Higher Education Dynamics 55

Lars Engwall *Editor*

Missions of Universities

Past, Present, Future

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Volume 55

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Preface

This volume is based on a conference on the topic “Missions of Universities over Time: Global Actors, National Champions, or Local Power Houses?” held at the premises of the Royal Swedish Academy of Letters, History and Antiquities in Stockholm on November 27–28, 2017, with the economic support of the Academy and the Bank of Sweden Tercentenary Foundation. The conference was part of a conference series arranged since the mid-1990s by the HERCulES group within Academia Europaea. We are grateful to Donald MacQueen for editorial assistance funded by the Royal Society of Arts and Sciences of Uppsala.

Stockholm, Sweden
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Lars Engwall

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Chapter 1
The Governance and Missions of Universities

Lars Engwall

Introduction

A Successful Organizational Form

Universities constitute significant organizations in modern society. In a world characterized as the Knowledge Society (Stehr 1994), they are expected, with the ambition of increasing the national prosperity, to raise the competence of individuals as well as to provide innovations. As a result, particularly in the period after Second World War, the global number of universities has increased considerably at the same time as those founded earlier have grown in size. Obviously, there are great variations among the universities we see today in terms of scale, scope and age. Some are very large, some have broad representation of disciplines and some are very old, while others represent the other extreme in terms of the variables mentioned. These circumstances should be kept in mind as we look at figures on the number of universities in the world as those provided by the Ranking Web of Universities (2017), which reported that there were then 26,368 universities worldwide. Of these 4,004 were to be found in India, 3,281 in the United States, 2,310 in China, 1,507 in Brazil, 1,306 in Russia, 985 in Japan, 931 in Mexico, 605 in Iran, 562 in France, while a total of 4,700 universities were recorded in 14 countries with 200–500 universities and 6,177 universities in 186 countries with fewer than 200 universities.

These figures, even if they are reduced because of stricter definitions of a university, demonstrate that the organizational form of the university has been very successful and has spread widely. They also underline that the popular top rankings such as the Shanghai Ranking Consultancy (publisher of the Academic Ranking of World Universities, ARWU), U.S. News Best Global Universities, Global University

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Ranking, Times Higher Education World University Rankings, QS World University Rankings, etc. only present the tip of an iceberg. Even if we reduce the figure above by 50%, the top 100 universities represent less than a per cent of the total population!

Looking more closely at these ranking lists, we find a strong US domination. In the 2018 ARWU ranking among the top 20 universities, only three are located outside the United States: University of Cambridge (rank 3). University of Oxford (rank 7) and Swiss Federal Institute of Technology (rank 19). The US domination is also evident in the list of the top 500 universities: 28% of them are located in the United States, followed next by China with 10%, the United Kingdom with 8% and Germany with 7%.[1] However, it is important to note that all populations of universities, like the global one, are highly skewed: thus among the thousands of US institutions of higher education in 2007, only about 600 (14%) offered Master's programs and around 260 (6%) were research universities, while 87 (2%) accounted for 60% of all doctoral degrees in 2006 (Cole 2010, p. 6).

The Development of the Population

Behind the present-day population of universities, we can identify a long historical process, starting in Europe almost a thousand years ago with the foundation of the University of Bologna in 1088.[2] It was followed by foundations of universities in Oxford and Paris in the twelfth century and a number of later on prestigious universities founded in the thirteenth century in Cambridge (1209), Salamanca (1218), Padua (1222), and Siena (1246), and in the fourteenth century by those in Prague (1348), Kraków (1364), Vienna (1365) and Heidelberg (1386) (Fahlstedt 1920). During the following centuries, the idea of founding universities spread rapidly on the European Continent, boosting the number of European universities to 140 by the mid-eighteenth century (Compilation from a map in Darby and Fullard 1978, p. 69). At the same time, new universities were also founded on the other side of the Atlantic. Among them were the National University of San Marcos (1551) in Peru, the University of Saint Thomas Aquinas (1580) in Colombia, the University of Cordoba (1613) in Argentina, as well as Harvard (1636), Yale (1701), Princeton (1746) and Columbia (1754) in the United States. In the latter country, a large number of new universities followed in the nineteenth century. Some of them private, founded by rich philanthropists such as Cornell (1865), Johns Hopkins (1876) and Stanford (1885), others public, created through territorial or state initiatives. Foundations in Michigan (1817) and Virginia (1819) were followed by a number of

[1] It can be added that a calculation in which the number of top-500 universities is related to the population of the countries, Sweden, Switzerland and Australia come out at the top, with the United States only in the eighth place.

[2] It has to be mentioned that long before the foundation of the University of Bologna, during the second and fourth centuries, there were forerunners through institutions in cities like Athens, Constantinople and Rome.

other state initiatives, often encouraged by the Morrill-Land-Grants Acts of 1862 and 1890 (Gates 1964).

In the United Kingdom Oxford and Cambridge were followed by four Scottish universities: St. Andrews (1410), Glasgow (1451), Aberdeen (1495) and Edinburgh (1583), as well as the Irish Trinity College Dublin (1592). After them a number of local civic universities, often labelled 'redbrick universities' with reference to their architecture, were created at the end of the nineteenth century and the beginning of the twentieth century. In the 1960s, after a recommendation of the Robbins Report (Higher Education 1963), still another group of British universities were founded, which, again with reference to their architecture were labelled 'plateglass universities' (Beloff 1968). Some 150 years earlier, in 1810, the University of Berlin had started on the initiative of Wilhelm von Humboldt. Eventually it became a role model for modern universities with its emphasis on combining teaching and research (Östling 2016, 2018 and Chap. 5 in this volume).

The above implies that universities have multiplied in number many times over almost ten centuries, spread globally, particularly after the Second World War, and that the populations of universities, globally as well as nationally, are highly differentiated with a limited number of elite institutions and a large number of followers. These circumstances make it appropriate to look more closely at the missions of universities over time and in space, which is the focus of the present volume. However, in order to put these into perspective it is appropriate first to discuss the governance of universities.

The External Governance of Universities

A General Framework

In terms of external governance in societies, the political scientist Charles Lindblom (1977) has made a distinction between politics and markets, that is, between a governance by elected politicians on behalf of the electorate (politics) and by various actors based on economic considerations in the market (markets). These two types of actors can be labelled *Regulators* and *Market Actors*, respectively. However, in modern societies various *Scrutinizers* – that is auditing organizations, NGOs and the media – play an increasingly significant role in the governance of *Institutions* (see Figure 1.1 from Engwall 2018a).

The distinction between Regulators, Market Actors and Scrutinizers has close connections to the reasoning of DiMaggio and Powell (1983) regarding three isomorphic forces: the coercive, the mimetic and the normative. Regulators (national and increasingly transnational) provide the rules for operations of Institutions and punish them if rules are not followed, while various Market Actors not only demand and supply goods and services as well as competition, but also offer benchmarks for Institutions regarding key parameters such as prices and quality standards. Although

these benchmarks, in contrast to regulation, do not have to be followed, deviance may lead to market verdict, in the worst case, economic failure. Scrutinizers (NGOs, media, auditors and professions), finally, in addition to regulation and market adaptation, provide norms of proper behaviour for Institutions and may punish the breaking of norms through naming and shaming.

Universities, Regulators, Market Actors and Scrutinizers

For universities the model in Fig. 1.1 fits nicely with the reasoning of Burton Clark, who in comparing different university systems made a distinction he labelled 'The Triangle of Coordination' between those governed by state authority (Regulators in Fig. 1.1), academic oligarchy (Scrutinizers in Fig. 1.1), and the market (Market Actors in Fig. 1.1) (Clark 1983, p.143). He found the US system to be primarily market governed, while the influence of the market was considered less in other countries. However, since then the non-US systems have tended in various degrees to move towards market solutions. Countries with strong state support have tended to delegate more to the market at the same time as they have taken advantage of Scrutinizers through various kinds of evaluations, while professions inside Institutions have lost in influence in countries where they previously had power. In other words, with reference to Fig. 1.1, Market Actors and Scrutinizers have come

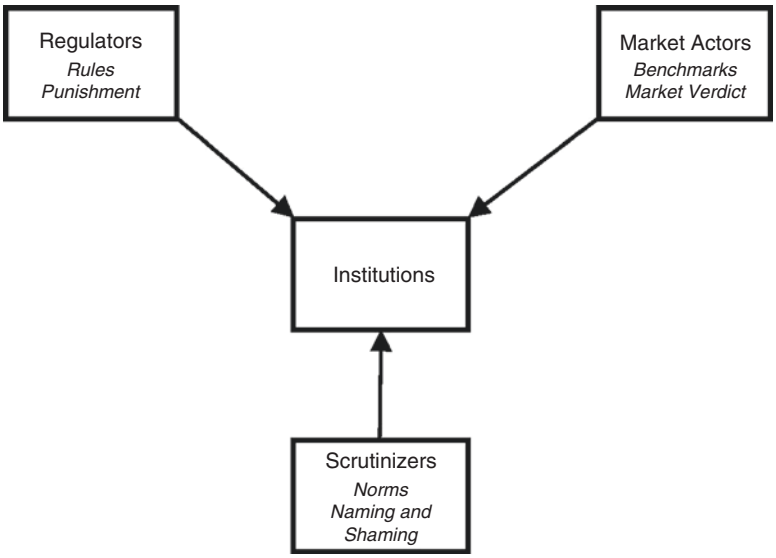

Fig. 1.1 Institutions, regulators, market actors and scrutinizers

to play more significant roles for universities all over the world. According to economists, like Aghion et al. (2010), this development is considered to have had positive effects on the productivity of universities.[3]

Behind the above developments, a few factors can be enumerated. First, the twentieth and the present century have, as already mentioned above, implied a considerable expansion of the university sector. To take Sweden as an example: in 1900 the country had two universities at Uppsala (from 1477) and Lund (from 1666), two local university colleges in Stockholm (from 1878) and Gothenburg (from 1891) as well as a few professional schools such as Karolinska Institutet from 1810. In 2019, it has 17 universities, 13 university colleges, and 18 other institutions of post-secondary education (*Universitetskanslersämbetet* 2019). This development has occurred through the upgrading of university colleges, the foundation of new institutions and the academization of professional training institutes. At the same time, in the spirit of Wilhelm von Humboldt, the research community has grown more populous. And, these changes have taken place not only in Sweden but all over the globe, manifested in a growth in student populations, in publications and in patents (Olesen and von Ins 2010).

However, alongside the expansion of the system, two other significant changes have occurred: the contextualisation of research and the emergence of the audit society. In terms of the first of these two, the argument arose in the 1990s (Gibbons et al. 1994; Nowotny et al. 2001), that modern research was developing into a new mode, from one comprising isolated researchers (Mode 1) to one involving researchers in interaction with society (Mode 2).[4] A related argument was that of the Triple Helix, that is, that research should be pursued in close collaboration between universities, industry and governments (Etzkowitz and Leydesdorff 1997). For some time, after the fall of the Soviet Union and the Berlin Wall, many governments even considered investments in higher education and research as their new defence policy. Obviously, in terms of Fig. 1.1 this change has implied closer relationships to Market Actors.

The third fundamental change in modern society is the development into what Michael Power (1997) has labelled 'the Audit Society', that is, that more and more activities are increasingly monitored by various kinds of record keeping and scrutiny. In terms of Fig. 1.1 this means an increasing influence for Scrutinizers. This is not least the case within the university population, where academic citation figures are followed on line by many, and different types of evaluations are continuously undertaken. These evaluations include accreditation exercises set up in order to communicate exclusivity for those living up to certain standards (Hedmo 2004). On top of that, rankings that sort institutions according to a combination of parameters (Wedlin 2006; Espeland and Sauder 2007) constitute another part of external governance of universities.

[3] For other recent contributions taking an economics perspective, see Clotfelter (2010), Barr (2012), Ehrenberg (2012), and Massy (2016).

[4] For an examination of the Mode 2 arguments, see e.g. Hessels and van Lente (2008).

To conclude: in present times, there is a tendency of Regulators to govern less with rules and instead to a high extent to delegate the governance of universities to Market Actors and Scrutinizers. In this way, benchmarks and norms have become increasingly significant for universities. This in turn has made them eager to formulate and communicate mission statements for both internal and external use.

Missions of Universities

Two Fundamental Tasks of Universities

Missions of universities are closely related to their two fundamental tasks: the distribution of established knowledge (teaching students and the dissemination to the wider society) and the creation of new knowledge (research). The balance between these two tasks constitutes a significant issue in terms of university missions. Without teaching, the institution would turn into just a research institute, and without research, it would be merely a teaching institution. However, in view of the historical perspective of this volume, it should be pointed out that the early universities were far from research institutions. Instead, they were early professional schools for educating the clergy, later on for training medical doctors and lawyers. Research came much later as the natural sciences developed in the eighteenth century, and the universities as we know them today, combining teaching and research, are primarily a phenomenon from the nineteenth century onwards. In fact, several of the academies that were founded in the seventeenth and eighteenth centuries were initiatives to pursue the research that was not taking place in the universities at the time (Engwall 2015). Similarly, in the nineteenth and the twentieth century, a number of new institutions of higher education appeared. Some of these were professional schools created outside traditional universities: medical schools, institutes of technology, business schools, etc. These external foundations occurred particularly in Europe, while US universities were more open to welcoming professional schools as part of their institutions (Engwall et al. 2010). Many of these were originally teaching institutions but eventually developed the Humboldtian model of both education and research. Today, most of them, like other academic institutions, have tended to focus more on research than education.

In view of the above-described development from teaching institutions towards institutions where faculty members both teach and do research, it is appropriate for our discussion to elaborate somewhat on the two basic tasks of universities. Starting with education, it should be noted that it differs from many other services in at least three respects. Firstly, a student should not know the content of an education beforehand; if he or she did, it would be of no use to spend resources on it. Secondly, even if a student highly appreciates an education, he or she would not do it over again. Thirdly, students are unlikely to hear negative information about an education, since alumni have a self-interest in protecting and enhancing the reputation of their

education and their Alma Mater. All this places students at a disadvantage in their selection of programmes. As a result, the reputation of an educational institution communicated through the careers of alumni as well as by family and friends has for long been very important for students' educational choice.

Likewise, reputation is important for the assessment of the second main task of universities, research. Since research is expected to develop new knowledge, this may imply that it challenges traditional wisdom and established methods. It is therefore of extreme importance that research results are continuously examined. This occurs through the peer-review system in which experts in a field critically scrutinize the output from the research of colleagues. However, since the system, as mentioned above, has expanded to such a significant extent, there is nowadays a tendency to use different kinds of metrics to evaluate research. Impact factors of journals and citation counts have become the instruments that are fed into accreditations, evaluations and rankings. In this way, also in terms of research, universities operate on markets for reputation, as their academic status is crucial for the acquisition of resources and the hiring of distinguished faculty members.

Local vs. Global Actors

An obvious dimension both in terms of education and research is space. Hence, to what extent is a specific institution serving local or national communities and to what extent is it a global actor? Looking more closely at the internationalization of higher education, it can be classified by means of two significant variables: (1) the origin of the students, and (2) the location of the delivery. For both variables, a distinction can be made between (a) the domestic country, and (b) foreign countries. It is thereby possible to identify four modes of internationalization of higher education (Fig. 1.2): (1a) education of domestic students at home: i.e. *import of ideas* through textbooks, etc., (1b) education of domestic students in foreign countries: i.e. *outsourcing* through student exchange, (2a) education of foreign students in the domestic country: i.e. *insourcing* through student exchange or active international

	Location of delivery	
Origin of students	*Domestic country*	*Foreign countries*
Domestic country	(1a) Import of ideas	(1b) Outsourcing
Foreign countries	(2a) Insourcing	(2b) Foreign operations

Fig. 1.2 Four modes of internationalization of higher education

recruitment, and (2b) education of foreign students in foreign countries: i.e. *foreign operations* through setting up campuses abroad.

Of the four modes of internationalization, the oldest one is insourcing (2a), that is, students going to foreign universities for their studies. It goes back to the Middle Ages, facilitated by the fact that Latin was the *lingua franca* at the time. Recent studies show that at that time Swedes, for instance, went to Vienna (Ferm and Kihlman 2011), to Leipzig (Andersson et al. 2014) as well as to Cambridge and to Oxford (Andrews et al. 2017).[5] The recruitment of foreign students at the time obviously differed from that in modern times, when universities are quite active in selling education to foreign students in order to collect tuition fees as well as to enhance their reputation, as internationalization has turned into a quality variable. Today foreign students are also recruited through exchange programmes, which include the outsourcing of teaching and examination for some time to foreign partners (1b). The most radical mode of internationalization is the setting up of foreign campuses (2b), which in some cases have been problematic.[6] Overall, however, at present times it seems that the most important internationalization is that taking place at home (1a) with textbooks from multinational publishers, since, even today in a globalised world, the majority of students tend to be nationally, not to say locally, recruited. The main reason for this is the above-mentioned characteristics of higher education, namely, the difficulty of evaluating educational programmes beforehand and the consequent significance of reputation, which has long tended be locally constructed. More recently, rankings and accreditations have led to an increasing propensity of universities to stress in their mission statements their ambitions to compete for the brightest students on a world market. (See further Engwall 2016).

The ambitions regarding internationalization are even stronger in terms of research. Even before modern information technology the communication between scholars was astonishingly well developed.[7] However, the expansion of the research community in the twentieth century has entailed the increased organization of scientific fields. Studies of the development of new fields demonstrate that over time scientific entrepreneurs who encounter resistance in their home country after some time find foreign colleagues with similar interests, as innovations tend to pop up in many countries at the same time (Engwall and Hedmo 2016). As illustrated by Fig. 1.3, they create informal networks, which in due course develop into formal associations with journals and other means of communication. In this way, various scientific fields are increasingly becoming internationalized.

This internationalization is reinforced by the competition for reputation among academic institutions, journals and individual scholars. In this process, bibliometric

[5] For evidence from other countries, see Haskins (1929, pp. 1–35), Mietke (1985) and Schwinges (1988).

[6] Alajoutsijärvi et al. (2013), for instance, demonstrate the problems for business schools in Dubai.

[7] For instance, Fries (1903, pp. 113–114) reports that the Laplandian study trip of Carolus Linnaeus in the 1730s was reported in the Hamburg journal *Nieder-Sachsische Nachrichten von Gelehrten neuen Sachen* only weeks after his departure and return.

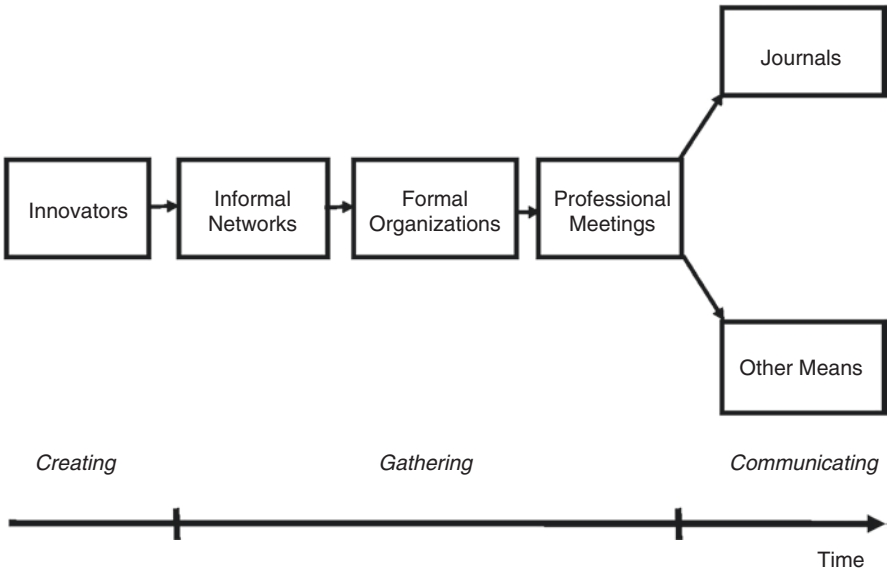

Fig. 1.3 The organizing of scientific fields. (Source: Engwall and Hedmo 2016)

methods have become a very strong force, with their emphasis of Journal Impact Factors and citation figures (cf. e.g. Blockmans et al. 2014).

The Internal Governance of Universities

Obviously, ambitions regarding the two fundamental tasks of universities are crucial for their missions. However, these cannot be formulated and pursued in isolation but rather have to take into consideration the three above discussed governor groups. In relation to their three signals mentioned (rules, benchmarks and norms) Institutions generally tend to respond by undertaking three types of actions (Fig. 1.4): persuasion, promotion and protection (Engwall 2018a, Ch. 7).[8]

Persuasion is used towards regulators in order to bring about advantageous political decisions and to convince regulators that the rules are being followed. Promotion is undertaken in order to convince market actors of the eminence of the organization as such and what it offers. Protection, finally, refers to actions undertaken to prevent disgrace. For all three actions, Institutions tend to create special *boundary-spanning units* (small broken circles in Fig. 1.4) dealing with Public Relations, Communication, Marketing, Quality Control, etc. In addition, they employ various *intermediaries*

[8] For further discussions of university responses to pressure, see Berman and Paradeise (2016).

