as the Dreher and Haseloff chapter suggests, to be able to manipulate processes, but to appreciate how and when AI is being used in ways which are antipathetical to the public good. This provides another illustration, not only of the imperative to respond at pace to the world outside higher education, but for an interdisciplinary curriculum which will alert and prepare graduates for their future working life.

The chapter is challenging relating as it does to vocational higher education. It leaves open a range of issues in the realm of AI, some of which are touched on in our introductory chapter, which indicates opportunities as well as threats to traditional higher education paradigms of learning and teaching. Perhaps the key lesson is that effective engagement with AI requires a more interdisciplinary approach. Here, too, we should be reminded of what Zuboff (2019) states in relation to Surveillance Capitalism: that it uses 'algorithms and sensors, machine intelligence and platforms' to undermine 'individual self-determination, autonomy and decision rights'.

A number of chapters discuss different aspects of the relationship and interaction between universities and business in the preparation of graduates for the workplace. Gregersen (Chap. 8) explores ways in which the management structure and academic organisation have an impact on learning and teaching. A key concern is that disciplinary silos, which are constructed and maintained for management purposes, can seriously impede interdisciplinary curriculum development and the effective formation of graduates. In addition to the rationale outlined by Gregersen for these 'silos', it may be noted that senior academics may support disciplinary silos because these have helped to establish their reputation and career so that they become strong supporters of the status quo. Gregersen explores the extent to which resource allocation models, which are based on teaching and research and performance criteria make it difficult to prioritise and support external and global collaboration. She expresses concern at the view that is gaining currency that the process of management of universities is no different from that of a large business or factory.

Building on Gregersen's propositions, future research should explore the extent to which what lies behind the concerns, which she documents is a strong populist agenda that the university is not for knowledge transmission and creation, critical learning, teaching and research, but rather to be regarded as an instrument for the (uncritical) implementation of the current political, social and economic agenda. The second populist political imperative is that the market is the engine which the university must fuel and to do so adopt market structures and attitudes. This risks losing sight of the objectives, or rather the urgent need for graduates with a critical, analytical, flexible mind-set willing to challenge received wisdom and policy, prepared to be innovative and creative, who are prepared for and committed to lifelong learning for which PBL is ideally suited if it has the resource and the structure to do so.

The nature of university management structures and attitudes is considered by Fast and Clark (Chap. 7). They see the implementation of new public management supported by populist views of the nature of a university, as the fundamental reason for a divorce between the senior management and the process of education and research. Their chapter raises questions about the actual impact of the new management structures on curriculum content, which need further research. They explore the extent

to which the philosophy of science can counteract what they perceive as the harmful approach to learning imposed by the new management. As they express it, 'the organisational discourse went from an idea of the university as a knowledge development community where the focus was on studying, discussion, debating, disagreement and where argument, logic and critique were the most important towards the production factory', where competition is the driving force 'not only between universities but also between departments, research groups and people'.

Another perspective on university business relationships is explored by Sorensen (Chap. 9), who voices the external imperatives for more active relationships between the university and enterprise/business and the forms which this can take. He illustrates that while the objective is to achieve understanding and cooperation, the relationship has within it the potential for conflict and misunderstanding. The case study presented in the annex reveals the range and complexity of relations with an industry, which does not follow what might be regarded as a pattern of classic relations with its partner university.

The rhetoric extolling the necessity and the benefits of university–enterprise collaboration has become universal and is portrayed to be axiomatically a good thing. However, as Sorensen's chapter reveals, the assertions obscure the complexities, potential conflicts of interest and the profound implications of the interaction. Moreover, there is a fundamental issue which universities are nervous to explore but which ought to be the subject of in-depth research. Partnerships assume the quality of relationships and shared if not equal benefits and the often quoted 'knowledge triangle' almost has a theological resonance 'creating the conditions for increased relevance and utilisation of universities' activities', which is self-evidently beneficial and good.