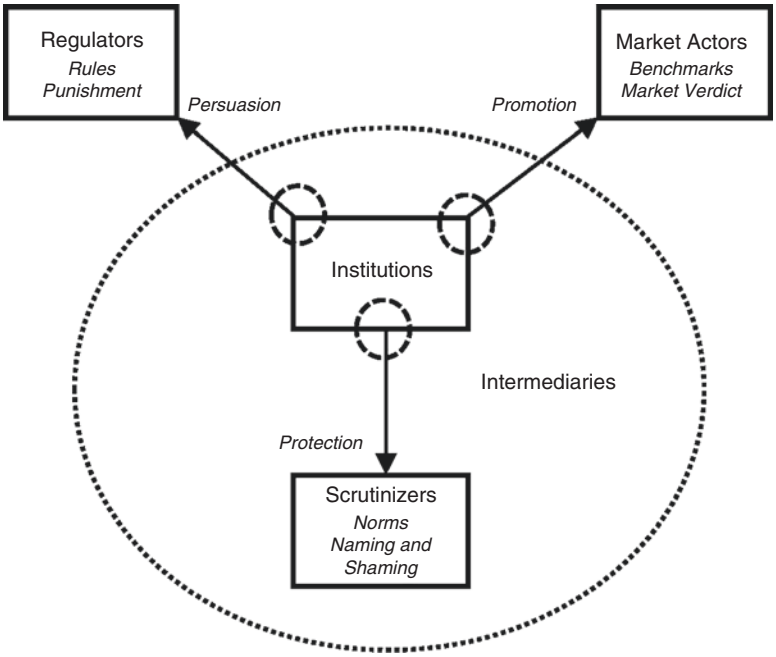

Fig. 1.4 Institutional responses

(large broken circle in Fig. 1.4), that is, different types of consultants and interest organizations to which they belong.

Universities tend to employ Persuasion strategies towards Regulators in order to influence the allocation of government resources for education as well as research. For the latter this game got off to a flying start in the United States after the Second World War in the wake of the Vannevar Bush report in 1945 on 'Science the Endless Frontier' (Bush 1945). Likewise, universities use Promotion strategies to communicate to students, through various kinds of marketing activities the great advantages of choosing a particular university, and to the markets for financial capital (research grants and endowments) as well as intellectual capital (distinguished faculty members). Finally, they use Protection in active work with Scrutinizers in order to gain acknowledgement through accreditation and to influence ranking systems as well as to avoid unfavourable media coverage.

The above is to a certain extent a result of a development entailing that large corporations have become the role model for all organizations in society. In this situation, it is important to remember that universities are professional organizations with limited financial capital and considerable intellectual capital represented by faculty members. This in turn has implications for the internal governance of universities. In early times and, indeed, even up to the latter part of the twentieth century, collegial decisions were dominant. Over time, with a growing academic body, decisions could no longer involve everyone but had increasingly to be handled

through representative bodies. In recent times, there have even been tendencies to abolish such forums in order to develop a distinct line-based organization. The Swedish system is here a prime example (cf. Ahlbäck Öberg and Sundberg 2017).

One crucial decision, not least in terms of university missions, is the selection of university leaders. While rectors, vice-chancellors and presidents were earlier elected among their colleagues to become the *primus inter pares*, they are nowadays largely recruited on a market with the assistance of search consultants.[9] This in turn has stimulated faculty members having a bent towards an administrative career to start early in lower administrative positions and subsequently move to higher administrative levels. Of course, this has the advantage that those who make such careers are well prepared for administrative duties. However, the other side of this coin is that they risk losing contact with the main missions of universities, education and research. However, they will have a much better understanding for the culture of universities than the outsiders that are increasingly recruited to administrative positions, making universities multi-professional organizations.

In order to preserve the influence of faculty members, some universities, particularly in the United States, have established senates. Two examples are the public UC Berkeley (2018 ARWU rank 5) and the private Stanford University (2018 ARWU rank 2), where such bodies were set up in 1920 and 1968, respectively.[10] In this way, these two universities, through different arrangements, employ an internal governance structure that can be seen as an application of the Frenchman Charles-Louis de Secondat Montesquieu's principle of separation of powers, the three balancing powers here being the Board, the President and the Senate.

The Board plays a significant role in the mentioned troika. As a result, the recruitment of its members is very important. Here, the two above-mentioned top universities differ, in that the public UC Berkeley is under the jurisdiction of a Board of Regents for all ten UC campuses, evincing considerable political representation, while the private Stanford University has its own board with a broader non-political profile.[11] In terms of the role of Board, a former Chairman of the Stanford University Board, Burton J. McMurtry, a venture capitalist, declared that

> The trustees literally are the owners of the institution. And they certainly cannot act unilaterally because they require first of all extremely strong faculty, and strong administration as well. So […] the board could never run the university. And should not try. But it can have a very important role in selecting the leadership of the university and having an influence on the priorities and resource allocation within the university.

McMurtry's highlighting of the significance of university leaders is further emphasised by the work of Amanda Goodall (2009), who by means of empirical studies has pointed to the advantages for research universities to have top scholars as

[9] For a study of vice-chancellors in Sweden over 50 years, see Engwall (2014). See also Engwall (2018b, pp. 4–8) for the recruitment of the Presidents at UC Berkeley and Stanford University.

[10] See further Engwall (2018b, pp. 8–10). For a history of the Stanford Senate, see Stansky et al. (2018).

[11] See further Engwall (2018b, pp. 2–4).

leaders.[12] In this way, they will have the advantage of both internal and external legitimacy in an organization that is far from a corporate hierarchy. Again, quoting McMurtry:

> Universities are essentially inverted pyramids in that the president of the university is at the bottom of the pyramid, not the top. Because the faculty form the bulk of the pyramid and the president is basically there to do what the faculty directs or expects the president to do. And it's […] a difficult system to manage because the president had better not act as if he is some authority figure who could tell the faculty what to do.

Similarly, the former Stanford President Gerhard Casper has described university governance to a large extent as being "self-governance by faculties as constituted in departments, schools, and institutes" (Casper 2014, p. ix).

An important rationale behind these two statements is that universities have one peculiar characteristic, which distinguishes them from most other organizations. This is the possibility of faculty members to finance their research by external research grants. As a result, the control of the cash flow, which is a key component in management, has limitations for university leaders. These limitations increase with the degree to which project financing to individual researchers is used instead of block grants to their institutions. Thus, despite well-formulated mission statements and strong governance ambitions from university leaders, faculty members may go off on their own tracks.

In addition, in terms of the ability of university leaders to govern their institutions, it is appropriate to point to research on executive behaviour. A classical study by Carlson (1951) showed that executives were constantly being disturbed and therefore would be better characterized as puppets on strings than as conductors of orchestras. Stewart (1967), Mintzberg (1973) and Kotter (1982) later corroborated these findings, while a more recent study by Tengblad (2002) has shown that executives 50 years later were less disturbed, probably because of the creation of the above-mentioned boundary-spanning units. Nevertheless, the research on the working conditions of managers still shows that they have far from full control. In terms of university leaders, a study of 30 Swedish Vice-Chancellors (Engwall et al. 1999) showed that although they expressed a preference to work with long-time strategies, their days were filled with short-term problem-solving and representational duties.

Overall, when it comes to the implementation of mission statements, we can thus conclude that these may be only loosely coupled to the actual activities of universities. In fact, mission statements may be seen as a form of rhetoric designed to improve the reputation of the institution. As pointed out above, the latter is extremely important for an organization like a university struggling to attract students, faculty members and financial resources. It is particularly crucial since universities are offering, through the dissemination of ideas and research results, services that are very difficult to evaluate in advance. This circumstance makes it appropriate to increase our understanding of missions of universities over time and across space.

[12] Obviously, the external board members can, as demonstrated by Mathiesa and Slaughter (2013) be important channels between academe and industry.

Contents of the Volume

A basic idea behind this volume is that the historical roots of universities, from the early medieval universities and onwards, are important for the understanding of present-day universities and their future. As demonstrated above, any in-depth understanding must also be based on an awareness that universities need to be viewed in their societal context. In pursuit of this, for historical reasons the focus of this volume is on the European and US context. Such a bias is also to be found in the world rankings of universities. Thus, among the 500 highest AWRU ranked universities the vast majority (70%) are located in Europe and the North America. In this way, they have provided and still provide role models for universities in other regions and therefore have significance for the present and future operations of such higher-education institutions.

Against the above backdrop, *Jürgen Mittelstrass*, in Chapter 2, elaborates on the changing concept of the university. His point of departure is the observation that universities are changing because (1) their environment (social as well as institutional) is changing, and (2) because science (taken in the broad sense of the word) is advancing. This development is often shaped by political and economic constraints, external factors, which compel internal reorganization. By facing external constraints with institutional imagination, Mittelstrass argues, things work out in this situation wherever academic rationales prevail. Where they are absent, and the political and economic constraints rule, the university is threatened with the loss of its essential nature. Therefore, and in general, the intellectual situation of a society is also reflected in its universities. As a consequence, Mittelstrass demonstrates how the concept of the university has changed over time. This in turn leads him to finally discuss whether the idea of a university that meets the expectations of both science and the surrounding society still exists.

Chapter 2 is followed by four chapters dealing with universities during specific historical periods, starting with the medieval universities in Chap. 3 by *Wim Blockmans*. His point of departure is the medical school that emerged in the southern Italian city of Salerno at the end of the eleventh century. He demonstrates how its reputation soon led to successive creation of such establishments in Bologna, Padua, Montpellier, and Paris, and that the origins were evidently connected with the commercial links between southern Italy and the centres of Arabic civilization. Empirical studies based on Greek natural philosophy were fostered there in various fields, such as ophthalmology, pharmacology, astronomy, and geography, as well as mathematics. When Salerno declined in the thirteenth century, the other institutions became the models of medical faculties at the European universities, increasingly distancing themselves from practical applications and empirical research. Therefore, training in surgery, pharmacology and midwifery instead became vested in guild corporations. As a result, Blockmans concludes that empirical research in the Middle Ages started inside universities but eventually came to be pursued outside them.

Universities were thus, as pointed out by *Hilde De Ridder-Symoens* in Chap. 4, struggling with their self-consciousness and their mission even as early as the Middle Ages. However, as she demonstrates in the chapter, the discussion about identity and mission as well as the methods for reaching these goals became much more acute in the period of Humanism and the Renaissance. Idealistic, ethical, religious and scientific awareness conflicted with a pursuit of utilitarian professionalization and socialization of the elites, which became dominant in the seventeenth and eighteenth centuries. This has to be linked to the changing attitude towards social openness – not to use the word democratisation – of the universities. Between ca. 1450 and ca. 1600, she argues, there was room for students from the upper-lower and the lower middle classes. In the last two centuries of the ancient regime, it became much more difficult for the non-elites to attend an alma mater. The Humboldtian University was thus a reaction against the economically and professionally driven institutions of higher education.

This Humboldtian University is then the focus of Chap. 5 where *Johan Östling* discusses the history of the modern German university and the topicality of Wilhelm von Humboldt's ideas. He shows how the Humboldtian tradition – with its origin in Prussia around the year 1800 – has been transformed and has given direction to the debates about research, higher education and academic freedom ever since. The chapter demonstrates in what ways Humboldt's ideas have been appropriated for various purposes in different historical contexts and epochs: in the emergence of the research university in the German Empire in the late nineteenth century; in the period of reconstruction in the aftermath of the Second World War; in the rise of the mass university in the Federal Republic of the 1960s; and in the discussions about the Bologna Process in the early 2000s. The conclusion of the chapter is that the Humboldtian ideals have never been timeless. They are historical phenomena and have always been determined by the predicaments and issues of the day. At the same time, many of the key concepts and fundamental ideas have remained the same throughout the modern period, albeit interpreted in different ways.

While Chaps. 3, 4 and 5, deal with European universities, *Roger L. Geiger* in Chap. 6 turns to the missions of an emerging population of US universities. He points out that the advancement of knowledge is now widely assumed to be a fundamental mission of universities. But it has always coexisted with and sometimes been overshadowed by other, more student-oriented missions such as the preservation and inculcation of culture, the preparation of professionals, and in America at least the cultivation of practical skills. Thus, the mission explored by Geiger – the research mission – has always been one activity among many, although to varying degrees, in US institutions of higher education. This was the case at the beginning of the twentieth century, when American universities were provincial outposts in the world of science; and it was true at the end of the last century, when they had become global leaders, the model for world-class universities. Geiger therefore examines the dynamics of the research mission in American universities in the twentieth century and relates this to the relative accomplishments in the actual advancement of academic knowledge. There are many moving parts in this process,

but Geiger particularly focuses on: (1) the growth of knowledge itself as an independent, international phenomenon external to individual universities, (2) the balancing by the university leadership of its multiple obligations and ultimately its missions, (3) the societal expectations – call it the zeitgeist – playing a large role in influencing how university leaders balance the institution's missions and activities, (4) the level of resources available for the research mission, influenced internally by the previous two dimensions, and in modern times by the degree of external support, and (5) the faculty as the most critical resource.

While the early chapters provide historical perspectives, those following focus on modern times. The first of these, Chap. 7 by *Peter Scott*, addresses the challenge facing universities in the twenty-first century to preserve their essential character as critical institutions committed to the intellectual emancipation of their students and not be afraid to think the unthinkable at a time when the constitution of academic and scientific knowledge is undergoing radical change. Existing cognitive structures, grounded in comparatively stable organisational structures like departments and faculties (the latter meaning schools and colleges in the US) (traditionally described as the university's 'basic units'), are changing at an unprecedented rate. This is not only a result of the interior dynamics of disciplines, a familiar and well-understood process, Scott argues, but also exterior factors (such as new demands for accountability and 'relevance') and the development of more open knowledge communities embracing an expanding range of actors alongside researchers and scholars (including the users, brokers and managers of research as well as the general public). This much wider social distribution of knowledge production, Scott claims, poses fundamental dilemmas for the university, opening the way either to the accelerating commodification of knowledge or (more hopefully) to its further democratisation.

The fact that universities are increasingly obliged to be 'accountable' to society, a demand frequently repeated in contemporary debates about higher education, is further in focus in Chap. 8 by *Stefan Collini*. He points to the occurrence in recent years of a series of new demands on universities under this heading in the United Kingdom and examines the character of these demands and warns of some of the damaging or counter-productive effects, which can be generated when such measures take on a misconceived managerialist form. In so doing, he pays particular attention to the following two questions: (1) what does 'accountability' mean?, and (2) by what measures can an appropriate form of accountability be ensured?

Similar tendencies regarding modern US universities are discussed in Chap. 9 by *Francisco O. Ramirez*. He points to the fact that American higher education is increasingly a field in which universities and colleges are expected to be accessible, useful, and flexible organizational actors. These expectations are at the core of what increasingly constitutes a global model of the good university. This model emerged earlier in the decentralized and competitive American higher-education field, though some of its features have intensified in recent decades. The chapter first contends that an optimistic, liberal, and individualistic culture facilitated the decentralized and competitive American higher-education field. In addition, it focuses on three

key organizational components: (1) the entrepreneurial university and development offices, (2) the individual empowerment university and diversity offices, and lastly, (3) the professionalized university and legal offices. These developments are contrasted within a national sample with an Ivy Plus data set. Lastly, Ramirez addresses the question of whether a theorized American higher education in the form of 'best practices' aided by references to 'world-class' rankings impacts higher education throughout the world. At issue is whether universities face not only a local and national environment but also a global and globalizing one.

The changed environment for universities has, as pointed out in Chap. 10 by *Georg Krücken*, led to a transformation of the university from being a multiversity with strong decentralization into an organizational actor, that is, an integrated, goal-oriented, and competitive entity, in which management and leadership play an ever more important role. Technology transfer, internationalization or 'good teaching', for example, have become institutional missions and are no longer conceived solely as decentralized activities in the hands of individual academics and the academic community. In the chapter, Krücken provides empirical evidence from Germany and elaborates on the resulting tensions between these two different ways of organizing activities, and attributing responsibilities concerning missions of universities.

Linda Wedlin discusses the idea of global markets in more detail in Chap. 11. Her point of departure is the fact that the ideal image of universities as locally embedded institutions and fundamental building blocks of the nation state is increasingly giving way to a view of universities as market actors with an increasingly global reach in their activities. Maintaining ideas of universities as rational and unitary actors, or organizations proper, this view of a global market for universities transforms the way these organizations operate. One of the significant changes is the notion of competition: universities perceive themselves as competing and find themselves on a quest for status and reputation on a global market for higher education and learning. And, this competition for status and reputation, Wedlin argues, is increasingly organized by, for instance, international organizations and through global ranking lists, but it is also met by individual universities organizing their 'market activities' in new ways. The chapter therefore also provides a discussion of the characteristics of the idea of a global market for universities and how it is sustained and also explores the implications for universities as organizations.

Concluding the volume, Chap. 12 provides a discussion of the future of universities. By means of introduction, the chapter points to the significance of the historical development portrayed in the early chapters of the book as well as the fact that universities have been extremely resilient over time. For the future, the chapter revisits the challenges discussed in the later chapters and from present-day voices that are expressing concern about the future of universities. Against this background, the chapter returns to the governance model presented in Chap. 1, thereby providing a discussion of future issues in relation to Regulators, Market Actors and Scrutinizers as well as the Institutions themselves. In relation to Regulators, future universities are expected to face increasing efforts of governance in the interest of nations as well as a blurring of the distinction between public and private institutions. At the

same time, there are reasons to believe that universities will be under increasing competition from various Market Actors, new as well as old ones, in the recruitment of students, faculty members as well as in the acquisition of resources. In this competition, it is argued, there are advantages of age due to longer reputation building. It is also pointed out that Scrutinizers – the profession itself, media and non-government organizations – will play an increasingly significant role for future universities. This in turn is likely to increase the administrative overhead of Institutions as well as their use of Intermediaries. This tendency can be expected to be costly and take resources from the main missions of universities. As a result, the search for additional financial sources is likely to increase. Nevertheless, the chapter concludes by foreseeing a future of universities in an increasingly differentiated population.

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Chapter 2
The Idea and Role of Universities in Society

Jürgen Mittelstrass

Introduction

The university serves science (in research and teaching), and in serving science the university serves society.[1] This is the Humboldtian idea of the university which is still valid today, and even more so insofar as modern society sees itself as being on the way to becoming a knowledge society. This is a society that rests its development and therefore its future on the efficiency of the scientific and technological mind, which therefore recognizes in the formation of knowledge its essential productive force, and which, furthermore, is able to distinguish prudently between understanding, as the manifestation of dispositional or instrumental knowledge, and reason, as the manifestation of orientational knowledge.

In fact, the university, in linking research and teaching, which is constitutive for its nature, has always trained its members for a knowledge society. That is not only because the university is in itself a knowledge society in miniature, but especially because it creates and provides exactly that kind of knowledge which modern societies indispensably need – whether or not they call themselves knowledge societies. This is certified to them – almost paradoxically – by reminding them of their obligations towards vocation-related and practice-oriented education. Apparently, in the light of such an admonition, the university was and still is too intensively focused on knowledge formation, knowledge enhancement and knowledge justification and too little on practical crafts and skills. But what does a knowledge society need more than knowledge? Where else do the fundaments of knowledge lie than in science? Obviously, this also means that the knowledge foundations are produced through education, since it is closely linked to research, to knowledge formation by

[1] The term 'science' understood in the sense of the German term *Wissenschaft*.

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way of science, i.e. in the university. Other claims addressed to the university have to give precedence to this.

Therefore, and in general: not only the knowledge of the time, but also the intellectual situation of a society, is reflected in its universities. Does an idea of the university, which meets both the expectations of science and the expectations of society, still exist? On this subject – and because it is by no means always clear – in what follows I present some short remarks under the keywords Leonardo World, autonomy and universality, transformative university and policy advice.

The University in a Leonardo World

We live today in a world that in its structures and its forms of life is above all the expression of the scientific and technological mind. Science is everywhere, and technology is there, too. I call this world a Leonardo World, after Leonardo da Vinci, the great Renaissance artist, philosopher, engineer and scientist. The Leonardo World is an artificial world for which there is ever less a natural world beyond its boundaries that corresponds to it. This in turn means that research, science and technology (i.e., the real constructors of this world) are ever more deeply drawn into their own world. Science is no longer a merely observing and analysing activity, but rather a world-shaping and world-changing activity. Accordingly, its responsibilities and those of its institutions, primarily its universities, also are growing. Making the world scientific also means definitively making science worldly, which changes the balance of various jurisdictions of science. Put in focus: Whereas it might have seemed up to now that the sole theme and single task of science was to know what intimately holds the world together, in a Leonardo World this task is more and more the necessity of actually holding the world together. With this research imperative, the notion that science is useful or ought to be useful has become a burning issue, not only for society but also for science itself, and consequently for the university, too. The university is the unique place for the observance of the research imperative because as an institution it links research with teaching, it maintains studies and disciplines, and it trains the future researchers.

In its second part (‘holding the world together’), the research imperative is also a moral imperative; it commits the researcher (and the teacher) to a practical objective and, at the same time, reminds us that science not only solves problems but also creates them. For example, the dangers to the biosphere are in no small measure the results of successful scientific (and technological) rationalities. Thus, following the research imperative will not deliver us once and for all from the dilemma of research and its consequences. Failure to follow it, including its sense as a moral imperative, will lead the Leonardo World even deeper into self-caused and other problems. The university, again, is that institutional locus of a Leonardo World in which a knowledge society deals with its own strengths and weaknesses. In order to meet this task, for the university the following conditions, among others, must be satisfied: autonomy and universality.

Autonomy and Universality

Today the university is threatened with the loss of its essential nature and, with that, the loss of its idea and theory. This nature, which I characterized as the Humboldtian idea of the university, consists of an autonomous organization of research and teaching, together with, and joined by, a concept of education, which both reflects and lends a critical self-consciousness to the Leonardo World as well as to a knowledge society.[2] In other words, universities have to continue to be or to become the planning subjects of their own development, in the sense of a practised outer and inner autonomy. Outer autonomy means political autonomy; inner autonomy means structural autonomy.

Political autonomy is expressed in terms of lack of external dependencies (political and economic constraints); the structural autonomy in question is expressed in the realization of structures informed by thinking about the systematics of science, for instance, at the level of the organization of fields and disciplines, the establishment and abolishing of areas of specialization in research, but also in the implementation of quality standards following international measures in research, teaching, and the training of junior academic staff (the aim, here, is not to become a global actor but to gain global recognition). Where this is not feasible or not desired, autonomy, in the form of an isolating strategy with respect to interference of any sort, will lead to structural immobility and ultimately to the university's bidding farewell to general development. For example, as we all know, science and research are increasingly pushing transdisciplinarity beyond disciplinary core areas, and the institutional structure has to take this into account. That means that a system of science, including the one given with, or realized within, a university, has to follow the developments of research and science – and create the adequate institutional background for this – and not, the other way around, that the development of research or science is determined by the given system. Many universities still have to learn that. To become an entrepreneurial university, or a national champion, or a local powerhouse, or whatever the reason of university politics might happen to imagine, is of secondary importance.

As to the concept of universality as an essential part of the nature of a university, in a situation in which in many countries professional schools adorn themselves with the name of a university, it is once again time to point out that universality (of fields and disciplines) is a constitutive mark of a university. Despite all tendencies towards specialization, academic knowledge is something that only grows on a field which everyone tends. Great achievement requires not only specialized knowledge, but also close contact to other areas. Gottlob Frege was a mathematician and philosopher, Max Weber a sociologist and historian, Max Delbrück a biologist and physicist. Disciplinary boundaries do not determine actual achievements here. On the contrary, these boundaries must as a rule be overcome, if great achievements are to result. This is especially the case in modern developments. New insights most

[2] For the following, see Mittelstrass (2010).

often form on the edges of fields and disciplines, at the borders to the neighbours, and not at the core where textbook knowledge resides. Thus universality, in its institutional forms of fields and disciplines, cannot be arbitrarily restricted. Put otherwise, research and teaching thrive only to a degree in departmental or disciplinary greenhouses. Access to the (university's) external environments must remain open, and there must be passage in both directions: one must be able to get outside when one is looking for complementary knowledge, and someone else with a similar desire must be able to get in. This means that the university must hold to its claim to universality. This is particularly required with respect to problems offered by the Leonardo World, which are, as a rule, complex problems (like the dangers to the biosphere mentioned before).

Universality is also a prerequisite for transdisciplinarity, which, again, is an answer to the increasing complexity of problems within and outside science. Transdisciplinarity means that problem-induced cooperation between disciplines leads to a permanent scientific order that changes the structure of the subjects and disciplines – in contrast to interdisciplinarity which in most cases means temporary cooperation (Mittelstrass 2003). Transdisciplinarity turns out to be a form of carrying out research, thus a form of science, when it concerns problems not only of the Leonardo World, e.g. solving environmental, energy and health problems, but also when it concerns the order of scientific knowledge and scientific research itself. In both cases, transdisciplinarity is a research or science principle, not a theory principle. It is relevant where the definition of a problem or the solution to a problem within a subject or discipline is not possible, or where the definition of problems or solutions leads beyond subjects or disciplines. In other words, transdisciplinarity is an integrative concept. It eliminates the isolation that has emerged in scientific practice and can often only be explained historically, at a higher methodological level, but it does not pursue a universal interpretation and explanation pattern. It also eliminates shortcomings that have evolved over time, where subjects and disciplines have lost their historical memory and problem-solving power because of too much specialization.

Again, the university is the (institutional) locus where disciplinarity and transdisciplinarity meet in order to solve scientific problems as well as problems of the Leonardo World. Wherever this order is interfered with, by political, economic or other constraints, science loses its strength, the university its power, and society, on its way to a knowledge society, its basis.

Transformative University?

Science connects epistemic structures, that is to say the manner in which science understands the world, with (scientific) truth, and it connects institutional structures with (social) reality. Both structures form a complicated unity within science itself, in which the distinction between internal and external elements threatens to become blurred. For science is both a particular form of knowledge formation as well as an

institutional form of this knowledge formation, the university being the paradigm of such a connection. The threat of blurring internal and external elements becomes clear if one thinks of the criteria, which guide the sciences. For it is difficult to distinguish unequivocally between so-called internal norms, such as logical consistency, testability and intersubjectivity, from external norms such as relevance, practical applicability and innovation. Nevertheless, it is not such epistemological topics that concern us here, but the institutional aspect. In fact, recent proposals for a reorganization of science and the university go in the direction described above, changing science and the university profoundly. The frame is formed by the concept of a transformative science, by which science is determined by social and environmental objectives. For example, calling it the Great Transformation, the principle of sustainability is declared to be a comprehensive programme, based on a new social contract which also includes science and the university (WBGU 2011).

Under the title 'transformative university' with the objective of a sustainable society, diverse forms of obligations of the university are discussed today. They range, mostly on a system theory background, from a recollection that universities serve not only (scientific) truth, that is, autonomously determined knowledge formation, but also the objectives and aims of a society which recognizes in science an essential base of its progress, to a direct commissioning of the university under social objectives, in this case the realization of a sustainable society (Bien, et al. 2017). The university, as we know it, not only since Humboldt, is becoming a sustainable university. Its definition runs (Sterling et al. 2013, p. 23; see also Schneidewind and Singer-Bodowski 2013, pp. 39–41):

> The sustainable university is one that through its guiding ethos, outlook and aspirations, governance, research, curriculum, community links, campus management, monitoring and modus operandi seeks explicitly to explore, develop, contribute to, embody and manifest – critically and reflexively – the kinds of values, concepts and ideas, challenges and approaches that are emerging from the growing global sustainability discourse.

Here, the allocation of the system university (being part of the system of science) among other systems, such as politics or the economy, is succeeded by the submission to these systems. Reference is to a model, Humboldt 2.0, in which the search for (scientific) truth and cognition no longer determines the pace of the university but rather service to society, here with respect to sustainable progress (Schneidewind and Singer-Bodowski 2013, pp. 102–103). This task can also be found in concepts such as a stakeholder university or an entrepreneurial university. Here, too, not scientific or academic, but social, particularly economic interests guide the university. Its self-conception in the old sense is then described in such a way that universities

> provide research and teaching in return for public funding at a relatively high degree of institutional autonomy; under this contract, the universities, often supported through research-funding agencies, have been expected to generate fundamental knowledge for society, and to train the highly qualified manpower required by an advanced industrial society (Gibbons 1999, C 81).

But what is wrong with this description? Certainly not that the university fulfils its obligations towards (fundamental) research and teaching. But might it be instead,

that it sticks to the image of a linear process leading from university research to applied research? Indeed, this image is questionable, but for other reasons than those given here. It is not the utilization of science and the university for a sustainable society, thus a society-theoretical argument, which speaks against a linear transfer model from basic research to applied research, but this distinction itself, thus a science-theoretical or epistemological argument.

It may once have seemed as if science in the strict sense was simply basic science, and for this reason was justified simply by reference to the aims of truth and cognition, whereas applied research followed the interests of the market. However, today it is quite different. Pure basic research is practiced only in a few domains, and this is true not only outside, but just as well within the university itself. Basic research, that is, research, the results of which show no recognizable practical applications, application-oriented basic research, that is, research from which we expect applications in the long term, and product-oriented research, that is, research which promises particular applications in the near future, form a triangle of research, often mutually supportive in concrete research programmes both within and outside the university. They interlock and intermingle when focussing on a problem. Pure basic research still exists only in very special research fields; application-oriented basic research is becoming more and more the norm. The archaic simplicity (sometimes simple-mindedness) in research affairs has become a complex interlocking of interdependent research orientations. This means that the goals of science, in as much as these are expressed by such ideals as truth and cognition, are more and more joined to the goals of a world that is less inclined to admire than to apply the results of science. In fact, neither the Greek mind, to whom we owe the idea of science, nor the modern mind, which created the modern world, a Leonardo World, cautioned science in its cradle to stay away from application. Again, this is an intra-scientific, and also an intra-university development, nothing imposed by the society or by a paradigm shift turning the university into a transformative or sustainable university.

All the same, it is said that it is society that started a transformation of science. With the catchword Mode 2 a fundamental change in the relation between science and society has been described (Gibbons et al. 1994), meaning a shift from ‘reliable knowledge’ to what is now called ‘socially robust’ knowledge (Nowotny et al. 2001):

> The latter characterization is intended to embrace the process of contextualization. For ‘socially robust’ knowledge has three aspects. First, it is valid not only inside but also outside the laboratory. Second, this validity is achieved through involving an extended group of experts, including lay ‘experts’. And third, because ‘society’ has participated in its genesis, such knowledge is less likely to be contested than that which is merely ‘reliable’ (Gibbons 1999, C 82).

At the same time, it is claimed that socially robust knowledge is superior to reliable knowledge

> because it has been subject to more intensive testing and retesting in many more contexts – which is why it is ‘robust’ – and also because of its malleability and connective capability (Gibbons 1999, C 84).

With this, science and the university are committed to a societal programme; research becomes programme research and is socially determined. This ignores the fact that autonomy is not an external property of research, and that the scientific community does not represent itself as an individual entity, which can be controlled from outside (Strohschneider 2014, p. 104).[3] But what might be even more serious: here, it is not only the status of science that is changing (or is meant to be changed), but also, in a highly problematical sense, the concept of science. The new concept, one could say, is the concept of science studies, which is a sociological concept, not the concept of philosophy of science and science itself.

As far as the university and its redefinition as transformative (or even more: as a sustainable university) is concerned, this definition, taken by itself, is rather strange. After all, it is not the sustainability of the university that is at stake, but rather the use of scarce resources and the future of society. The sustainability of the university – if one really wants to talk this way – is, ironically, endangered only if the university should become obliged to obtain the protection of sustainability in the defined sense and, accordingly, if its autonomy were to be confined.

Therefore, I plead for more modesty and a sense of proportion. The university does not solve the problems of the modern world, of the Leonardo World, but it certainly can contribute to their solution. In the case of climate research, but also, for instance, in the case of energy and medical research, this is obvious. The best way for the university to serve society is to stick to its core missions, and thereby to develop a strong sense for the solution of practical problems, problems of the Leonardo World. Whoever follows the research imperative, here in its meaning as a moral imperative, follows the right track anyway. He keeps to the strengths of the university and does not deliberately question these strengths in favour of an – always a bit trendy – sustainability rhetoric. The strongest critic of science is science itself. This is also the commitment of the university – in its research and in passing on what it has found out to the world. This is a research as well as a social process.

Policy Advice

The relation between science and society has never been simple. Science was expected to deliver all that society needed – minds as diverse as Plato and Francis Bacon may be mentioned here – or, at other times, science caused social trouble – Copernicus and Darwin can be named as examples. Even when society was receptive, presumed scientific unworldliness and chronic incomprehensibility (or opacity) marred the delicate relationship. This has not changed up to today, as the call for a transformative science has shown. But there is also something else. Science, according to a general expectation, should be of this world and simple – and this is rarely

[3] Strohschneider also rightly points out that it is "hoechst voraussetzungsreich, Forschung generell […] als Problemlösung zu denken" (p. 179). In this, too, consists a dangerous and hardly justifiable constriction of science and the university.

the case. The image of an ivory tower represents not only the autonomy of science – it could (should?) once again be so understood considering the increasing covetousness of economy and politics – but also the lack of contact on both sides. This includes the relation between the university and society.

Now, if it is not advisable to commission science and the university in the manner of transformative science and a transformative, or even sustainable, university, could it be possible (and advisable) to facilitate the relation between science and society by a consultative role of science and the university – in addition to what a research imperative might accomplish (Mittelstrass 2012)? Under the heading of 'advice' (or 'counsel'), science and society ought to effect a sort of rapprochement: science should be applicable without becoming political – a tall task, not just for science. After all, the scientific mind follows the concepts of (scientific) truth and justification – even if philosophy of science often does not see eye to eye with the reality of these concepts in scientific practice. In its orientation towards action, the political mind, on the other hand, adheres to the concept of power and practical efficacy. Against the background of earlier concepts, such as Plato's and those of the Enlightenment, science in the role of political advisor, from the point of view of science, is seen as an attempt to reform the world after all; from the point of view of politics, science is seen as means to its own ends. So what are the implications for scientific policy advice? The attempt of science to gain political influence quickly unmasks itself as an illusion – and is probably not to be recommended in light of the particular way in which the scientific mind works – and, on the side of politics, the attempt to make science subservient forces science to think in unfamiliar categories. Disillusionment seems to be programmed, again on both sides.

But should this really be the last word? Is scientific policy advice simply idling, that is, propelling nothing? If that were the case, it would mean that although a large part of the modern world, the Leonardo World, turns out to be an achievement of science, science itself has no influence on its world, and that the modern world is indeed aware of its dependence on science but nevertheless attempts to direct science for its own purposes, keeping its relation to science arbitrary. Neither of these conditions is desirable, quite apart from transforming science into transformative science and the university into a transformative, or even sustainable, university. The actual problem of the relation between science and society, science and politics, lies in the institutionalization of scientific policy advice. Here, the alternative is a scientific institution that acts as science advisor (like the Leopoldina in Germany, where its promotion to a national academy is linked with a statutory commitment for scientific policy advice) or a scientist fulfilling the same role (as in Anglo-Saxon countries). In the first case, an institution is committed by contract to supply application-relevant knowledge, in the second case a scientist passes – and this is the decisive factor – from the house of science into the house of politics. He employs his scientific knowledge in order to give policy advice and can take this stance without having (or being able) to speak in the name of science; he would not be legitimized by science (as an institution) to do so.

No matter which of these alternatives is preferred (an institution committed by contract or an individual changing sides), the relationship between science and

policy remains non-binding (on the side of politics), which usually is of little importance when both science and politics meet as separate worlds, but leads to considerable frustration on the part of science, hiring itself out to no effect. According to its own laws, science is used to the fact that knowledge, scientific knowledge, is binding. This is where knowledge differs from opinion. Science, in the case of policy advice, has to learn that its knowledge is handled like any other commodity. This again speaks against a commitment to becoming a transformative science or a transformative university (according to the definitions mentioned above).

Nevertheless, something else also has to be mentioned: even with political indicators, policy advice is not essentially the task of socially responsible science, rather it is society advice. In a certain sense, scientific knowledge is not owned by politics, but by society. And not only in 'technological' issues does this become evident – when implementing scientific know-how in technical and other products – but in an essential sense also in a social-scientific and humanities-oriented, one could say 'philosophical', context. Beside social sciences and humanities, society or (rational) culture itself is the addressee of this knowledge; politics only to the extent of its speaking and acting on behalf of society. From this perspective, science does not hire itself out to politics with all the ensuing problems relevant to its own nature, its own essence. For society and its culture, including political culture, it would rather do the work of enlightenment, in a broad sense, including the development and structuring of the social and cultural world. Its responsibility would then be directly for this world and not primarily for politics focussing on its own targets. This again is, once and for all, the duty of the university.

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Chapter 3
Medieval Universities and Empirical Research

Wim Blockmans

Introduction

Universities emerged as centres of high learning in medieval Western Europe in the twelfth century, as an expression of the steady growth of production, population and self-awareness of a part of the world that until then had lagged far behind the cultures of the ancient world. Their name '*universitas*' was a generic term, as it referred to a great diversity of corporate bodies, and therefore needed to be specified as '*universitas studii,*' the corporation of studies, or '*universitas magistrorum et scholarium*', the corporation of the masters and students (Rüegg 1992, pp. xx, 8). "Not demand for socially applicable knowledge led to the foundation of universities [but] existence of certain disciplines of value for social tasks" (Rüegg 1992, p. 26). These disciplines were in the first place related to physical health, imitating the schools connected to hospitals in the Arabic world.

The questions I would like to address in this chapter are twofold.

First, how can we explain that universities, which have nowadays spread all over the world, emerged in twelfth-century Western Europe as relatively autonomous centres of learning and education, as the content was borrowed from antiquity and the Arabic world, but their institutional context differed from those models? To stay with the latter, teaching was either linked there to mosques or to hospitals, while the oldest European universities were organised precisely as organisations distinctive from the traditional schools in abbeys, cathedrals and chapters.

Second, how did the medieval universities' educational curriculum relate to empirical knowledge, which since Wilhelm von Humboldt has been seen as a necessary corollary of teaching? This question arose mainly in the 'higher' faculties of theology, law and medicine, though it was most relevant for the medical faculties given the institutional context and normative character of the other two disciplines.

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The Emergence of Universities in the Twelfth Century

Regarding the first question, it is clear that demographic and economic growth, starting in southern Europe in the tenth century, led to the intensification of overseas commercial relations between the Islamic and the predominantly Christian regions. Transfer of knowledge and techniques went along with the exchange of products. Merchants from Amalfi and other places around the Bay of Naples were well-established trading partners in tenth-century Fustat, the capital city preceding the later neighbouring Cairo, which implies that they must have sailed to Alexandria (Abulafia 2011, pp. 268–270). Travelling to and in Egypt and the Levant, they became acquainted with the advanced pharmaceutical products and knowledge there, possibly also with the functioning of hospitals. That input must have been instrumental in the creation of the medical school of Salerno, known since the eleventh century, the first and the most influential in Europe until the thirteenth century.

The rapid growth of towns and cities, first in Italy, not only triggered the commercialisation of the economy but also the increased need for legal instruments to secure exchanges. It is no accident that Bologna, located at the crossroads between north and south, and torn between the rivalling powers of the commune, popes and emperors, became the home of numerous private law schools that trained specialists in written law. In the course of the twelfth century, eminent lawyers restructured the great legal traditions of Roman civil law and canon law. In 1155, Emperor Frederic I protected the students against the local authorities, and by the 1180s–1190s the overarching organisation became stabilised. Around 1220 the arts school was established, where grammar, rhetoric, epistolary art, and logic were taught, and around 1260 the medical school was firmly embedded. The birth of European universities can best be understood as an incremental process by which various schools, in which students and masters had formed their own associations, became federated under a cupola protecting them against interference from civil and ecclesiastical authorities.

The University of Paris emerged in the same way and roughly with the same rhythm, but with the school of theology at the chapter of Notre Dame as its initial core, and eventually its main opponent, though protected by the King and the Pope. The arts faculty was formed around 1240, the 'higher' faculties in the 1260s. Oxford, in the mid-twelfth century just a minor market place with some quite considerable ecclesiastical institutions and schools, received a papal statute in 1214, after an incident that had led to the storming out of a group of students to Cambridge. A *studium generale* with a *universitas scholarium et magistrorum,* probably a grouping of schools of medicine, is documented in Montpellier in 1137, and the admission of Jewish and Islamic students was confirmed in 1180 and 1220. The medical school of Salerno did not evolve into a *studium generale*, as Emperor Frederic II founded a full-blown university in Naples in 1224, primarily focusing on the formation of legal experts in Roman law.

The bottom-up federation of schools was typical of the first wave of university formation. In the thirteenth century, the model became standardised, consisting of

basic education in the arts faculty, and a professional level in theology, law and medicine (Verger 1992, pp. 47–55). That model was inspired by the combination of the monastic infrastructure (colleges have quadrangles with a chapel or church, a library, a refectory, and a dormitory) with a guild organisation, and it mimicked its autonomy vis-à-vis religious and secular authorities from the communal movement. That autonomy guaranteed the universities' receptivity to older non-Christian scholarship, to which they showed an open mind justified by its evident superior development. That mind-set towards non-Christian science was similar to that of the merchants who had been dealing for centuries in the Islamic regions around the Mediterranean. The University of Montpellier explicitly welcomed Jewish and Muslim students in the awareness that the best physicians in Iberia belonged to those scientific traditions. The relation with empirical research was an issue of prime importance in medical faculties, more than in the others.