However, if universities are genuine research-based institutions, they should be at the frontier of knowledge formation looking to tomorrow rather than today. It would be absurd to suggest that this is not also the agenda for the most advanced enterprises, which will, in the case of the largest, have strong research sectors but there should be a strong health warning spelt out in capitals. The interests of the two parties are not synonymous. The enterprise objective is not altruistic in the sense that it is prepared to pursue fundamental research and follow where it leads. It has

always a strong economic imperative dictating the structure, shape and direction of the research. At times, there may be a congruence of interest between industry and the university in their research objectives but there are also occasions when interests and objectives diverge. Insofar as universities become harnessed to the interests and objects of industry in their research, then their commitment and ability to undertake fundamental research may be undermined.

It may be heresy to suggest that a similar concern applies to the 'deep wisdom' that work placements and internships are an unalloyed benefit. Two chapters explore internships from different perspectives. Two graduates—Kriegsbaum and Deak—discuss their experience (Chap. 10) and Christensen (Chap. 11) explores different models of internships, favouring a University Students' Industry Collaboration (USIC) model in which students are not physically located in the firm but visit it for meetings. Both chapters indicate reservations about internships. Christensen criticises what he considers to be classical modes of internships (work placements) advocating the USIC model. Overall, the students commend their experience but note that in specific fields their knowledge acquisition and the knowledge direction provided by staff were deficient. This reservation, while limited, may indicate a more general challenge in PBL and that is the extent to which knowledge acquisition is not always optimally acquired through self-directed learning. Both chapters are advocates for internships. However, it could be argued that the emphasis on the primacy of practical experience is an example of a populist world theme, which undervalues academic research led knowledge as a basis for genuine progress. The intellectual is, in the utilitarian world, a second-class citizen. The Pure Mathematician has an uphill battle to justify the subject on the basis of 'intellectual challenge' and the 'aesthetic beauty' of abstract reasoning. Equally problematic for the contemporary commentators is the idea that students should debate Plato's concept of beauty as an abstraction. Utility is the new deity. The increasing imperative that internships/work placements are virtually an essential prerequisite for future employment, could demonstrate the relative weakness, if not the failure, of the academic world and the erosion of academic values, giving rise to the effective counter-universities funded by the training in Google and Amazon, to name but two.

The question must be raised: has the pendulum, governed by the populist trope, swung too far from the academic to the practical? To parody *Animal Farm*, the cry seems to be ‘Industrial experience good—academic knowledge and understanding bad’. This is evidently an absurd parody. Nevertheless, parodies do call for an exploration. If working life for most graduates is to continue into their 70s or beyond, spending a relatively short time acquiring intellectual capital may not be wasted. Experience can be garnered throughout a working life. To expect universities to produce ‘oven-ready’ products (their graduates) may be to misunderstand fundamentally the nature of knowledge, understanding and learning.

The range of knowledge in all subject areas could be said to be expanding almost exponentially. If interdisciplinary or multidisciplinary learning is also becoming essential, then perhaps experience might be postponed and be accepted by industry as part of their responsibility. In other words, a new type of collaboration may be necessary, one in which learning is not perceived simply in experiential terms but as the acquisition of a knowledge platform and an intellectual training on which continued learning and experience may be firmly built. It may be that some PBL should involve learners in grappling with concepts and abstraction, rather than the everyday (so-called real-life) problem, to develop (stretch) their horizons and logical powers of reasoning and analysis.

As Sir Peter Scott (Chap. 2) indicates, ‘populism’ presents mass higher education with serious challenges, one of which is socio-economic: ‘The extent to which these systems are fit for purpose in an inclusive and democratic society’. As he indicates, ‘In most developed countries applicants from the most socially privileged groups are between three and four times more likely to be admitted than applicants from the least socially privileged groups’. The failure to democratise, he suggests, is an element in the rise of populism and bias against ‘so-called expert or elite knowledge’ and ‘a search for uncomplicated truth’.

Daskou and Tzokas (Chap. 13) explore social inclusion. They recognise that social inclusion has become, in their words, ‘imperative for a stable society’. Government and inter-government statements on the topic perhaps neglect to indicate the scale of the challenge and the growing inequalities, which have a profound impact on all aspects of society. Some writers on populism argue that the power acquired by populist

politicians has its roots in inequality and social exclusion. A large excluded segment of society may be vulnerable to extremist views, right and left, which appear to recognise their situation and identify other groups, countries or organisations as their enemies; offer slogan-based solutions to complex challenges and gain power as a result. Social exclusion is thus a central feature of populism and the role of higher education is not only to help to redress the severe inequalities in society and enable the individual to enter the ‘inclusion’ zone, but to do so in a way which means that the individual is no longer susceptible to the false clarion calls of the populist leaders but recognises that complex problems require multifaceted and often difficult and unpopular responses.

Although the objective of social inclusion is high on government and university formal agendas in practice, notwithstanding the case studies in the Daskou and Tzokas chapter, the wider impact of engagement with social inclusion in all subject fields is difficult to identify and should be the subject of in-depth research. As with decolonisation of the curriculum (which some see in terms of the inclusion of black and minority ethnic groups), it is not simply a matter of helping the individual, but ensuring that the essence of curricula is effectively inclusive and that all graduates understand the imperative for social cohesion. Indeed, it could be argued that the case study of the two graduates, commenting on their experience of problem-based learning, provides an illustration of the challenge inherent in the dynamics of inclusion more generally—the unwilling learner; the free rider is identified. It is not evident that the challenge is resolved.

Success and entrepreneurship are two words which permeate discussion of the outcomes of university education. In the UK, the level of salary on graduation is now one of the indicators in the Teaching Excellence and Student Outcomes Framework (TEF) scores. Moller et al. (Chap. 14) explore aspects of success in entrepreneurship, consider on the basis of the survey study which they have undertaken that success is determined by what they refer to as ‘meaning’, which might be rephrased as personal motivation and self-awareness. While these are interesting perceptions, it is not clear how they may be generalised in terms of the curriculum content and development for potential entrepreneurs. Indeed,



this is a further area for more detailed research, multi aspects of which are examined by Reilly (2018).

Baldock (Chap. 4) injects a new concept of change in writing about UK Higher Education and provides a counter to the argument that change is dictated by informed policy or ideology, maintaining that the driver of change has been almost accidental 'incrementalism'. He concludes that 'the main driver of these changes have been a shift from a system of capped student numbers with funding allocated by government and civil servants, to a market and price driven system in which funding follows student choice and universities.... This change took place slowly and incrementally over fifty years. It was not driven by neo-liberal or populist values, but by governments seeking to control public expenditure and university leaders seeking extra income.' While he writes persuasively, his conclusion might be seen to partially undermine his thesis. 'Competition, marketization, price driven' seem remarkably neo-liberal and match the political philosophy of the Conservative party in power since 2010 (it should be acknowledged that the Labour government of Mr. Blair initiated the first significant increase in the student fee level). While students may not see themselves as consumers, the vocabulary has a populist tone and denotes a populist attitude to the objectives of higher education, which is reinforced by the measures of successful outcomes that include salary on employment. Baldock uses the 'success' data (indicators) on quality and performance to assert that UK universities 'are doing very well' but the indicators are 'market' and 'consumer' type and reinforce our concern that even if it is in part event driven the result has been, as Baldock recognises, to undervalue qualities of mind or as he expresses 'intellectual values'.

Turcan (Chap. 16) reiterates concerns expressed in the introductory chapter, suggesting that we 'often turn a blind eye on inter-related, mutually reinforcing events or liquid states in all levels of daily life'. He argues that 'newness' brings with it uncertainty and ignorance, and alarmingly that 'ignorance can be negotiated through the exercise of power'. In other words, people can be kept in ignorance and, as he points out, Orwell predicted such a world.