Medicine in the Medieval Universities

Medical practitioners were informed by ancient Greek and Arabic intellectual traditions and translations of treatises by famous Islamic physicians into Latin, some of which were produced in the great abbey of Monte Cassino. In the twelfth and thirteenth centuries, Salernitan authors composed short practical treatises based on various classical authors, to be used in their teaching (Siraisi 1992, p. 366). These synthetic writings became disseminated through Europe, combining elements of the ancient natural philosophy and medical knowledge (some of which had been preserved in the libraries of Christian monasteries and chapters) with empirical observations and inventions made in the Islamic medical, ophthalmological and pharmaceutical practice. From the twelfth century onwards, the medical schools in Paris and Montpellier were inspired by the doctors and the treatises from Salerno, and in Montpellier by Jewish practitioners as well, and so their influence spread through Western Europe. The fact that translations from Arabic were made into Latin in monasteries in Sicily, Southern Italy and Iberia, facilitated their circulation and contributed to the use of Latin in all university disciplines. That had been the general practice in the older Catholic monastic and chapter schools, as well as for Roman and canon law and for theology, but for medicine it was less self-evident. The consequence was that Latin became and remained until the nineteenth century the language of all European universities, which facilitated mobility among students and masters, but distanced learning from practical life (De Ridder-Symoens 1992).

In the thirteenth century, it were not yet members of the Medical Faculty of Bologna, established only around 1260, but local practising surgeons who wrote influential treatises in Latin. In the thirteenth and fourteenth centuries, the curriculum in the medical faculty in the leading universities of Bologna, Montpellier, and Paris provided a combination of ancient natural philosophy and Arabic sciences, with some practical training and new empirical insights. Practical teaching was a compulsory component for graduation in Montpellier from 1240 onwards, and

anatomical demonstrations and dissections of human cadavers then belonged to the regular curriculum in Bologna under the impulse of Guiglielmo da Saliceto (1210–77). He wrote several treatises in which he advocated surgical interventions in specific traumatic cases. In Montpellier, such demonstrations were held occasionally. Empirical observations brought prominent surgeons to new insights, as appears from the works by Saliceto's pupils Lanfranc and Mondino, who in turn would further develop surgery in Paris and train the next generation. Moreover, they left texts in manuscripts with great numbers of illustrations showing various surgical interventions and opened bodies displaying organs. Visualisation added considerable value to the didactical usefulness of the texts (Petrucelli 1978, pp. 319–335). Next, the contribution to empirical research of four of the most influential surgeons will be discussed.

Lanfranc of Milan (c.1250–c.1310) moved from Bologna to Paris, where he was active as a surgical practitioner, in contact with but not teaching at the Medical Faculty. His *Chirurgia magna*, 1296, was disseminated in multiple translations and was printed in 1499. Mondino de Luzzi (c.1270–c.1326) reintroduced anatomy into the curriculum in Bologna and practised dissections of human cadavers in public lectures. His *Anatomia* (1316) was ground-breaking and had a huge impact, the first textbook to be printed, in 1478. However, his belief in Galen's (Pergamon 130–Rome 210) paradigm led him to inaccurate descriptions of internal organs (Chandelier 2017).

Henri de Mondeville (c.1260–1320) studied at Montpellier, Paris (with Lanfranc), and Bologna (with Mondino). Appointed as Royal Surgeon in 1301, he attended military campaigns that offered him great opportunities for anatomical observations. He was the first to apply dry and antiseptic bandages on wounds, a method that became standardised after 1867. He lectured at Montpellier and in the Parisian schools. Between 1306 and 1312, he composed a first version of his *Chirurgia*, which was translated into French in 1314. The author revised and extended his Latin text until his death, leaving it divided into five chapters, dealing with the anatomy, wounds, illnesses, fractures and bruises, and the *antidotarium*, the pharmaceutical healing methods. For him, experience prevailed over the theories of the ancient authorities, and he ridiculed the medical physicians who relied exclusively on the ancient paradigm of the four humours, which led them to apply uroscopy even for wounds. Like Lanfranc before him, he deplored the dichotomy between surgeons and physicians, as, in his view, these professions linked to different disciplines needed to collaborate. He saw a clear distinction between both learned disciplines and the practitioners, such as barbers who tended to apply bloodlettings without having any knowledge of the body's internal functioning (Pouchelle 1983, pp. 9, 24–31). The tendency to eschew surgeons was most outspoken in the Parisian medical faculty, which in 1350, in the aftermath of the Black Death, forbade the bachelors to apply any surgery.

The fourth towering figure of fourteenth-century surgery was Guy de Chauliac (c.1298–1368), who studied medicine at Toulouse, Montpellier, Bologna, and Paris and was appointed surgeon at the papal court of Avignon. Thanks to that privileged position, he was allowed to perform autopsies on victims of the plague in 1348,

while, on the King's request, the Parisian medical faculty's advice about this unknown catastrophe of unprecedented dimensions had entirely remained stuck in astrological constellations that created lethal vapours. People should wait ten more days, until the 17th of July, to see the poisoned rainfall pour down, by which the air would become clear again; during the rain, one had to avoid at all cost coming into contact with the bad air. Further, the faculty recommended a diet (Bergdolt 1995, pp. 71–72). In contrast, de Chauliac dared to treat patients afflicted with 'pestilences' when all other doctors fled out of fear. He was one of the first to describe and differentiate the two types of plague, bubonic and pneumonic, and incised his own lumps, as he seemed to be infected himself. He was aware of the contagious character through the air but unable to identify the agent, which was discovered only in 1893. His *Grande Chirurgie* consisting of books dealing with anatomy, anaesthetics, apothems, cancer and plague, wounds, ulcers, fractures, bandages, dental surgery, gynaecology and surgical techniques, such as tracheotomy, gained far more and lasting authority than the faculty's prognostics, which became falsified within a fortnight. His references to Hippocrates and Galen represented 31% of all his 3,280 quotes, 35% were to four Islamic authors, while contemporary authors, mainly Lanfranc of Milan and Henri de Mondeville represented 18% (Bonnichon 2007).

Some notion of contagion through the air had been known since ancient Greek physicians developed the idea of a forty-day incubation period during which sick persons had to remain isolated. That insight should not come as a surprise, as plague had afflicted the Byzantine and the Sassanide Empires and Mediterranean ports in 541–542. It was recently determined as being caused by the *Yersinia pestis* bacterium (Harbeck et al. 2013). In that light, the city physician of the Adriatic port Ragusa, Jacob of Padua, suggested concentrating affected persons outside the city hoping to keep the contagion under control and to cure the sick. In 1377, the city decided to isolate all persons coming from afflicted regions outside the walls for a period of thirty days. The survivors were supposed to be free from the infection. In the following decades, the isolation method was extended to the main Mediterranean ports of Marseille, Venice, Pisa, and Genoa, and its duration to forty days, similar to the Lent period, but the plague remained endemic in Europe until 1722. A physician from Padua had been instrumental in curbing its dissemination to pandemic dimensions.

University-trained healers held no exclusive rights vis-à-vis other more or less learned practitioners, and it was service at courts and private teaching that offered the highest status, not faculty membership. In the twelfth to fifteenth centuries, fewer than half of the medical practitioners in France had studied at a university, and 417 out of the almost 2,000 'learned' practitioners became university professors or regent masters. Only a small minority of medical students took a degree as a doctor: on average 4 per year in Bologna, a maximum of 10 per year (one tenth) in Padua, and far fewer elsewhere (Jacquart 1981, p. 363). Academic medicine endeavoured to assimilate ancient and Islamic insights, and its scholastic method enabled them to identify contradictions between their authorities. The discipline remained strongly embedded in the paradigms of classical natural philosophy and poorly connected with the data of experience (Siraisi 1992, pp. 384). In general, one can say that empirical research was promoted exclusively in the three most prominent medical

faculties – Bologna, Montpellier and Padua – the latter taking the lead in the fifteenth century ahead of Paris. Ancient theoretical wisdom prevailed in most of the other universities until the seventeenth century. Private colleges and court offices could offer more freedom for practical observations and experiments, and the empirical work by the eminent surgeons in such positions significantly enhanced medical, particularly surgical, knowledge and practice during the thirteenth and fourteenth centuries. Their treatises were widely translated, illustrated and copied throughout Europe until the early sixteenth century. Moreover, their knowledge trickled down to practitioners through simple illustrated manuals for surgeons and midwives in the vernacular languages. Several texts dealing with gynaecology were attributed to a female teacher at the school of Salerno in the eleventh century, named Trota; a great number of adaptations circulated in different languages in the course of the centuries, some of them complemented with observations by practising midwives (Delva 1983; Lie and Kuipers 2011). The physician of the Flemish city of Ypres, Jan Yperman (1260–c. 1332), who studied in Paris with Lanfranc of Milan, was the author of one of the early surgical treatises in Dutch, in which he added advice based on his experience in the urban militia (Leersum 1912; Huizenga 1997).

Andreas Vesalius (1514–1564) would link again to the forerunners in the thirteenth and fourteenth centuries and he returned to the investigation of human cadavers to establish the 'Fabric of the Human Body', published in Padua in 1543. He had a bachelor's degree from the University of Leuven, but left to find more opportunities for anatomical research. Thanks to the dissections he was allowed to perform in Padua, he could prove that Galen's numerous erroneous anatomical statements had been based on dissections on animals. The newly invented techniques of the printing press and copper engravings supported the lasting dissemination of his findings. Saddened by the continuous criticism from traditionalists, he left for Spain to become the court physician of Charles V and Philip II. Again, and with the notable exception of Padua, it were not the universities that facilitated a fundamental breakthrough, as most of them remained stuck in theoretical paradigms (De Ridder-Symoens 1996).

Law and Arts in the Medieval Universities

Law

Law faculties came into being in a development similar to that of the schools of medicine, but independently from them in the initial stage. Private law schools merged in Bologna in the mid-twelfth century into a *studium* that was keen on preserving its independence vis-à-vis both lay and ecclesiastical authorities. As the tradition of church law proved inadequate for the emergent needs of the commercialised economy and a society with a higher level of literacy, Roman law received renewed interest. Both law systems were restructured in Bologna, the civil law code by Irnerius in 1112–1125, canon law by Gratian in 1140. These two corpora became

the pillars of law schools and faculties elsewhere in Europe, inspired by the Bologna model as it had become stabilised by the 1180s. Its autonomy was occasionally supported by emperors and popes, especially with regard to claims by communal authorities (Verger 1992, pp. 48–50). This learned law responded only to some of the needs of the late medieval urbanised and commercialised society, especially because it was formulated in Latin. It was still applied in Byzantium, the Eastern Roman Empire, and therefore it was translated into Greek and adapted to the needs of the time (Penna 2017). In Western Europe, customary law had vigour everywhere on a local and regional level, and it functioned on a practical level mainly on the basis of a huge variety of privileges and collective memory. Specific sectors were not, or only partially, covered by the codifications, especially feudal, criminal and maritime law. Specific laws and jurisdictions in vernacular languages existed for these and similar sectors, in which knowledge of the local customs and practices was essential (Cordes 2017, pp. 75–82). The learning in law faculties thus remained far from social and economic practice; canon law found application in ecclesiastical courts, whose procedures, along with some principles of Roman law, found their way to high courts on the Continent, especially in support of monarchical power.

This observation applies even more to the theological faculties, of which the Parisian one was the first and most famous. It emanated from the cathedral school and, with royal and papal support, struggled successfully for its autonomy from the bishop and the chancellor. The intellectual challenge in their commentaries on the 'authorities' was attempting to forge a synthesis of faith in sacred texts and logic. The masters formulated questions about obscure or irrational issues and contradictions, for which answers were sought by systematic reasoning. This scholastic way of thinking was developed through multiple controversies between famous Parisian masters and became essential for a wide range of intellectual arguments (Asztalos 1992, pp. 410–413).

Arts

The arts faculties counted by far the greatest numbers of students and masters, as they were offering basic education in the liberal arts, being the three concerning communication (grammar, rhetoric, and logic, the *trivium*) and the four more advanced (music, arithmetic, geometry, and astronomy, the *quadrivium*). The practical uses for communicative skills, and of elementary knowledge about music, arithmetic, and geometry were evident, but all of these were dominated by a strongly theoretical, computational, and speculative element. Astronomy was thought to provide an understanding of the alleged cosmological effects on human actions, illness and natural hazards. The *quadrivium* curriculum contributed to the "purposes of medieval university […] providing an élite with the knowledge and skill needed to serve society", more specifically to become impregnated by the prevailing worldview (North 1992, pp. 337–339).

However, essential components of the liberal arts were not taught at the universities but were left to practical training. Mathematical knowledge was needed for merchants' calculations of profit margins, rates of exchange, insurance and interest on credit, as well as for bookkeeping. As a consequence of the informal character of the transfer of this type of knowledge, we have much less information about it. Manuals and other practical devices must have circulated on a large scale but have been scarcely preserved, because of their simple form and daily use. In Florence, *maestri dell'abbaco et l'algorismo,* masters of the abacus and algorithm, was taught in six schools in 1338. Practical instruction books, of which only a few Italian copies are known, contained information and examples for the instruction of merchants, informal training in the company or in the workshop, as it was regulated by guilds (Hunt 1994, p. 65).

Another case was that of geography, the teaching of which largely rested on Ptolemy's (c.100–c.170) wisdom, reinterpreted in a Christian vision of the three known continents caught in a circle with Jerusalem at the centre. Westerners travelling to China since the 1240s had corrected some ancient perceptions, but the most important development was that of mapping the Mediterranean coastlines. Shippers who crossed the sea in all directions compiled knowledge about prevailing winds and streams, and the routes to take from one port to the next. The dissemination of the compass in the late twelfth century made it possible to establish the direction and to estimate the distance between ports. All such information was listed in handwritten booklets of directions (rutters) that may have been complemented by sketchy maps of the coastlines (portolans). The oldest known portolan charts, dating from the late thirteenth century, have been preserved in a few luxury copies offered to monarchs and kept in libraries, while the charts effectively used on board did not survive (Unger 2017, pp. 19–20). Over time, portolan charts became more precise and encompassed larger areas. A recent geographical analysis demonstrated that regional portolan charts, based on visual observation of coastlines, applied various scales and orientations but were highly precise for the coasts of the Mediterranean and the Black Sea, while showing gross deviations around the North and Irish Seas (Nicolai 2014). The progress made in mapmaking since the sixteenth century – with Gerard Mercator and Abraham Ortelius as the great innovators – were typically developed in court service and commercial enterprises in the main ports of Antwerp and Amsterdam, not at the universities.

Conclusions

Universities emerged from private schools in medicine and law, as a response to practical needs in society. The model of schools connected with hospitals existing in the Islamic regions was not copied in Europe, presumably because Christian abbeys had developed institutional care for the sick since the early Middle Ages, and the Church jealously preserved the charitable task of health care. Male and female religious communities of various orders devoted their mission to caring for

the sick in hospitals connected to their cloister, which proved to be a functional combination. Physicians, surgeons and midwives were called in when needed, but they did not belong to the institution. Law and justice, on the other hand, had never been tasks exclusively fulfilled by clerics. With the exception of the domains claimed by canon law, such as the sacraments (which included marriage, baptism and extreme unction, all these touching laymen's vital interests), judges were laymen, a great deal of the law consisted of traditions preserved in the collective memory, and acts were performed orally in vernacular languages. On the other hand, the Church did retain great influence on literacy until around 1300, which effectively was a near-monopoly of the clergy until the early twelfth century, exactly the period when the first universities were created. Reluctantly, the Church had to give up its monopoly on primary education, but it retained a strong position on the secondary level via the Latin schools, and the universities would remain under exclusive ecclesiastical control until the Reformation. As we saw, various forms of professional education grew within urban guilds and turned to the use of vernaculars, just as communal and territorial administrations did.

The Church had gradually incorporated new forms of monasticism, and so it recognized various kinds of hybrid organizations such as the military orders. The order of the Hospital of Saint John in Jerusalem received a statute combining the religious status of its members and in particular that of its personnel, with the necessities of life and health care in conquered Islamic territory. Newly founded hospitals in Western Europe received similar flexible statutes. The same happened with universities: the personnel enjoyed clerical protection and privileges, while they were not necessarily bound to the monastic vows of chastity and poverty; obedience, however, was a general prescription, in principle to the elected master or rector. Matters of theological orthodoxy could be referred to the higher ecclesiastical authorities, depending on the university's privilege. Medieval universities had different statutes, being organized in various ways, and left variable margins of freedom to their teachers and students. In the thirteenth and fourteenth century, the three or four leading universities allowed empirical research including public dissections of human cadavers, which made it possible for some masters to publish innovative insights based on their observations. However, after their patently inadequate advice on the plague, the Parisian faculty of medicine decided to forbid surgical interventions, reducing its role for the next four centuries to esoteric speculations.

University training did mould students to a logical way of thinking and a clear way of expressing thoughts – albeit in a dead language. It provided them with a worldview, in fact a very traditional one but with a coherent metaphysical theory. The scholastic method even trained them in developing opposing arguments and to use logic to discuss the authorities' assumptions. In some theoretical disciplines, such as mathematics, new lines of thought were designed, in particular in fourteenth-century Oxford, where attempts were made to measure the change in quality and motion, and to visualize this in diagrams (Verboon 2010, pp. 121–154). The liberal arts provided a frame of thought with a strict methodology, mathematical precision and theoretical consistence: "The universities and their intellectual traditions provided at least a matrix for the Scientific Revolution […] so dynamic, that it quickly

expanded well beyond the ambit of the university" (Porter 1996, pp. 548–559, quote on pp. 554–555). However, with their exclusive use of Latin, and with their rigid focus on commenting ancient 'authorities', most late medieval universities cut themselves off from innovations that were fostered in law courts, commercial companies, guilds, public administrations, and monarchical courts. The alumni were trained as clerics and lawyers to serve the conservative authorities of the Church and the State, while the real innovators all remained outside academia or left it.

The universities emerged in a period of steady growth of the population, especially in the cities. This happened first in Italy, where both urbanization and commercialisation had boomed earlier and on a larger scale than in any other European region. Italians had developed intensive commercial exchanges with the more advanced regions in the Near East, where the tradition of ancient Greek natural philosophy had been carried further by Islamic scholars, many of whom were active in Persia. Progress had been made there, especially in the fields of mathematics, astronomy, pharmacology, and ophthalmology. The emergence of the first medical schools in Salerno was a side-effect of the commercial relations which have been attested since the tenth century. Medical issues are ubiquitous, but the urban growth, as well as the spread of contagious diseases such as leprosy intensified the demand for care. The transfer of Islamic knowledge clearly helped to respond to the growing need.

The formation of schools in Bologna that would coalesce into what is considered to be the oldest university, concentrated on the study of law. The same general conditions triggered this new activity: the links with the Byzantine empire provided access to manuscripts that allowed a better acquaintance with Roman law as codified under Emperor Justinian by 533. The intensification of transactions, due to general and urban population growth, activated the demand for sophisticated legal instruments. This applied especially to the three major powers contesting supremacy in the Italian peninsula: the papacy, the Roman Empire, and the major cities. Bologna was one of these, strategically located on the *Francigena*, the main road linking Rome with Western Europe, at the edge between the papal sphere of influence and that of the growing city-states.

In even more general terms, the basic training programme of the *trivium*, in grammar, rhetoric, and logic, was instrumental in enhancing skills that where functional in increasingly complex communities. Did the emerging universities have a clear mission? Certainly not, since their formation was an incremental process where various actors in different creative local environments independently facilitated students to respond to new demands in society at large.

Papal steering inspired a blueprint for their organization, which in Robert Bartlett's enlightening words crystallized the university 'from a fusion of the priesthood and the guild', to which the monastic architecture added the model of the college (Bartlett 1993, p. 310). Papal protection granted universities opportunities to foster innovative thinking independently from nearby authorities. The medical faculties vibrated by their empirical research challenging the age-old theoretical frameworks. The lawyers codified and re-interpreted canon and Roman Law. The clerical encapsulating and the use of the Latin language supported the dissemination of old

and new insights through Europe. It also implied, however, that limits to its functions for lay society and to free thinking became apparent. Synods found the Oxford-based theologian John Wycliff guilty of heresy and the pope banned his followers. In 1415, the Council of Constance declared him posthumously heretic and had his Czech pupil Jan Hus burned at the stake. Hus became the icon of the Czech Reformation, and many of Wycliff's critical ideas on the veneration of saints, the transubstantiation, sacraments, monasticism and the papacy became core features of Protestantism.

From the sixteenth century onwards, the embedding of universities in the Catholic Church increasingly hampered free thinking and empirical research. Fundamental societal needs were no longer met by the scholastic theoretical paradigm, and innovations flourished in other contexts. The model of ecclesiastical governance which had protected the universities in their prime, had become suffocating. Universities became a niche for the reproduction of social elites, isolated from the societies' dynamic sectors. The scientific revolution, nor anatomical knowledge, modern cartography, or accountancy were initiated in the universities (Cohen 2015).

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Chapter 4
Universities and Their Missions in Early Modern Times

Hilde De Ridder-Symoens

Introduction

Since the nineteenth century, we have become used to associating universities with professional training and with basic and applied research, and, as a consequence, with skills, performance, invention and innovation. Further, in the twentieth century, social democratic discourses became of more and more importance. In this chapter, I will argue that the relations between the university and society and between the university and research in the Middle Ages and the Early Modern Period (i.e. before 1800) were not so obvious and that you might even describe them as love–hate relationships or at least confrontational ones.

For understanding the social role of the university in society it is necessary to formulate clearly what is to be understood by 'democratic' processes at a time when social differentiation and social categories were rather vague. This does not mean that the three medieval social orders (those who engaged in (manual) work, those who fought and those who prayed) were not very clearly perceived by every contemporary. Social historians have succeeded in distinguishing between social categories and in emphasising the middle class that became a dominant player from the late Middle Ages onwards. Its ups and downs were linked to university attendance. Indeed, in the more urbanised and industrialised countries, the number of university students from the middle groups of society increased considerably in the course of the fifteenth and sixteenth centuries. This had various causes. First of all, improvements in the quality of the pre-university Latin schools (grammar schools) stimulated higher education. Furthermore, the humanist's view that citizens had the obligation to render service to the state made law studies even more attractive. After all, the early modern bureaucratic states and churches needed more and more

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qualified civil servants. As a result, the chance of social promotion and career opportunities within the state and church apparatus stimulated higher studies. Economic prosperity also increased the study opportunities for the middle classes and especially for artisans. Education was a consumption product that was and still is highly sensitive to economic fluctuations. As a consequence, in the fifteenth and sixteenth centuries the presence of students from the lower bourgeoisie was greater at the universities than in the following centuries. Indeed, due to changing economic, institutional and social developments in the seventeenth and eighteenth centuries, the higher social classes (noblemen and high bourgeoisie) dominated the student population (Schwinges 1992a, b; Di Simone 1996; Müller 1996).

The discussion about the mission of the university is also animated by two different visions of research, innovation and scholarship in the early modern period. On the one hand, university historians focus chiefly on the institutions as being the leading cultural and scientific forces in the Western world and in those countries where the European academic system has been taken over. Historians of science and scholarship, on the other hand, emphasise the role of the individual scientist and scholar, not necessarily belonging to academia. They believe that the rise of science and scientific innovations flourished particularly outside the university structures and were therefore not hampered by conservative institutions (Frijhoff 2010).

In speaking about the role and mission of the university in the past, it is also essential to agree about the meaning of invention and innovation and to look at the changes they underwent in space and over time. We must be aware of the fact that since the 1960s governments – and in their wake academic authorities – have attributed a more and more technical and economic concept to innovation. Universities are considered as generators and developers of such innovations. Pragmatism dominates the university discourse, which has resulted in a pronounced reduction in theoretical, fundamental and not directly applicable research. But this was not always the case.

These discussions raise the questions of what the mission of the university is and to what extent the current discourse is related to space and time. To what extent do they have an impact on the social background of students and scholars and on scientific creativity and on the resulting innovations? What does the history of the university tell us about all these interactions?

In the following I will explain how and why the opinions on the role and mission of the university changed in the course of the centuries (about 1300–1800s). This will help to clarify what happened in the nineteenth and twentieth centuries in this domain.

The European universities that came into existence in the late eleventh and early twelfth centuries passed through different stages in their history. Although it is historically not truly justified to make such broad generalisations, I will take the risk of enumerating some secular trends in view of what is to follow.[1]

[1] For a general introduction to the history of the European universities see: Rüegg (1992–2011) and its derivative Jílek (1984); Clark and Neave (1992); Charle and Verger (1994). Hurtubise (2001–2007): the four Proceedings of the symposia organized by IFCU do not have a synthetic character, but they often bring to light interesting additions.

Main Tendencies in University History

Thirteenth century: homogeneity and universalism of university education; pursuit of syntheses and rapprochements between Ancient, Arab, and Western knowledge and Christian Doctrine. Transmission of knowledge to the next generation of teachers. Christian universalism of higher education. Teaching and research based on canonised authorities.

Fourteenth century: growing secularisation of the student population and changing finalities of the university in the framework of state formation and the professionalisation of society.

Fifteenth century: growing 'nationalisation' of universities as a result of state formation and state control; growing numbers of lay students of all social backgrounds in search of career opportunities.

Sixteenth century: introduction of humanist concepts and methods that were at odds with the confessionalisation of the universities; intense social and geographical mobility; growing attempts to modernise the content of teaching and research.

Seventeenth century: aristocratisation of the university and emphasis on the socialising function of the university; success of the Grand Tour; fewer academic possibilities for the lower social strata.

Eighteenth century: rationalisation, modernisation and deconfessionalisation of higher education; multiplication of disciplines in the frame of utility; more attention to the teaching of technical skills; greater submission to the State.

Nineteenth century: application of the enlightened academic paradigms in a German Humboldtian idealistic model and a French Napoleonic utilitarian model; growing specialisation and fragmentation of teaching and research.

Continuity and Discontinuity

University history shows how and why the university grew to encompass the whole of knowledge, how it trained academic and professional elites whose ethos transcended national boundaries, how it developed intellectual traditions common to all Europeans, and later on to intellectuals all over the world, and how it became initially the motor and seat of cumulative knowledge and scientific research, and how it lost its monopoly in the course of time.

The unbroken continuity of the university was challenged several times, but it always succeeded in surviving every crisis. The striking thing about universities is that they are *in se* conservative institutions whose main task it was and still is to transmit recognised knowledge to the next generations. The main reason for this continuity is their adaptability to the demands and needs of society. As conservative institutions, the required changes were often slowly introduced on the institutional and the curriculum levels as well as in the field of didactics and teaching languages. In the course of its existence, it were often the authorities who had to enforce these changes, albeit that it was in general more for their profit than for that of the

university community. It was not incidentally that newly created institutions of higher education were in the main more flexible and eager to implement modernisations and innovations in the field of teaching and research than the traditional ones. Good examples are Wittenberg, established in 1502, which immediately embraced Humanism; Leiden, founded in 1575, which was very open to natural and technical sciences and tolerant towards minorities; Halle and her 'daughter' Göttingen, respectively created in 1693 and 1733, were enlightened and opened up to practical and useful sciences.

It is indeed striking that between its coming into existence about 1200 and the French Revolution, the shaping and organization of the university did not change very much. In addition, we can say that from about 1800 until the 1960s and 1970s the concept and institutional framework did not fundamentally change either. It was rather the curriculum that got a real facelift by the introduction of new disciplines linked to new faculties and departments.

Until the beginning of the nineteenth century, a full university consisted of four faculties: the lower faculty of liberal arts,[2] later on also called faculty of philosophy, where the humanities and the natural sciences were taught on the basis of the works of the all-round Greek scientist Aristotle and some other classics. The curriculum of this faculty was considered as propaedeutic for the three higher faculties: law, medicine and theology. The weak point – for our purpose – was the stepmotherly treatment of the quadrivial disciplines (natural sciences) in the traditional universities. The trivial courses (humanities) developed in the same period into sophisticated academic disciplines.

In the higher faculties, the medieval professors were also limited by Christian doctrine and by authoritative books such as the Bible and the writings of the Church Fathers, the Roman and Church law codes, Hippocrates, Galen, Avicenna and Ptolemy and their commentaries. The new disciplines that mainly arose during the scientific revolution of the sixteenth and seventeenth centuries were integrated into one of the four existing faculties or housed in specialised institutions, often completely outside the traditional universities.

Although enlightened sovereigns started to reform the existing or newly created universities, they did not touch the basic structure of the universities. This does not mean, however, that higher education remained unchanged. The new universities were created according to enlightened university concepts, namely secular, more scientific, didactically adapted and socially useful notions. This permitted the government to give its citizens the education necessary to make educated and loyal subjects of them, useful to the State and the Church. To this end, it was also necessary to align the educational institutions to the new conceptions of enlightened rulers and their advisers. University programmes were to be modernised by the introduction of new disciplines, such as mathematics, natural sciences, economics, business administration (*Kameralwissenschaften*) and, where necessary, the

[2] The *septem artes liberales*, or liberal arts consisting of the *trivium* (grammar, dialectics and rhetoric) and the *quadrivium* (arithmetic, geometry, astronomy and music), were the disciplines originally taught in the faculty of arts. In the course of time other subjects in the field of the humanities were added.

establishment of laboratories, observatories, botanical gardens, and so on. In addition, the State needed more training institutions in disciplines for which there was no room at the university, such as the visual arts, obstetrics, veterinary medicine and military science. To achieve these objectives, a systematic and widespread system of instruction was necessary. This is why many countries established a special state-level department for matters concerning education, a *novum*, which was a forerunner of our current ministries or departments of education. The development of this new concept of higher education found acceptance more easily in the Germanic and protestant world than in the Latin-Romanic and Catholic countries.

In the same period, France followed a different path. The new leaders of the French Revolution were more drastic in their approach. In September 1793, the Convention decided to abolish all universities within French territory, giving the following reason: "We do not need learned persons—we need free people, deserving their freedom. We must drive out aristocracy and barbarism."[3] Thus did the French revolutionaries end 600 years of university existence in the countries they controlled. The reason for those not so flattering words lay also in the function the majority of universities had exercised in the preceding centuries. According to the revolutionaries, the universities had been turned into degree factories offering to the youth of the social elite the qualifications required to gain access to high positions from the social and financial point of view, but low from the point of view of intellect. For the revolutionaries these institutions had no usefulness whatsoever for progress. Instead, they set up a vocational and useful teaching and learning system with no emphasis on research. This inspired other countries to develop broad vocational higher education. After this revolutionary period, universities were recreated in all the countries that had gotten rid of them. The educational and voluntary German ideas found followers worldwide, to such an extent that these ideas shaped universities during the nineteenth and twentieth centuries in Western countries and, in many cases, their colonies.

Mission of the Universities Before 1800

Let us now delve more deeply into the mission of the university in early modern times.

Professional Training

The most fundamental changes universities were confronted with throughout the centuries concerned their role and function within society.

[3] "Ce ne sont pas des savants qu'il nous faut, ce sont des hommes libres et dignes de l'être. Il faut chasser l'aristocratie et la barbarie." (*Collection complète des décrets de la convention nationale, imprimés dans l'ordre de leur publication, dans le département du Nord*).

Universities appeared during the Twelfth-Century Renaissance as corporations, associations of teachers and students (*magistri* and *scolares*) accomplishing common tasks and defending common interests. They started to be centres for the training of teachers and scientists. At that time, the professors gained access to a great number of new classical texts, in particular through Arabic translations and commentaries. The intensive study of Classical and Arab scientific authorities showed evident contradictions with the Bible and Christian authorities. Medical and legal authors, too, faced the same problems. Theologians, philosophers, medical doctors and lawyers considered it their duty to interpret, systematise and reconcile the old and new, the pagan and Christian values. In the course of the thirteenth century, the new concepts and visions were bundled in *summae* or surveys. The best-known is certainly the *summa theologica* of Thomas Aquinas (1225–1274), still popular nowadays. In the faculty of law, future lawyers were trained with the *summae* of the Italian jurists Bartolus (1313–1357) and Baldus (1327–1400), in some institutions even until the eighteenth century. We can say that in the Middle Ages all research was concentrated in the *studia generalia* – as universities were called at that time. The core business of the professors was nevertheless the transmission of approved bookish knowledge and the formation of teachers.

Very soon, another function was added. As early as the thirteenth century, and certainly in the fourteenth and fifteenth centuries, ecclesiastical and civil authorities made an appeal to academics to take on functions in the Church, the State and the City (De Ridder-Symoens 1996b). These academically trained civil servants also had the task of legally legitimising the position and exercised power of the sovereigns and other princes in their mutual struggles and claims. One of the best-known early cases is the confrontation of the French King Philip IV the Fair and Pope Boniface VIII in 1296–1303, with the lawyer and minister Guillaume de Nogaret in the leading role (Brown 2017).

As a consequence, the number of young lay people enrolling in universities grew rather dramatically. But the tension between a purely theoretical and a more practical education was also growing. Indeed, even in the Middle Ages there were complaints about the ‘unrealistic’ education universities provided, being too distant from what society needed. All the same, the intellectual training the future senior officials in Church and State received proved to be of inestimable importance in their later professional lives. The students learned to think in an abstract, logical and critical way; they became acquainted with notions such as category, relation, classification of knowledge, etc. They learned to apply the rules of rhetoric and logic and to get a clear and well-ordered view of a significant amount of knowledge. All this was a new way of thinking and debating that was introduced by the university.

There was another new element and an important one: the birth of individualism and individual thinking. Young men from different social and cultural backgrounds developed a great intellectual conscience, and, therefore, dared to be critical towards ‘authority’, this in a period dominated by the principle of authority. As an example, the students realised that, although the authorities tried to convince them there was only ‘one truth’, ‘truth’ was a complex idea that could be approached in different ways and was claimed as the ‘only truth’ by many beliefs. Dissidents and subversive

elements became an essential part of academia (Verger 1996; Copeland 2001). The emancipation of intellectuals from higher political and ideological authorities was facilitated by the fact that in the early modern period new universities were founded less and less under the authority of popes, emperors or kings, but by regional princes and cities (Frijhoff 2010, pp. 162–164).

Indeed, during the Renaissance, at the end of the fifteenth and the early sixteenth century, university studies became very popular due to society's ever greater demand for university-trained people. As a consequence, it was also a period of important upward social mobility. This, of course, was not only due to university education. It is clear that a number of conditions were required for giving young men from lower social strata an opportunity to move upwards and to find a place among the elites of society. The path to social advancement demanded not only intellectual gifts and successful studies but also the building up of a long-term and broad-based ensemble of social connections within a framework of favourable economic and political conditions. Urbanised and 'capitalistic' countries responded better to these necessary conditions than agrarian countries without an entrepreneurial middle class. My own research on the career possibilities of university graduates in the Low Countries has shown very clearly that during the long sixteenth century children of craftsmen, small landowners (yeomen), and the lower middle classes improved their social status by having at least attended an arts faculty. Other professions, such as schoolmasters, printers, artists and instrument builders, that hovered between a craft, a manual occupation, and an intellectual occupation, between those who worked with their hands and those who worked with their heads, received much more esteem and were accepted by the upper middle classes when their practitioners had attended a university (De Ridder-Symoens 1986).

By the end of the sixteenth century, the employment market for academics was saturated. For contemporaries from the late sixteenth until the nineteenth century the size of the student body was becoming a cause for concern, and the surplus of intellectuals was becoming a topic for ever more urgent criticism. The authorities in the seventeenth century were haunted by the fact that the inconsistency between the number of academics and the level of training, on the one hand, and the opportunities for employing them, on the other, constituted a particularly fertile terrain for tendencies that undermined the establishment (Frijhoff 1996, pp. 358, 393–397), and they were right from their point of view. As shown for England and France, these frustrated intellectuals played a decisive role in the revolutionary climate of the seventeenth and eighteenth centuries (Curtis 1962; Chartier 1982; Darnton 1971, 1982). A nice example of this discourse is the advice given to Charles II by the first Duke of Newcastle in 1660, warning him against too much education, especially too much of the wrong sort of higher education for the wrong sort of people (Twigg 1990). We find the same complaints mentioned by authors of the eighteenth century. A close reading of the works of such cameralists as Joseph Sonnenfels and Justus Möser and the biblical scholar Johann Michaelis and others shows that they

are explicit about the matter.[4] These eighteenth-century officials asked for limitations on the number of university matriculands to avoid the problems of unemployment among intellectuals (alienation of the intellectuals) (Klingenstein 1978). But there is more. State leaders feared that the wish of so many young men from lower social classes to become *literati*, and thus to obtain highly esteemed and better-paying jobs in the administration, would lead to a shortage of people active in manual work. To avoid disturbing the economic system and to protect the social order and the social hierarchy, the cameralists decided in favour of a *numerus clausus* in university attendance. They wanted fewer but well-trained graduates coming from the traditional milieu of intellectuals (bourgeoisie and nobility) and skilled workers in agriculture, crafts and industry belonging to the traditional classes of manual workers (labourers and artisans). As a consequence, the number of student grants decreased substantially except for the education and training of pastors (in arts and theological faculties). We have to wait until the nineteenth century before we get the same number of students enrolling in universities as in the sixteenth century, when they constituted about 2% of the population. The discourse of the shortage or surplus of intellectuals (university-trained people) has been cyclical, moreover, until the present day (Titze 1981, 1987).

Pursuit of Knowledge

In the Middle Ages the university was the collective space dedicated to the gathering of knowledge and wisdom, and to the development of methods in the search for truth. The teachers and scientists in every university made use of the same scholastic method to search for and transmit the results of that research to future generations. At the start of their academic curriculum, boys from the age of 14 had to learn how to think, reason and argue in a 'clean' way (Papy 2012). At the time that meant: according to the rules of Aristotelian logic. Scholasticism was a method of critical thought, placing a strong emphasis on dialectical reasoning to extend knowledge by inference, and to resolve contradictions. It was used in all the disciplines, relying only on authoritative books and reasoning. The books were explained in the lectures; the reasoning was sharpened by different kinds of disputations that can be considered as the tournaments of the medieval intellectual (Maierù 1994).

Under the influence of sixteenth-century Humanism, the omnipotence of scholasticism came under pressure, but it nevertheless lasted until the seventeenth century, when Aristotle was toppled from his throne and the scholastic way of thinking was slowly replaced by Cartesian analytic reasoning (Brockliss 1996).

[4] Joseph Freiherr von Sonnenfels (1732–1817), professor of political science at the University of Vienna; Justus Möser (1720–1794), alumnus of law at the University of Halle; Johann David Michaelis (1717–1791), professor of Hebrew at the University of Halle and professor of history at the University of Göttingen.

The humanist movement expanded the increasingly secular intelligentsia through the active participation of other players than the professors and students in the world of knowledge. Of course, the professors and students remained the core of higher education, but they came to be assisted by a new social group that emerged from the Renaissance: the intellectuals, members of intellectual and liberal professions, aristocrats and bourgeois living off their private means, and ecclesiastics who were free to spend their time on writing and science. Due to a broader dissemination of secondary and tertiary education, men (and a small number of women) learned to think autonomously and to form their own opinions, working in total independence with methodical and scientific tools, most of which came from universities.

The initial impetus was given by the Italian academies. Indeed, as early as the fifteenth century lovers of the *bonae litterae* and classical antiquity in Northern Italy came together in assemblies that were called academies by analogy with the Greek Platonic academy. City burghers with intellectual ambitions followed this example all over Europe. They came together in sodalities (*sodalitates*) and formed networks as part of the pan-European network of a virtual Republic of Letters. Intellectuals met in princely, secular and ecclesiastical courts, in literary and learned societies and in publishing houses but also in universities. What mainly held this 'Republic' together was not virtue but learning, including a common language (a more or less classical Latin, slowly superseded by French), a common, if highly disputed, view of the Christian past, and a devotion to the literary tradition essential for communication. They operated through travelling and written media, including correspondence, books, and especially journals, which represented the avant-garde as well as the rear guard of doctrinal and scholarly accomplishment and conflict (Bots and Waquet 1994, 1997; Grafton 2009). These periodicals contained not only articles but also book reviews, open letters, obituaries, and other genres of learned exchange, which, in the face of growing practices of censorship and suppression, constituted the material base for the critical discourse of the Enlightenment and its revolutionary aftermath (Kelley 2004).

In the course of the seventeenth century, many of these societies applied themselves to experimental sciences (Yates 1947; Boehm and Raimondi 1981; Chambers and Quiviger 1995; Bots and Waquet 1997, pp. 140–141; Treml 1989; Vermij 1999, pp. 24–46; Feingold 2002). Some learned societies as well as individual scholars built up collections of books and curiosities of all kinds (such as stones and gems, coins, fossils, foetuses, archaeological items, stuffed dead animals, insects). A visit to a famous private library or a *Wunderkammer* (cabinet of curiosities) became part of a Grand Tour or of a scholar's journey (Von Schlosser 1978; Impey and MacGregor 1985; Bots and Waquet 1997, pp. 138–140; Adamson 1999, pp. 30, 36, 182–183, 271–272).