The concept of 'power negotiated ignorance' is perhaps the most disturbing of all those explored in the book. It is evident in that ignorance is

the basis on which orchestrators of the populist movements base their success. It seems otiose to state that ignorance is manifestly dangerous and harmful in all spheres, whether in medicine, health, vaccination, quack cures, housing, building with flammable materials, climate change, closed cognitive circles. To say it, is to assume that it is self-evidently clear that ignorance is disastrous but it is pervasive and actively encouraged. Popular culture is inimical to serious analytical enquiry; indeed, it is designed to block this out in much the same way as the Romans recognised that bread and circuses were a means to keep a potentially troublesome population occupied. Notwithstanding overwhelming evidence from the past and the present, the curriculum does not appear to be addressing these issues. It is not sufficient to argue that the methodology of problem-based learning is an antidote to populism, post-truth, fake news, denialism and the multitude of other isms. Potentially, it is a powerful antidote, but if it is not actually engaging learner and teacher in the realities of the issues of the day, it will simply produce graduates who are 'oven-ready' for the labour market.

Many of the authors identify an interdisciplinary formation (knowledge and understanding) and approach to problem solving as a prerequisite for a contemporary graduate. As argued by Gregersen, whose exploration of 'broad' interdisciplinarity is circumscribed within a social science perspective, disciplinary silos are an obstacle to effective problem-based learning. Concepts of the interdisciplinary vary from narrow to broad. Future research is needed to explore the extent to which the humanities can contribute a deeper understanding and insight, history, literature, art, philosophy, all have considerable potential for enlarging intellectual horizons and actually providing deeply understood experience of the human condition and insights into contemporary issues such as integration, peace negotiation, scientific disputes. STEM subjects are now placed in a sort of reverence silo, whereas it could be argued, that all graduates should have an understanding of developments in science, technology, engineering and maths, and that STEM graduates for their part need insights provided by the humanities and the social sciences. Of course, it is easy to say this but, in practice, to achieve these interdisciplinary goals means challenging discipline silos and academic career paths, institutional structures, management and resource allocation

models. The prospect of this type of change potentially undermines the confidence of the teacher who is inevitably a subject specialist. True interdisciplinarity requires a radical re-appraisal of the way in which curriculum teams are composed and, in the case of problem-based learning, the way in which problems are constructed and tackled.

Although it is difficult to see it in a populist perspective, an example of an interdisciplinary topic, which has soared up the agenda, is the implementation of the UN Sustainability Development Goals. Jorgensen and Boje (Chap. 15) tackle this topic. They do so at a conceptual level. Although the 17 goals have a conceptual dimension, they are designed to address real-life concerns in the world. Insofar as they have not entered the populist rhetoric, they are oddly out of place in this book and yet because they relate to key global issues, they are highly relevant to all the themes discussed. They require interdisciplinary approaches and are eminently appropriate to the problem-based learning methods because they relate to real-life problems. Indeed, the UN sustainability development goals offer a comprehensive interdisciplinary curriculum agenda for a new world order requiring students to learn how to be responsible and answerable, an ethical purpose often overlooked by PBL apologists. It is an agenda which will require considerable work to achieve their integration in cross-faculty curricula.

## Populism and Politics of PBL: A Way Forward

In its rawest form, history offers manifest examples of the way in which opinion can be manipulated. On Palm Sunday, the crowds acclaim 'Alleluia', the following Friday the cry is 'Crucify'. Shakespeare understood this perhaps most effectively in *Julius Caesar*—while Brutus is speaking the crowd proclaims 'Live Brutus, live, live' but, within a short space under the influence of Mark Anthony, the tune has changed to 'Burn the house of Brutus'. Perhaps Shakespeare also has advice, which might aptly apply to the academic community in the words of Cassius: "Men at some time are masters of their fates. The fault, dear Brutus, is not in our stars but in ourselves (that we are underlings)". We do not need to rely on literary or religious insights for examples of the way in

which populations may be manipulated. Recent history provides ample illustrations, but we do not seem to have profited from the lessons.