At first, the Republic of Letters concerned mainly the humanities; it spread to natural sciences later on. The creation, in the late seventeenth and early eighteenth century, of scientific societies and the main royal academies, where natural sciences generally took precedence over literature and the arts, favoured the shift of natural sciences to the centre of gravity of Western intellectual life. Thus, the Republic of Letters developed chiefly into a Republic of Sciences, although this term was only

rarely used. The adherents were university professors, philosophers and all learned gentlemen interested in the natural sciences and in technical progress. Although women were not accepted at the universities, they could participate in scientific and literary activities. The enthusiasm and activities of professionals and amateurs stimulated science profoundly in the last decades of the eighteenth and the beginning of the nineteenth century. The network of academies and societies was supplemented by prestigious and vocational schools that were set up throughout Europe, across, of course, a wide variety in time and space (De Ridder-Symoens 1996b; Pedersen 1996).

As a consequence, the balance between knowledge and general education was changing. Universities in general no longer had a monopoly on the pursuit of knowledge, and on the transmission of the new science. However, universities retained the sole right to grant the degrees of bachelor, licentiate and doctor. Henceforth their role consisted more in disseminating the standard knowledge and, with a certain delay, the new scientific discoveries through teaching. Thanks to the printing press, students had access to textbooks. As clearly stated by Thomas Kuhn (1977, p. 228), handbooks were the essential way for students to acquire the substance of their fields and to get the essential tools they needed to become researchers themselves later on. In his essay, Kuhn emphasised the importance of tradition in science. Early Modern universities took that too literally. As a majority of the universities were not so keen on 'novelty', most of the teachers confronted their students with the new scientific discoveries only when they had become a new paradigm, to quote Thomas Kuhn (1962). We can affirm that the long seventeenth century really did witness an intense struggle between rival natural philosophies, and the call for liberation from hidebound orthodoxy runs right through the century. It culminated in the debate between Ancients (or classical authors) and Moderns (contemporary learning) and in Swift's Battle of the Books, which was won in science by the Moderns (Disselkamp 2010; Porter 1996).

The most forward centres of research were without doubt Northern Italian and Dutch universities. For instance, Padua remained in the late sixteenth and the seventeenth century an important centre for the study of law and medicine. Several professors at Padua enjoyed great fame as researchers, such as Vesalius (1514–1564) and Galileo Galilei (1564–1642). However, the best research universities have to be sought in the Dutch Republic, the present-day Kingdom of the Netherlands. Having fought for free thinking in religious, political and commercial matters, the academics in the newly created universities militated for the same freedom of thought and actions. And they succeeded, with the University of Leiden taking the lead. They integrated the new Copernican heliocentric worldview, the philosophy of René Descartes (1596–1650) and the results of the scientific revolution of the long seventeenth century rather quickly into their teaching (Frijhoff 2010, pp. 168–176). Elsewhere it would be decades before the scientific discoveries of the sixteenth and seventeenth centuries became part of the curriculum. Therefore, in the seventeenth century the Dutch universities had the most international student body in the whole of Europe. Leiden's most famous professor was Herman Boerhaave (1668–1738), whose students improved medical teaching and learning all over Europe (Lindeboom 1968, 1970). The universities of Oxford and Cambridge at that time were average

socialising institutions. Research was by and large only done in the Royal Society of London. As always, there were a few exceptions, such as Isaac Newton (1643–1727) who taught at Cambridge (Feingold 1991).

But, according to Roy Porter, if the universities were not oases of science, neither were they utter deserts (Porter 1996, p. 533).

Political, Social and Cultural Concerns

In the Early Modern Period – roughly speaking between 1500 and 1800 – the main task of the university nevertheless became a social one. As I have already mentioned, the ecclesiastical and secular high-level positions requiring a university degree were, at the end of the Ancien Régime, almost exclusively destined for a limited social elite, whose members were linked by family bonds. In the prestigious or less prestigious universities, the future elites were socialised and indoctrinated in the political, social and moral norms and values in effect. Universities were also important elements in the establishment of political, social and scientific networks.

As must have become clear from what I have already said, the scientific function of the university was inversely proportional to its social role. But there was more going on. In the period of Humanism and the Renaissance, the Church lost its universality and was split up into many confessions and religious beliefs. In this confessionalisation process, the Church and the State jointly looked for support from the universities. One would expect from the professors that they produced or at least spread orthodox knowledge and legitimated the aspirations of sovereigns and of the Church. Besides, the faculties of theology also had to play the role of censor as related to thinking and morals (De Ridder-Symoens 2000; Hurtubise 2005; Marga 2006).

Universities were also called on for defining the cultural identity of the nation. They sometimes played a major role in movements of national revival. Jubilees and other kinds of celebrations were the most welcome tools to sustain these activities. Very good examples in this regard were Finland, Iceland, the Baltic States and Flanders, where scholars in the second half of the nineteenth century played an important role in 'inventing' traditions of a national identity (Dhondt 2014; Dhondt and Boran 2017).

Politicians and academic authorities, nevertheless, did not wait until the nineteenth century to involve scholars and students in inventing, defining and propagating political and cultural identity. It was part of the strategies used in early modern state formation, which started in the fourteenth century. This is one of the reasons that universities became nationalised. But even in periods when universities were more internationally oriented, their members were aware of their 'national' identity, whatever that might have been.

Student nations were an important element in defining the cultural identity of the students living abroad. From the thirteenth century onwards, students in a foreign, sometimes hostile city formed associations whose members spoke the same

language or shared the same tastes and values. As a group they could look after themselves better and cope more easily with the difficulties of a long stay abroad. They hired houses in common, met at church or at an inn to celebrate their national and patron saints' days, and organized postal services between the university city and their homeland so as to keep in touch with their family and receive from them money, letters, and parcels. These de facto associations quickly became publicly recognised corporations under the name of 'nations'. The nation to which students belonged depended primarily on their mother-tongue, and secondarily on their birthplace, cultural community, or shared history. Universities such as those of Bologna and Padua, which took in a steady stream of students from elsewhere, could follow this practice fairly strictly and form more than a dozen ultramontane and cismontane nations covering most European regions or provinces. Paris and its imitators (Prague, Leipzig, Vienna, and Louvain) had only four nations, whose catchment area was somewhat fanciful or highly inconsistent. Everywhere the German nation was one of the most important and well-attended nations (Kibre 1948).

The nations were important institutional associations within the university. In North-Italian universities the nations consisted solely of students. They provided the *rector magnificus* and fought for student rights. In other universities, such as Orléans, the proctors of the nations were members of the representative bodies with the same rights as the professors. But even in institutions dominated by the professors, such as Paris and those following the Parisian pattern, the students claimed a say in university matters. To defend their interests, students held powerful weapons, such as an extensive arsenal of privileges, and of course rebellion (Dhondt and Boran 2017). In the course of the seventeenth century, nations lost most of their functions and power due to the fact that almost all universities in Europe had become national, and even regional universities came under state and/or church control. The student nations died out or became solely regional entertainment clubs.

Financing Universities and Research

Nowadays, it is unthinkable to speak of modern universities and research without paying special attention to questions of financing. When working on the pre-modern *History of the University in Europe* in the 1980s and 1990s, we discovered that the rather disparate literature available on this subject afforded a mere impression of the real state of affairs. The lack of data could be attributed not only to the limited expansion of a university financial system and to a shortage of sources, but also to a lack of interest among university historians 'tout court' (Gieysztor 1992, pp. 133–136; De Ridder-Symoens 1996a, pp. 183–190). Happily, in recent decades more attention has been paid to the financing of higher education, and the proceedings of two conferences dedicated to the topic have yielded precious new information on the subject (Schwinges 2005; Hiraux and Mirguet 2012).

Studying the funding of the pre-modern university requires that a distinction be made between the means intended for individuals and those for the institutions.

Until 1800, the bulk of the budget went to persons, approximately 80% in the early modern period (Verger 2005).

We can be brief about the funding of individuals. Every person who was enrolled in the university was a *suppositus* and enjoyed all the privileges a university institution disposed of. The membership was very diverse, consisting, of course, of the professors and students, in their various capacities. In addition, there was a very limited group of administrative staff, the beadles and the messengers and everyone who provided services at the university, such as medical doctors, lawyers, civil servants and artisans, especially in the field of book production and trade, *doctores* (PhDs) who did not teach and former students who still provided services to the institution.

For our discussion, we only need to pay attention to the professors. Generally, it can be said that in the Middle Ages, professors did not receive a fixed salary but were paid by third parties (students, church benefices, own means, a secondary occupation, etc.). Only from the fifteenth century onwards did teachers start to be structurally paid by urban, regional and national governments. In this, European countries followed the Italian example. From the sixteenth century onwards, royal chairs were established for new courses the princes deemed necessary. Because of the greater impact of external powers, the number of chairs was fixed and the supervision of professors on their teaching tasks increased. For the funding of their research, the teachers were still dependent on their personal income, and on structural or occasional patronage.

As far as institutions were concerned the financial resources were minimal, especially in the Middle Ages. The different corporations within the university (the central administration, faculties, colleges, nations) had their own budgets and financial administration. Medieval bookkeeping was primitive, and finance was kept to a minimum, as was the material infrastructure. In the early modern period, there was a growing increase in the number of university and college buildings. Because of the societal importance of medical training, there was a larger investment in this sector, especially by city fathers (Porter 1996, p. 559). Funds were made available for libraries, botanical gardens, anatomical theatres, laboratories, planetariums, natural history collections, etc., which mainly served to elevate teaching to a higher level. Financial resources and needs became more and more important as time went on. This stimulated the universities to devote more attention to their bookkeeping, looking to the elaborated model of the Jesuit universities (Müller 2005).

Nevertheless, we can wonder how much organized scientific endeavour the university did stimulate. As it is obvious from the contrast with the late nineteenth- or twentieth-century university, blessed with research grants, research students and government contracts, the early modern university did not, as an institution, habitually foster collective scientific investigation. But it did frequently serve as a precious forum for the meeting of minds – students, professors, visitors (Porter 1996, p. 547).

Decentralisation or Concentration?

The demands for the decentralisation of the university landscape at the regional level in the 1960s and 1970s and the current counterbalance, suggesting a concentration of university education to only one or a few fully-fledged and well-financed universities, are not new.

As mentioned, from the fifteenth century onwards, there was an endeavour by every sovereign or prince to establish a university in his territory to guarantee the adequate education of loyal officials, schoolmasters, pastors and physicians. That was the major aim of these regional or territorial foundations. From the late seventeenth century onwards, when many universities led a meagre existence as a result of the reduction in the number of students and the ensuing shortage of resources, substantive adjustments in organization and content were necessary. The call for only one or a few high-quality universities was generally perceived as a rational and effective solution.

The Northern Netherlandish universities were confronted with this question when, at the end of the eighteenth century, regional sovereignty was abandoned in favour of a centralised unitary state. The discussion about the survival of the University of Groningen (founded in 1614) is exemplary for the discourses on this matter circulating in Europe, as this has recently been analysed by Klaas van Berkel in his history of Groningen University (Van Berkel 2014, pp. 380–388). Crucial in the Groningen discussion were the expected goals and the mission of higher education in the Batavian Republic. In early 1795, intervention by French revolutionary forces led to the downfall of the Dutch state, which was in fact already a client state of France (Israel 1995).[5] The new Batavian Republic enjoyed widespread support from the Dutch population and was the product of a genuine popular revolution. The first written Dutch constitution was designed in 1796–1797 and adopted in 1798; it had a genuinely democratic character (Schama 1977, pp. 250–277). Article 755 of the draft constitution states this explicitly:

> To promote the teaching of skills, which are indispensable for the free citizen in arts and sciences, and in everything that can serve to clarify the mind, civilise the taste and ennoble the heart, there will be primary schools, [secondary] language schools, academies, and one national high school or university.

By concentrating university education in one place, one could cut costs and create an institution that could be measured against the major universities abroad. That was in the interests of science, student youth and the treasury. In addition, the Commission proposed to create three academies, to be responsible for the training of surgeons and accoucheurs. These professional schools would be subject to central authority and without doctoral graduation rights (*jus promovendi*) (Van Berkel

[5] The Batavian Republic (*Bataafse Republiek*) was the successor of the Republic of the Seven United Netherlands that collapsed in 1795 because of the intervention of French Revolutionary forces. It ended in 1806, with the accession of Napoleon's brother, Louis Bonaparte, to the throne of Holland.

2014, pp. 385–387). The deputies of the National Assembly did not follow the proposals of the Commission for the Constitution; they voted down the bill in matters of higher education. Everything remained the same until Napoleon, following the French example, abolished all Dutch universities in 1811.

Conclusions

A continuous tension can be perceived between knowledge, education and social needs. Finding a balance between continuity and change and between teaching and research, these have been the great challenges universities have encountered throughout their long history.[6]

In the Middle Ages, the mission of the university was clear: transmission of knowledge, formation of university teachers and the explanation of the truth. Fundamental innovative research was almost exclusively done within the framework of a university and within the conceptual frameworks of Christian doctrine, Aristotle and other authoritative textbooks.

The humanist intellectuals sought solutions to these constraints. They were very creative in looking for alternatives. They advocated for a profound secularisation and broadening of intellectual life, and they broke the research monopoly of the university by creating alternative institutions, forms and methods that paved the way for innovations in almost all the disciplines. An international network of academics, professionals and amateurs, called the Republic of Letters, took the lead. Through the interaction of various factors, scientific interest shifted from the humanities to the natural sciences, and scientific tools were adapted accordingly. This generated a scientific revolution in the long seventeenth century (Van Dixhoorn and Sutch 2008).

During the Enlightenment, governments became actively involved in the reorganization of higher education, making it directly useful for the needs of the new enlightened society. The universities had to participate in the search for innovations in a booming economic society with new religious, moral and political codes. The reaction against this kind of usefulness came from the Humboldtian concept of a university where academic freedom, values-oriented personality formation and the compulsory link between teaching and research were essential. It was a fertile ground for scientific breakthroughs in multiple fields of knowledge. The present knowledge society, however, asks universities to serve the knowledge economy and to find solutions for the social and geo-political problems of the times. The magic word to fulfil these ambitions worldwide is the catchall ‘innovation’.

It is clear that, because of their corporate structure, universities were and still are *in se* conservative institutions. At the same time, they have shown enough flexibility and capacity to adjust and to survive many depressions and crises. They have been able to adjust to the requirements in teaching and research of a constantly changing

[6] See the historiographical essay of Lux (1991) about continuity and change.

society and of sometimes volatile governors. A consequence of this flexibility is the always-changing place that 'mission and goals' have occupied in academia.

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Chapter 5
Humboldt's University: The History and Topicality of a German Tradition

Johan Östling

Introduction

All attempts to reform a cultural or social institution rest on a set of ideas about the mission and function of that institution. This is especially true of research and higher education. As has been emphasised by Björn Wittrock (1993), the idea of the university cannot be seen as "a free-floating abstraction but a guiding conception, rooted in the experiences, traditions, and life-worlds of individuals". Since the Enlightenment, these ideals have been tested and retested as society has changed. However, none of the major university reforms can be seen solely as a response to the emergence of modernity: "They occurred because leaders, thinkers, scholars, and scientists continually questioned the basic nature and meaning of higher learning", argues Wittrock (1993, p. 347).

One of the most important of these 'guiding conceptions', at least today, is the one associated with Wilhelm von Humboldt (1767–1835). This is true not only in Germany but also in the many countries that have been influenced by the German academic model. In the twenty-first century, the main features of the Humboldtian university programme are often summarised through a set of concepts or slogans: the combination of research and teaching; academic freedom (often expressed as *Lehr-* and *Lernfreiheit*); education rather than training; the idea of the unity of science and scholarship; and the community of students and teachers. Coupled to these academic ideals is a historiography in which the University of Berlin emerges as the first modern research university, an institution that was to provide the model for how research and higher education would be conducted both in and outside Germany (Paletschek 2012).

What is customarily presented as an unbroken line of ideas – the Humboldtian tradition – is, however, a much more complex affair. Recent research has

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problematised both its origins and its development. This chapter will discuss this scholarship and outline the history of the modern German university and the topicality of Humboldt's ideas.[1]

A New German University

In many depictions of the German eighteenth century, the university is in a state of decay. The eighteenth-century university was intellectually dormant, it was constrained by nepotism and class privileges, and it provided an education that was scholastic and pedantic, at best encyclopaedic (Josephson et al. 2014). During the second half of the century, increasingly vociferous demands were raised for genuine reform. A growing opinion demanded that teaching should be reorganised and aimed at meeting the needs of the professions rather than dispensing old learning. Changing the university was, however, a slow and drawn-out process, and instead a number of special schools were established in order to fulfil the requirements of the new age. It was at these educational establishments, as well as at the science academies, that most of the research was to be conducted. Towards the end of the eighteenth century, the university as an institution was thus not held in great repute. Along with the church, the university, with its mediaeval character and religious overtones, became the symbol of *l'ancien régime* (Hammerstein 1996).

More recently researchers have, from different perspectives, tested this idea about the eighteenth century – and ultimately relativised the significance of the establishment of the University of Berlin and the year 1810 as an academic *annus mirabilis*. Some of them have claimed that the enlightened rulers of the time were well aware of the stagnation and launched reforms in order to revitalise higher education (Anderson 2004). Others have promoted the idea that the creation of the modern university must be understood as a stage in the development of the bureaucratic state. For instance, in an innovative work, William Clark has argued that the growing state administration tried to limit the old academic freedom and increase political control (Clark 2006). At the same time, he claims – as do others – that the rise of the modern university must be seen in relation to an emergent book market and changes in the public sphere. Books became more easily accessible, more and more people began to take up their pens in order to express their opinions, and literacy increased significantly. All this led to professors being exposed to competition as authorities of knowledge (Josephson 2014).

What connects Clark to other scholars is his emphasis on the fact that a new and supporting foundation for the modern university had already been laid down during the eighteenth century. There is much to recommend these interpretations. At the same time, it is difficult to deny that the upheavals in European societies in the

[1] This chapter is based on Östling (2018), and to some extent also on Östling (2015) and Östling (2016).

decades around the year 1800 – the Enlightenment, the French Revolution and all that followed – had a profound effect on the academic system. In hindsight, it seems as if two new main academic models, French and Prussian, emerged in the wake of the Napoleonic Wars. In many parts of Europe, not least in the north, south, and in the British Isles, much would long remain as before; but in two large areas of the continent, things developed in a different direction (Charle 2004; Rüegg 2004). In France, the autonomy of the universities was completely circumscribed, and they were subordinated to the power of the political regime. *Collèges* and traditional faculties were replaced by a series of professional and special schools. Nevertheless, some older institutions, such as *Collège de France*, survived both the Revolution and Napoleon; and it was here, as at other educational establishments with a distinct profile, that much of French research was conducted. The overall result of these upheavals was that the academic reality in France during the nineteenth century came to be characterised by specialisation and fragmentation (Charle 2004; Rüegg 2004).

In Prussia, by contrast, the university as an idea and an institution was headed for a renaissance. Even in the eighteenth century, new elements had been incorporated into the academic activities at several German universities, in particular at Enlightenment, Göttingen and Halle. One such element that was particularly important was the requirement that professors should devote themselves to research and not just teach. Another was that lectures had to be complemented by seminars, a forum for scholarly discussion that included both students and teachers who were doing research (Turner 1974). In the medieval university, the philosophical faculty was the lowest in rank. By the end of the eighteenth century, increasing numbers of people had begun to question this old but still existing order. Immanuel Kant, Johann Gottlieb Fichte, and Friedrich Schleiermacher all argued that the philosophical faculty should be placed on a par with, and even be given precedence over, the other three.

Therefore, the conclusion must be that much of what blossomed during the nineteenth century and became characteristic of the German university had been heralded earlier. Several minor reforms had been realised, and the debate about academic ideals was in full swing during the final years of the eighteenth century. Nevertheless, the emergence and establishment of a distinct Prussian university model must be linked to the major events from the period around the year 1800.

The French Revolutionary Wars and the Napoleonic Wars shaped an entire generation in the German regions. Not all areas were hit equally hard by French warfare and occupation, but in Prussia the humiliating setbacks – the defeats at Jena and Auerstedt, the siege of Berlin – gave rise to a strong and lasting reaction. Out of the resistance to the superior French forces grew an aversion to Enlightenment cosmopolitanism itself. This experience kindled a patriotic awakening, an incipient German nationalism with Prussian overtones. At the same time, the defeats occasioned a self-examination that paved the way for a reform of important social institutions, a reform eagerly anticipated by many people. In contrast to Revolutionary France, the changes were gradual. In the wake of the Napoleonic Wars significant reforms were undertaken, among them the liberation of the peasants from serfdom,

the emancipation of the Jews, freedom of trade, and compulsory military service, which were crucial for transforming Prussia from a feudal into a modern industrial state (Nipperdey 1983; Wehler 1987).

It is impossible to separate the founding of the University of Berlin in 1810 from this political and social context (Tenorth 2012). In 1789, there were thirty-five universities in the German region, and almost half of whose students were registered at the big four (Halle, Göttingen, Jena, and Leipzig). A quarter of a century later, only sixteen universities remained; the others had been shut down or been forced to close in the aftermath of war and invasion. In addition, in 1807 Prussia lost its erstwhile academic flagship when the university in Halle became a part of the Napoleon-created kingdom of Westphalia. According to the King's oft-quoted words, the state now had to replace the physical losses through spiritual strength: "*der Staat muss durch geistige Kräfte ersetzen, was er an physischen verloren hat*" (Östling 2018 p. 28). Even so, one cannot ignore the fact that the transformation of the Prussian educational system was not only an important stage in a general reform effort, but also a concrete attempt to launch an alternative to the Napoleonic special schools. The fact that two other universities, both bearing the epithet Friedrich-Wilhelms-Universität, were established in Prussia at the same time, in Breslau in 1811 and in Bonn in 1818, does not weaken this impression (McClelland 1980).

The University of Berlin was not, of course, created in an intellectual vacuum. Since the end of the eighteenth century, the idea of the university had been discussed in a good number of publications and debates. Jena in Thuringia was one important centre for this exchange of opinions. During one period, in particular during the 1790s, the city counted many of the most prominent thinkers among its professors, among them Friedrich Schiller, Johann Gottlieb Fichte, Friedrich von Schelling, and August Wilhelm Schlegel. Even more important for the creative atmosphere was the steady stream of authors, artists, and philosophers who came to Jena during these years for brief or extended stays. This environment inspired ideas about a new kind of educational establishment, an institution, which has been called 'the romantic university', with *Bildung*, academic freedom, and the collective research process as its corner stones (Karlsohn 2012).

There are scholars who have claimed that the University of Berlin was an 'institutionalisation of the ideal of Jena' (Ziolkowski 1990, p. 286). To some extent, it can be seen that way, but the new university that took shape also had its own specific prehistory. As early as 1784, a suggestion had been made to establish a university in Berlin. During the first years of the nineteenth century, many of the ideas that had been current in Jena were developed further, and, in their writings, men like Schelling, Fichte, Schleiermacher, and Steffens laid an intellectual foundation for a new university, guided by ideals of *Bildung* and pure scholarship (Anrich 1960).

In one of these publications, Schleiermacher also asked a very concrete question: "But why in Berlin of all places?" He believed that other Prussian locations would find it easier to attract students and teachers than the expensive and comparatively peripheral capital, but he also saw obvious advantages in Berlin. It already had large libraries, an observatory, zoological and anatomical cabinets, and other facilities that could be of use to the new university. The same was true of the many special

schools that had been erected on the banks of and near the River Spree (vom Bruch 2001).

The following year, in July 1809, the Prussian King Frederick William III received an official letter with a similar content. In it, the author argued that a general institution of higher education should be established. The official letter bore the signature Wilhelm von Humboldt. He was at this time head of the section for educational and cultural issues in the Prussian Ministry of the Interior, but he had had time to do many other things before this (vom Bruch 2001).

Wilhelm von Humboldt and His Ideas

Wilhelm von Humboldt was born in Potsdam on 22 June 1767. Together with his brother Alexander, two years younger and destined to become famous as a natural scientist and explorer, Wilhelm von Humboldt had been given a thorough education, which was typical for the nobility of his time. For one year, 1787, he was registered at the university in Frankfurt an der Oder, but he soon moved to the more dynamic one in Göttingen, where the combination of *Bildung* and Enlightenment made a lasting impression on him. After studying for four terms, he went on a peregrination in Western Europe, before entering into the service of the Prussian government in 1790. But after only a year or so he left his post, intending to wholeheartedly devote himself to study and writing. For a few fruitful years, 1794–1797, he lived in Jena and was able to cultivate his philosophical and philological interests in the company of Schiller, Fichte, and the Schlegel brothers. Following a lengthy sojourn in Romance Europe and a brief interlude in Berlin, Humboldt functioned as a Prussian diplomat at the Holy See in 1802–1808. However, he was recalled to the Prussian capital. During sixteen productive months, from February 1809 to June 1810, he would leave a deep impression on the educational system (Scurla 1970; Sweet 1978–1980).

Humboldt's efforts were initially focused on breathing life into and reforming the Prussian school system. His pedagogic vision encompassed all educational stages, from elementary school through the *Gymnasium* to the university. In the summer of 1809, he therefore sent the above-mentioned official letter to Frederick William III about establishing a new university in Berlin. In August of the same year, the King approved the proposal. It was over a year before teaching and research could commence in October 1810 at the *alma mater berolinensis*. Operations began on a small scale – 262 students and 25 professors during the first term – and there were no statutes to speak of until six years later (Tenorth 2012).

Nevertheless, the new university soon won academic renown, largely owing to the fact that Humboldt managed to persuade so many truly prominent scholars to accept important professorial chairs. Fichte became the first holder of the key professorship in philosophy (and, in addition, the Vice-Chancellor of the university for a brief period) and was succeeded in 1818 by Hegel. A number of significant scholarly environments evolved over the years, for instance, around the historian Leopold

von Ranke and the physiologist Johannes Müller. By that time, Wilhelm von Humboldt had long ago left his position in the Prussian ministry of the interior (Tenorth 2012).

Wilhelm von Humboldt, the ideologue of the university, was not a rebel against the trends of his time. He was a skilled synthesist who became successful by systematically combining thoughts that were in circulation and finding pregnant expressions for his own ideas. During his brief time in Berlin in 1809–1810 he converted his words into action. Perhaps it can be said that Humboldt managed to turn a reform against the university into a reform of the university.

Like no other concept, that of *Bildung* has been linked to Wilhelm von Humboldt – justly so, for it was key to his educational philosophy. At the same time, the word *Bildung* itself has a long history in the German language. Its meaning has gradually expanded in the course of the centuries, and in the eighteenth century it was increasingly given the meaning of 'to form' or 'to shape'. It was in the decades surrounding the year 1800 that the word had a real impact on the debate of ideas and in the consciousness of the emerging educated middle classes (*Bildungsbürgertum*). Even if it appeared in various guises, their common sustenance was the specific combination of German New Humanism, Enlightenment thought, and idealism that characterised the intellectual climate in German-speaking Europe at that time. It is significant that *Bildung* lacks a direct equivalent in other major languages. Translations such as *éducation*, *formation* or *self-cultivation* do not quite capture the German meaning (Vierhaus 1972; Lichtenstein 1971; Koselleck 1990).

As a pedagogical idea, the German *Bildung* is related to concepts that are significantly older. It can be traced back to the Greek *paideia*, an early programme for a comprehensive development of human spiritual, aesthetic, and physical abilities with the aim of moulding a complete and harmonious citizen. The concept of *Bildung* that emerged during the eighteenth century was, in addition, inspired by a late medieval reinterpretation of the old Christian idea that human beings should strive to become an image of God, *imago Dei*. Traces of this way of thinking can be found, for instance, in the works of an influential educational theorist such as Johann Gottfried von Herder. He was one of the first to design a somewhat more coherent pedagogic vision with *Bildung* as its lodestar, where the overarching purpose was to develop the capacities of the individual and break with an ideal that rewarded rote learning of a closed curriculum. Many of the great figures of the day – Johann Wolfgang von Goethe, Friedrich von Schiller, Johann Heinrich Pestalozzi, Immanuel Kant – referred to Herder and contributed to the late eighteenth and early nineteenth century dynamic discussion about *Bildung* (Koselleck 1990).

Nevertheless, it was not until the actions of Wilhelm von Humboldt that the concept of *Bildung* was truly integrated into an educational programme and given institutional stability. To Humboldt and his contemporaries, *Bildung* had to do with the highest and most harmonious development of natural human abilities. His theoretical expositions on the concept of *Bildung* demonstrated a kind of duality in his thought. On the one hand, he described an educational process in which the unrestricted improvement of each person's personality was at the centre. Humboldt's *Bildung* was based on a subjective acquisition of knowledge that had its origins in

and transformed the individual. On the other hand, an individual's development was always considered in relation to history and to the truly human. The realisation of that individual's inner potential took place in a dialectical movement between the self and the surrounding culture (von Humboldt 1960).

Humboldt was as much a practically disposed as a theoretically orientated man, and his idea about *Bildung* emerges most concretely in the proposals, memoranda, and drafts that he wrote during his years as a Prussian minister. In various documents from 1809, he outlined an educational system that would provide its pupils with what he called *Menschenbildung*. Pupils would orientate themselves towards the truly human, towards the major intellectual abilities. Humboldt emphasised the importance of wide-ranging studies in languages, history, and mathematics; but the classical subjects, primarily Greek, held an obvious special position for him (von Humboldt 1964a; von Humboldt 1964b).

In other words, the idea of *Bildung* held a central position in Humboldt's educational philosophy, and this ideal was also thoroughly foundational to his idea of the university. His academic vision emerges most clearly in "Über die innere und äussere Organisation der höheren wissenschaftlichen Anstalten in Berlin". In this short, unfinished manifesto, written at the end of 1809 or in 1810, many of the basic ideas that later came to be invoked in the Humboldtian tradition can be found (von Humboldt 1964c).[2]

Next to *Bildung*, the idea of science and scholarship (*Wissenschaft*) was a cornerstone in Humboldt's conception of the university. In his manifesto from 1809–1810, there was an obvious connection between them: Humboldt maintains that the university should be a place where science and scholarship in their most profound, extensive, and pure sense have their abode. He emphasises that since "these institutions can only fulfil their purpose when each of them bears continuously in mind the pure idea of science and scholarship, their dominant principles must be freedom and the absence of distraction (*Einsamkeit*)" (von Humboldt 1970, p. 243).[3] In contrast to schools, which provide fixed and finished knowledge, science/scholarship should be seen as "an as yet unsolved problem which always calls for further research". The university stands or falls based on how well it safeguards the principle that science/scholarship should be seen as – to use a key formulation – "something not yet achieved and as something that cannot ever be completely achieved". Humboldt is faithful to his idea of *Bildung* when he emphasises that it is only the science/scholarship that originates within people that can shape character, and that it has to be the goal of both the state and humanity to produce character and action, not "superficial knowledge and empty talk". In order to achieve this, everything must originate in an ideal, and all types of one-sidedness must be opposed (von Humboldt 1970, pp. 244–245).

[2] I henceforth quote from Humboldt (1970), but with some modifications. For a more detailed discussion on translation, see Östling (2018).

[3] *Einsamkeit* is in this context normally translated as 'solitude' and not 'the absence of distraction', and I follow this practice.

Humboldt also develops ideas about academic freedom. The state must not treat its universities as *Gymnasien* or special schools, and it must not use them as storerooms of useful experts. On the contrary, the state must not demand anything from the academy that directly involves the state itself. Instead, writes Humboldt, "[the state] should […] adhere to a deep conviction that if the universities achieve their purpose, they will realise the purpose of the state as well, and on a far higher plane". The main duty of the state becomes to ensure that its schools serve the higher scholarly institutions. If these schools are established and managed in an ideal way, their pupils will carry a desire within them to devote themselves to scholarship (von Humboldt 1970, pp. 246–247).

Humboldt's high valuation of academic freedom was thus closely connected to his general ideals of *Bildung* and education. At the same time, academic freedom is a multifaceted concept. In his text Humboldt also discusses the issue of the external organisation of the university, especially how academic posts should be filled. He argues for the idea that it should not be the faculties or the scholarly representatives who should make these decisions. Instead, it is the state that should possess this power, for two reasons: the faculties cannot be expected to make a fair assessment of the candidates; and – more importantly – the interests of the state and the university are so intimately connected that the state has to have discretionary power when it comes to appointing professors (von Humboldt 1970, p. 249).

Towards the end of his text from 1809–1810, Humboldt polemised against the idea that the university should focus on teaching and that research should only be conducted at special academies. The process of science and scholarship is doubtlessly more rapid and lively at the university, he wrote, "where their problems are discussed back and forth by a large number of forceful, vigorous, and youthful intelligences". If science and scholarship are not regarded as being changeable, they are not worthy of those designations (von Humboldt 1970, pp. 247–248).

In today's research, many people emphasise Humboldt's unfinished fragment from 1809–1810 as a key document for understanding his idea of the university. From this and a couple of other writings from the same period, the academic principles that have come to be associated with Humboldt can be deduced: academic freedom; the combination of teaching and research; the sense of community between teachers and students; science and scholarship as *Bildung*. However, the Humboldtian tradition is much richer and more nebulous; it cannot be captured in a couple of points. Its transformation during the two centuries that have passed reflects the turbulent history of Germany.

Humboldt's Nineteenth Century

Wilhelm von Humboldt died on 8 April 1835. During the twenty-five years that had passed since he left his position as the person responsible for education in the Prussian ministry, he had devoted himself to diplomacy and linguistics. Initially he had been an emissary in Vienna and had helped shape the new order of Europe after

the defeat of Napoleon. At the end of the 1810s he had retired, settled in Tegel, and dedicated much of the remainder of his life to extensive linguistic studies (Scurla 1970; Sweet 1978–1980).

The development of the University of Berlin after Humboldt's death has been assessed in various ways. Some narratives about the period from the second quarter of the nineteenth century and forward are characterised by decline and decay. They differ in emphasis, but what they have in common is an interest in how an academic vision, sprung from revolutionary or even utopian dreams, hardened into conservative ideology and Prussian ideas about the national state. These historiographies feature variations on the theme of a slow farewell to the original ideals (Ringer 2000; Haase 2012).

Other scholars construct a more complex balance sheet. In the new history of the university at Unter den Linden, two of the main authors, Heinz-Elmar Tenorth and Charles E. McClelland, offer a comprehensive assessment. Tenorth (2012) asserts that Wilhelm von Humboldt played a crucial part in the foundation of the new university, but not in the sense that he formulated a set of philosophical principles that then permeated all official actions and institutional arrangements. Instead, Tenorth emphasises the fact that Humboldt initiated the political-administrative process and reconciled conflicting interests. His idea of the momentous importance of research had a real impact, but this was because new features of academic practice (which had gradually taken shape during the eighteenth century) were given an institutional basis. Those features were, primarily, that publication of new scholarly/scientific knowledge was rewarded; that an infrastructure in the form of seminars and laboratories was seen as indispensable; that professors developed a professional identity; and that recruitment to academic posts was based on scholarly/scientific merits. All this contributed to making the research imperative a reality, according to Tenorth.

McClelland (2012) for his part maintains that the conditions in which the University of Berlin operated were completely different at the beginning in comparison to the end of the nineteenth century. The university was born from a defeat, and for a long time it had only a few students. To the extent that an ideal regarding the combination of research and education became a reality during its first phase, this had more to do with pragmatic necessity than with ideological principles. From the 1870s onward, the university went through rapid expansion, and its reputation grew; at the same time, conditions, with respect to both society and science/scholarship, changed during the time leading up to the First World War. McClelland therefore cautions against a simplified historiography, irrespective of whether this takes the form of success stories or narratives of decline (see also McClelland 2016).

It is possible, however, to apply a completely different perspective to the legacy from Humboldt. In this perspective, the actual university on Unter den Linden and its development during the nineteenth century are not placed at the centre. Instead, it is the symbolism and the formation of myths that surround Humboldt – what in German has come to be called the *Mythos Humboldt* – that form the essential factor.

The central proposition of this research about Humboldt is that he was never a point of reference in the German nineteenth-century discussion about the university: his fame did not come until later. The scholar who has most persistently

championed the idea of Humboldt's absence is Sylvia Paletschek (2001a, b, 2002), but she has been supported by historians such as Mitchell G. Ash (1997), Rüdiger vom Bruch (1997), Dieter Langewiesche (2010), and Marc Schalenberg (2002). According to Paletschek, Humboldt's programmatic texts remained unknown or even unpublished. Presentations of the history of the university contained references to writings by Schleiermacher, Fichte, and Steffens, works written at the time of the foundation of the University of Berlin. Other people too, famous in their own time but since forgotten, featured in depictions of the early nineteenth-century university. Wilhelm von Humboldt's name was rarely, if ever, mentioned.

According to this line of research, the University of Berlin was by no means a beacon in the academic archipelago of the time. Friedrich-Wilhelms-Universität, as it was renamed in 1828, was one university among others. Nothing in its statutes revealed that a new kind of university had seen the light of day. Although many people had eagerly supported another order, the faculty hierarchy remained the same as before: theology, law, medicine, and finally philosophy. Even when it came to its administrative structure, its forms of examination, and the subjects of its professorships, the university in Berlin did not differ significantly from other universities in the German region (Paletschek 2001b).

Nor did the University of Berlin function as an exemplary model in nineteenth-century intellectual discussions. In handbooks, encyclopaedias, and surveys, German New Humanist ideas and Prussian university reform were not presented as turning points in the historical development. In none of these contexts was the creation of the University of Berlin given a paradigmatic significance. It was mentioned in passing (Paletschek 2001b).

Throughout the nineteenth century, a debate continued about the German university. Judging from the number of publications, it was at its most intense during the 1830s and 1840s, although a good deal was also published on this topic around the year 1800 and during the last decades of the century. Occasionally the German New Humanist university tracts from the early 1800s were referred to; but the focal points of the debate were often concrete problems concerning examinations, forms of study, and the working conditions of the teachers (Paletschek 2001b). In all essentials, the old hierarchy endured. It was not until towards the end of the nineteenth and the beginning of the twentieth century that the research mission came to the forefront (Paletschek 2001b).

Consequently, it is impossible to speak of a Berlinesque or a Humboldtian model in the German academic debate during the nineteenth century. It is true that the University of Berlin is sometimes mentioned as a young and dynamic university. On the other hand, it did not have any immediate effect on the development of the German university system. The ideals that had been formulated by Wilhelm von Humboldt did not provide fruitful input in the discussion about the university.

Along with the *Gymnasium*, the military system, and classical music, it was claimed that the university was the major successful German export during the era of the German Empire. As the nineteenth turned into the twentieth century, university systems were reformed in line with the German pattern in parts of Europe, North America, and East Asia. The process was lengthy and complex, however, and

it evinced many national variations; there was never a question of seamlessly transferring a German model to another culture (Schwinges 2001). In a major study, Marc Schalenberg (2002) has disproved all simple theories of diffusion. In France there were many people who were influenced by Germany, but they did not embrace an entire idea; rather, they turned towards their neighbouring country for arguments to use when promoting their own cause. In Britain people were, on the whole, markedly reserved with respect to German notions, and it took a long time before any effect worth mentioning could be observed there. Johns Hopkins University, founded in Baltimore in 1876, became the first American university that expressly endeavoured to unite academic education with scholarly/scientific research. During the final decades of the century, a number of researchers who had recently received their doctorates at Johns Hopkins began working at other distinguished American universities, thereby contributing to the circulation of the new ideas. It should be noted, however, that it was the German university that was the model. Wilhelm von Humboldt was not mentioned (Turner 2001; Geiger 1986).

The Discovery of Humboldt

Around 1900, however, something happened. In his work on a book about Humboldt, the historian Bruno Gebhardt made a weighty discovery in the very last year of the nineteenth century. In an archive, he found the above-mentioned unpublished memorandum "Über die innere und äussere Organisation der höheren wissenschaftlichen Anstalten in Berlin". All at once, Humboldt's short, unfinished treatise of 1809–1810 became central in the turn-of-the-century university debate (Östling 2018).

Humboldt's text was used not only to justify basic research in general. It proved equally useful for sanctioning the research university that only at the beginning of the twentieth century was fully developed in Germany. Humboldt bestowed on this type of knowledge institution a nearly century-long prior history. His rediscovered treatise, somewhat paradoxically, also provided arguments for those who sought to work for research institutes outside university, such as the Kaiser-Wilhelm-Gesellschaft, which was founded in 1911. When its first president, Adolf von Harnack, wanted to legitimate the new, independent research institutes, he cited Humboldt. He interpreted Humboldt's century-old programme as meaning that development of scholarship called for academies, universities and also relatively autonomous institutes – the latter appropriately in the form of Kaiser Wilhelm Institutes. These dedicated research establishments were intended to help assert Germany's academic status in the international competition. In this respect, they were successful, even after 1945, when they lived on under the name of Max Planck Institutes (Paletschek 2002).

The success narrative about the University of Berlin found its proudest expression when, in 1910, its centennial was celebrated. The philosopher Eduard Spranger was exceptionally important. In his fervent speeches and writings, Spranger consolidated the notion of Wilhelm von Humboldt as originator of the modern German

university. Better than anyone else, Humboldt had reconciled free scholarship with the state, creating a remarkable unity (Paletschek 2002).