As we maintained earlier, our aim was to stimulate research, discussion, debate on the extent to which populism and its manifestation in all areas of human experience needs to be addressed by the curriculum utilising problem-based learning to prepare graduates to cope with the new world order. We hope that the range of contributors and their insights have gone some way towards this goal. Perhaps inevitably they have revealed, sometimes explicitly and sometimes incidentally, that realising the objective is easier said than done. We feel confident that the virtues of PBL are amply demonstrated, but utilising the strengths to develop an effective curriculum engaged with addressing populist agendas needs further work. The tendency to concentrate on the innate value of PBL may be interpreted as evidence for the view that PBL engenders an attitude of mind, which is necessary to cope with the new world. This is a legitimate position. On the other hand, the focus on the values of PBL itself may reveal a reluctance to engage with the issues, which we have identified, including those highlighted in the first part of Turcan's chapter, challenges which graduates today and tomorrow will encounter. It emerges that the extent to which curriculum content might be shaped and even dominated to address powerful non-academic and non-accountable forces is of less relevance than the methodology embodied in problem-based learning. This leads to a perception that the very methodology of problem-based learning prepares graduates to address societal challenges.

Unfortunately, there is little evidence to support this view. Indeed, it is difficult to escape the conclusion that the majority of today's and tomorrow's graduates may be as vulnerable to populist rhetoric as non-graduates, precisely because they are not engaged in a process of consciousness-raising through their curriculum.

If this is a contentious assertion, it nevertheless points to an area for further research, namely the attitude and engagement of academic staff in all disciplines to the wider political, economic and social context in which they are operating and the extent to which they are engaged themselves and/or are engaging or failing to engage their students in this wider

agenda. The questions are relevant at a time when paradoxically governments and society seem to expect universities to provide solutions to the myriad of contemporary challenges and yet shelter behind empty slogans to persuade us all that answers are simple and can be delivered. Through all the current national and global turmoil, it seems that the individual academic, to use the words of one of the authors, 'seeks to remain in the cocoon of their subject and their career'. This reinforces our view that the Vienna Rectors (Vienna Declaration) will have great difficulty in persuading colleagues in all disciplines of the need to combat manifestations of populism and 'strive to prevent and work against': 'post-truth explanations – increasing inequalities, nationalism, racism, anti-Semitism, intolerance, polarisation, and radicalisation as well as pseudo-science and pseudo-facts and other threats to democratic and scientific culture'.

Advocates of the PBL methodology would argue that the very virtues which are nurtured through problem-based learning are those which will help combat the populist 'isms'. However, unless these ('isms') are explicitly addressed in the curriculum and openly discussed and debated, the suspicion remains that, in general, their objective is simply to prepare graduates to be effective in their future workplace, which responds to a strong populist theme in relation to the purpose and objective of university education. In that context, perhaps, it is appropriate to remind the academic community of the argument by Zuboff (2019), that Surveillance Capitalism relies on algorithms and censors, machine intelligence and platforms, but it is not the same as any of these, but depends upon undermining individual self-determination, autonomy and decision rights for the sake of an unobstructed flow of behavioural data to feed markets that are about us but not for us. This is a challenge not simply for social scientists and Business Schools, but for all fields of knowledge.

Populist politicians find universities an easy target. Depending on their location on the political spectrum they label the academic community as right wing or left wing but our suspicion is the reverse of this that the academy exception has, for the most part, effectively opted out of active engagement with the current economic, social and political environment. Since this is of fundamental importance to the direction of

curriculum and the outlook of graduates, this view requires further discussion, debate and research to establish its validity. It may be attributed to the new public management profile, which focuses on the individual academic and their delivery of what is required in terms of performance indicators. It may stem from the career and promotion profile, which is not supportive of political engagement. Finally, it may reflect an attitude, which may be encapsulated by the Chorus of the women of Canterbury in *Murder in the Cathedral* (Eliot 1943, 2001), who wish simply to avoid the terror of engagement: *King rules or barons rule; We have suffered various oppression, But mostly we are left to our own devices, And we are content if we are left alone.*

The problem about this attitude, which needs further investigation to discover its truth or not, is that ultimately opting out leaves the terrain wide open for a populist onslaught in which ignorance becomes the weapon of control. With these reflections, we are keen to initiate debate and our strongly held view is that the full engagement of the academic world, learners and teachers, is the only way to ensure a better, inclusive, open, fairer and sustainable society. Committed engagement will mean that the qualities of mind developed through intellectually challenging problem-based learning will be applied to the role of responsible citizenship in the workplace. “In my end is my beginning” (Eliot 1943, 2001).

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