In this wider perspective, the 'Humboldtian Renaissance' of the early twentieth century becomes merely part of a long discussion about the essence of the modern German university. With varying intensity, this discussion has continued ever since. In the changeable intellectual terrain of the Weimar Republic, Humboldt cropped up in many guises. For Carl Heinrich Becker, the education minister in the 1920s and an influential debater, the German university was *im Kern gesund*, but all the same, he eagerly propounded adjustment to a new democratic age. In the Third Reich, Humboldt was a hated figure, embodying a humanist tradition that was considered essential to overcome. Those who openly espoused his ideas, such as René König, were shown the door. As a signpost and intellectual reservoir, the Humboldtian tradition was and remained significant.[4]

The Postwar Period

By the time the war ended in 1945, many higher-education institutions had been reduced to rubble, numerous academics were ideologically compromised, and German scholarship was in a bottomless crisis. In these difficult circumstances, intellectual reflection on the idea of the university simultaneously began. One central question that engaged many of Germany's leading thinkers was how to revive the ravaged nation (Östling 2016).[5]

The single most important voice in the debate was that of the philosopher Karl Jaspers. In speeches, articles and the book *Die Idee der Universität* (1946), he discussed how to vitalise universities after the great disaster. In the Third Reich, married to a Jewess, he had been forced to leave his positions in academic management and become subject to a publication ban. After the war ended, Jaspers saw it as his task to restore the moral and intellectual honour of Germany. What this required was a historical balance sheet – a summary of the German nation's liabilities and assets. A genuine return therefore presupposed also making the most of what was good in, and could be built on, the German heritage. Here, the university played a crucial role.

Jaspers was convinced that the core of the German university was intact. Despite the Nazis' inroads into research and education, there were professors and students who had held out against them. Now it was time to reawaken the spirit of scholarship. This could happen only if the university once more became a hothouse of free research and teaching. In addition, it was crucial for the university to include all human activity and promote a broad concept of education (Jaspers 1946).

[4] For a more detailed account of the 1920s and 1930s, see Östling (2018).

[5] For a more detailed account of how the German universities engaged with the legacy of National Socialism and militarism in the wake of the Second World War, see Östling (2018).

Karl Jaspers was a typical exponent of a substantial proportion of German professors. These learned humanists with deep roots in the educational culture of their own country set the tone in the debate of the occupation years. In common with historians like Gerhard Ritter and philologists like Karl Vossler, Jaspers embraced a neo-humanist university ideal with origins around the year 1800. All these thinkers argued in favour of well-known academic principles, not infrequently citing Wilhelm von Humboldt and the University of Berlin. With war and dictatorship fresh in their memories, they emphasised the importance of academic freedom and the pure quest for knowledge (Östling 2016).

In the early 1960s, discussions about the university flared up again. It was an era when, in the West German academic community, pessimism was being superseded by trust. During the first decade after the war, it had been increasingly clear that the country's universities were inhibited by a rigid academic culture, and that there was a need for reform. Now a new generation took over. They adopted a stance on the emerging mass university's place in modern, democratic, industrial society, but also posed questions about freedom of research, the content of education, and the orientation of studies (Östling 2018).

Along with Ralf Dahrendorf and Jürgen Habermas, Helmut Schelsky had a powerful voice in this debate. A sociologist, he had come to the fore in the 1950s as a leading social scientist in the Federal Republic. In 1963, Schelsky published the most thorough postwar contribution to the discussion on the idea of the university: *Einsamkeit und Freiheit*. Schelsky, too, argued that Humboldt's ideas were still relevant. The University of Berlin had rested on two fundamental ideas: an intellectual one, expressed in the slogan *Bildung durch Wissenschaft* and a social one captured in the formula *Einsamkeit und Freiheit*. The former ideal contradicts the idea that the university should provide knowledge of practical use. Schelsky agreed with Humboldt that the primacy of research must prevail and that the function of university was never to mediate a series of dogmas. Instead, students should be inculcated with a basic normative attitude in life and trained to become intellectually independent. In the second set of principles, solitude and freedom, the basic social idea of the university found expression. By 'solitude', Schelsky meant that a measure of social isolation was necessary for good academic research and teaching. 'Freedom' entailed taking the side of knowledge with no set purpose in polemic against the notion of the university as a provider of academic vocational training (Schelsky 1963).

When Schelsky turned from history to contemplating his own day, he came up against difficulties. The classic ideal of education still lived on in memory, but in practice the university of the 1960s had abandoned the idea that it should shape a basic normative attitude, work for an association between research and teaching, and preserve the kind of academic freedom that preferred solitude. To Schelsky, it was clear that a veritable reform of university was needed. His proposed a more differentiated university – but one in which the various parts jointly formed the foundation of an academically based ideal of education. With this background, he proposed the setting-up of a new kind of university was required: the 'theoretical university'. Activities should be concentrated on the theories of the various

disciplines, and collaboration across subject boundaries should be rewarded (Schelsky 1963).

To Schelsky, Humboldt's view was an essential asset that nevertheless had to be constantly renewed and reinterpreted. Far from everyone agreed. To numerous socialist and liberal debaters of the 1960s, Humboldt was largely a dead weight and a hindrance to longed-for democratic reforms. But in shaping their idea of the university they, too, were unable to ignore the German academic heritage.

New Century, New Humboldt

The first decade of the twenty-first century was characterised by reforms and wide-ranging initiatives in Germany. After the reunification in 1990, a great deal of energy had been expended on incorporating the East German higher education institutions into the West German system. At the beginning of the new millennium, however, it was clear that the German universities had to be remoulded. The European Bologna process reshaped the old structure of education, and substantial funds were invested in cutting-edge research within the framework of the German *Exzellenzinitiative* (Östling 2018).

As so often happens when a university undergoes rapid internal transformation, a feud arose about the basic issues. When academics' life-world judders and changes shape, they respond in writing. In very many publications, the name of Wilhelm von Humboldt recurred time and again. The Prussian education reformer was, to many, a corrective to contemporary market adaptation and the cult of usefulness.

One of the most acclaimed books about university education published in recent years is Jochen Hörisch's *Die ungeliebte Universität* (2006), with the subtitle *Rettet die Alma Mater!* Hörisch's approach was broad, and his work took on the form of a general review of the academic world. The growing workload, the research application hysteria, the changed status of professors in society, the dictates and primacy of money – he covered all these aspects. In contrast to many other people's writings, however, Wilhelm von Humboldt was not invoked as a saviour. This did not prevent him from returning to the Humboldtian tradition. Hörisch thought something absolutely fundamental had been lost in the classic German research university: students and professors no longer love their alma mater. The strong emotional relationship with the university, the almost erotic desire that characterised academics in the past has disappeared. To revive this dormant love relationship, a new academic sense of community must be created.

Christoph Markschies, President of the Humboldt University of Berlin in 2006–2010, issued a collection of writings and speeches, *Was von Humboldt noch zu lernen ist* (Markschies 2010), ahead of the bicentennial. Markschies, a Protestant theologist, resolved the basic issue in the book – what may still be learnt from Humboldt – by proclaiming a number of theses. Refraining from empty, speechifying reverence for the monument that is Humboldt, he declared that we must read the original documents to see what he had to tell us. The early nineteenth century was

permeated by the all-inclusive dreams of romanticism. Markschies saw clear limitations in such notions, but simultaneously expressed a strong belief that present-day universities, too, can overcome dualistic ways of thinking and create an understanding that goes far beyond specialist studies or subject boundaries. To him, Humboldt was more or less an interlocutor, a provider of ideas whom one could revisit to discuss matters with and test one's ideas upon.

Humboldt's Topicality

Identifying highly time-bound interpretations of the German academic heritage is not difficult. Nor is it hard to see that some features were more prominent during certain periods than in others. It is also possible to see how the meaning of academic freedom, the content of *Bildung*, and the university's relationship to the state have varied. More generally, it is obvious that the university which Humboldt helped realise was an elitist, aristocratic institution – far from the egalitarian, democratic mass university that has developed during the post-Second World War era.

This being said, the vigorous strands of consistency must be emphasised. There are a limited number of fundamental ideals in the Humboldtian tradition that turned out to have a particular ability to survive and speak to various university cultures. These ideals have served as a model and a landmark in extremely dissimilar periods. I would like to believe that this is where the topicality of Humboldt can be found even today.

Firstly, the Humboldtian tradition has been used throughout the modern era in order to defend an acquisition of knowledge that goes beyond vocational programmes and instrumental usefulness. This happened at the turn of the century in 1800, 1900, and 2000, respectively. In our own time, which is at least as beset by utilitarianism as any other, it contains an understanding of how studies can promote civic and human development. The Anglo-Saxon liberal-arts tradition encompasses a related pedagogic vision, but that vision usually lacks any elaborate idea about the importance of research for the dynamics of knowledge.

Secondly, the Humboldtian model has often been used as a synonym for the modern research university. There is a very good reason for this: the free search for new knowledge has been a cornerstone from the very beginning. Science and scholarship should, in Humboldt's words, be regarded as dealing with "as yet unsolved problem[s] which always [call] for further research". When research is reduced to a set of great societal challenges, usually defined by policy-makers and bureaucrats, people need to be reminded of the importance of having the ability to formulate original questions and test bold hypotheses against reality. Otherwise, there is a danger that research in the true sense of the word will wither away.

Thirdly, the idea of the combination of research and education is closely linked to this notion of the significance of research. Underlying that principle is the conviction that there should be a dynamic connection between these two academic activities. Their coalescence stimulates movement in both directions and contributes to a

continuous renewal of the education and a firmer anchoring in reality for research. Today, this ideal may serve as a memento for those who, in various ways, promote a division between education and research.

Finally, at a higher level, the Humboldtian model may be viewed as an unusually coherent and well-thought-out idea of what distinguishes an ideal university. This idea is underpinned by a set of clear academic principles that at the same time permit variation – principles which, thanks to their adaptability, have had relevance in various historical contexts. Without being tied to a certain societal system or committed to a particular political movement, the Humboldtian model has, more than any other comparable vision, represented an idea about the university as an autonomous world with its own logic and its own system of norms that are not the same as those of ideology, the market, or usefulness for the state.

Seen in this light, there is an unquestionable value in bringing the Humboldtian tradition into the contemporary debate and recalling what it has represented in various ages. As a historically evolved phenomenon, it harbours a wealth of reflections and experiences, of sobering correctives and intoxicating dreams.

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Chapter 6
Building Knowledge:The Research Mission in American Universities, 1890–2018

Roger L. Geiger

Introduction

In American higher education, the research mission has had a long and tortuous path to achieve comparable status with teaching and service. Even in modern times, it has coexisted with and often been overshadowed by other, more student-oriented missions such as the preservation and inculcation of culture, the preparation for professional careers, and the cultivation of practical skills. Thus, research has been one mission among several. This was the case at the beginning of the twentieth century, when American universities were provincial outposts in the world of science; and it was true at the end of the century, when they were global leaders – the model for world-class universities. This chapter examines the role of the research mission in the evolution of American universities and relates this mission, at least in general terms, to the institutional conditions for the advancement of academic knowledge. Many factors have affected this process.

Foremost, the growth of knowledge itself is an independent, international phenomenon external to individual universities. The extent to which institutions react to the state of knowledge by accommodating a learned faculty and motivated students, and by providing them with the resources to pursue knowledge, depends on the interaction of several variables.

First, societal expectations – call it the zeitgeist – play a large role in influencing how universities balance missions and activities. Second, the zeitgeist also conditions the amount and type of external resources made available to support research. Third, contributing to the advancement of knowledge is demanding in terms of resources and personnel. Hence, the internal resources that can be devoted to supporting a research capacity are critical. Finally, internal resources depend upon

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institutional commitment to the research mission, not just from its head, but also the academic leadership of deans, department heads, and leaders of research units.

Since the nineteenth century, the growth of knowledge has been a constant stimulus for universities to cultivate a research mission, but the inclination and capacity of universities to respond has proceeded in stages. Each stage has institutionalized aspects of the research mission that have then become permanent features of American universities – increments of a cumulative growth process.

From mid-nineteenth century, institutions began welcoming research and scholarship as a kind of external bonus rather than an institutional commitment. Toward the end of that century, a small set of universities made serious efforts to nurture research, which encouraged the formation of the academic disciplines. The institutional forms of an effective research mission developed during the interwar years but were confined to this set of institutions. After World War II, federal demand for research created opportunities for entrepreneurial behavior, largely among a handful of institutions. However, a more inclusive system soon evolved in which research participation became a strong priority for universities and for their patrons. The Academic Revolution of the 1960s then spread the mission of basic research widely across a growing base of universities. The advances in research and graduate education of this era persisted despite the reaction that followed, in which the value of academic research was questioned, and resources were constrained. After 1980, appreciation for research was rekindled by linkage with economic development, although this orientation was contested by critics. Finally, at the end of the century, the research mission received renewed public and institutional support, inspired by the emergence of revolutionary science-based technologies. However, this robust research mission was more dependent on external patrons and more autonomous than ever within the structure of American universities.

Beginnings

In the mid-nineteenth century, a handful of American colleges sought to keep abreast of new knowledge, as best they could. They hired learned scholars, when possible, but did not make this an institutional commitment. For example, after 5 years of intensive language studies in Europe, Edward Salisbury was appointed Professor of Arabic and Sanskrit at Yale College in 1841. These subjects were not taught in the college, and Salisbury received no salary. Actual scholarship or research was a bonus, sometimes made possible by philanthropy, as was the case with the Peabody Museum of Natural History at Yale, the Harvard Observatory, or Harvard's Lawrence Scientific School. As yet advanced learning had no place in the college curriculum (Geiger 2015, pp. 263–266, 327).

In the first half of the nineteenth century, research emerged as a university commitment in Prussia and other German states, and soon influenced universities in contiguous states. Where the mission was most vigorous, professorial appointments were determined by scholarly production, and professors were furnished with

seminars and institutes to further their studies and those of their epigone. Oxford and Cambridge, in contrast, largely resembled conditions at Yale and Harvard in regarding research as desirable but separate from their educational mission. But Germanic universities spurred the growth of new knowledge with which universities elsewhere soon had to contend. International students flocked to these institutions to imbibe the new learning, and some of them were converted to the 'religion of research.'

When Charles W. Eliot was inaugurated as president of Harvard in 1869, he explicitly stated that the university had no separate funds for supporting research. Just 7 years later, Johns Hopkins opened as the first American university to have an institutional dedication to research. It chose faculty on the basis of their scholarship, furnished the means for them to advance their subjects, encouraged them to launch academic journals, and placed greatest emphasis on doctoral education. Hopkins soon had an impact on other universities, which sought to accommodate the new disciplinary knowledge, but were ambivalent – or confused – about research. After 1890, the first "academic revolution" triumphed as a handful of American universities institutionalized a curriculum based on the academic disciplines, established doctoral programs, and tentatively embraced the research mission. But limitations were soon apparent. For example, many colleges were also swept up in the enthusiasm for graduate education and began offering PhDs without a foundation of research. Mount Union College, which had no library, conferred 16 PhDs in a decade. But it was soon apparent that PhDs required research and qualified faculty. Only a handful of institutions proved capable of sustaining a learned faculty, offering facilities for research, and attracting some of the few bona fide doctoral students (Geiger 2015, pp. 326–338).

In 1900, fourteen of these institutions joined together to found the Association of American Universities (AAU) in order to establish and uphold standards for the American PhD. Just three were public universities – Michigan, California, and Wisconsin. The nine leading private universities were charter members, plus Clark and Catholic Universities, which were much smaller institutions that taught only graduate students. At the end of the decade, a science journalist, Edwin Slosson, identified and described what he called the fourteen 'Great American Universities.' All AAU members, they were a diverse, symmetrical sample: the three state universities plus Illinois and Minnesota (AAU members in 1908); five original colonial colleges (Harvard, Yale, Princeton, Columbia, and Pennsylvania); and four recent philanthropic creations (Cornell, Johns Hopkins, Stanford, and Chicago). These were the largest American institutions in terms of budgets and faculty. And they were all committed to graduate work – which Slosson called "the distinguishing feature of a university" (Slosson 1910, p. ix). But they were rather unequal in this respect. Most private universities had a head start over the publics (although Princeton and Stanford also lagged). These institutions, plus the technical universities, MIT and (later) Caltech, comprised the American research universities from 1900 to 1940 (see further Geiger 1986). They were the only institutions to maintain a more or less serious commitment to the advancement of knowledge in those years – and into the interwar era.

The Interwar University Research System

Before World War I, universities were widely considered to be over-burdened with teaching and ill-suited for dedicated research. For that reason, both Andrew Carnegie and John D. Rockefeller endowed private institutes for the advancement of knowledge (Carnegie Institution of Washington and Rockefeller Institute for Medical Research). The wartime contribution of university scientists, working with government and industry, changed this perception. Following the war, a burst of enthusiasm supported an 'ideology of science' that promoted scientific advancement through the cooperative efforts of the federal government, industry, foundations, and universities. The National Research Council (NRC) was the chief fruit of this fleeting sentiment (and Carnegie Corporation funds). The rather conservative leaders of American science soon wanted no part of congressional meddling, and industry's interests were confined to applied research. But foundations embraced the cause of advancing American science, chiefly through the universities.

The Carnegie Corporation and, mainly, the several Rockefeller foundations became the patrons of university research in the 1920s and 1930s. In providing multiple forms of support, they tended to follow two approaches. One Rockefeller head stated his policy was to "make the peaks higher." For a developing system, this was a sensible strategy to catch up with world standards, but in practice it meant lavishing large grants on the leading private universities – the academic peaks. Large awards were made for research capital: buildings, endowments, and establishing new units like the Stanford Food Research Institute, the Yale Institute of Human Relations, and Chicago's Oriental Institute. Although they occasionally seeded non-research universities with grants for specific programs, this kind of giving concentrated research in these universities, and the wealthiest of them at that. However, the foundations were also intent on strengthening scientific fields, and for this purpose they made substantial investments in intermediate organizations. Besides the NRC, they funded the Social Science Research Council and the American Council of Learned Societies – units that aided the organization and support of scholarship. The foundations utilized the expertise contained in these organizations to award doctoral and postdoctoral fellowships that made an enormous contribution to bolstering academic science.

At the institutional level, the research mission was handicapped by the disorganization of both graduate education and faculty careers. Graduate programs in the 1920s were open to anyone with a bachelor's degree. Some fraction of students possessed both ability and academic ambition, but the bulk of enrollees were often recent graduates who had failed to find jobs. Standards were low and attrition was high. This situation began to improve in the 1930s. Harvard instituted some selection for admission in 1930, and other universities followed suit. In 1937, the leading universities organized the Graduate Record Examination. Selection and growing financial support for students raised the level of doctoral studies by the end of the decade.

Faculty inbreeding was a standard practice throughout American higher education in these years. The enrollment boom after World War I created a demand for teachers, which was largely met with graduate students. As they finished their degrees, they were retained as instructors. Soon research universities had large numbers of instructors with no procedures for promotion or termination. Harvard president James Conant was the first to address this problem, but not until the end of the 1930s. A standard for promotion and tenure was promulgated by the American Association of University Professors during World War II. Thus, by the 1940s an organizational structure had emerged that supported the research mission by imposing qualitative judgments on graduate students and junior faculty.

By this time as well, American universities had become world leaders in strategic fields, largely due to foundation patronage intelligently directed to the advancement of knowledge and the internal efforts of the research universities. Large and carefully chosen investments of Rockefeller funds raised American medical science to foremost status. Postdoctoral fellowships awarded through the NRC created the foundation for eminence in the physical sciences, particularly atomic physics. Support for the social sciences through the SSRC and the large numbers of academic practitioners elevated American psychology and economics. The broad development of academic disciplines instilled an incipient research mission in would-be research universities.

The Postwar System of Academic Research

The postwar research economy evolved out of the massive federal support of research during the war (Geiger 1993). Under wartime pressure, technological advances of enormous significance had been achieved. First and foremost was atomic energy, but almost as many dollars had been invested in the development of radar. Jet and rocket propulsion, electronics, computing, and medical advancements also headed a long list of breakthrough technologies. There was no question of abandoning their further development after the war ended, since they were essential for the nation's future defense and held great potential for civilian industries as well. Universities were affected in two different ways. Large, university-based laboratories continued to be funded by the armed services. The chief beneficiaries were MIT, which had led research on radar, and UC Berkeley, which became the world leader in atomic physics. Other large laboratories at Johns Hopkins (Applied Physics) and Caltech (Jet Propulsion) had little interaction with academic departments. A different approach was taken by a new unit, the Office of Naval Research (ONR). It sought to expand beyond wartime contracts to establish ongoing relationships with academic scientists. It consequently funded relatively small research grants on a spectrum of subjects. At the National Institutes of Health, medical research was supported in this way as well. Support for this type of investigator-initiated proposals meant that federal research funds were available to any university that could propose worthy investigations.

Thus, becoming a research university became increasingly feasible – and increasingly imperative in order to keep abreast, let alone advance, academically. The sixteen prewar research universities possessed the advantage of having largely assimilated a research mission, as well as the new standards for academic qualifications of faculty and doctoral students. Twenty more institutions belonged to the exclusive Association of American Universities and were thus officially committed to the academic standards required for research and doctoral education. They included Northwestern, Texas, Ohio State, Washington, and North Carolina.

Beyond these, another tier of less-developed institutions gradually embraced the research mission and doctoral education. This was part of a general movement. The flagship universities of ten smaller states established doctoral programs, as did eleven 'second' state institutions. Many of the latter were among the eighteen (mostly) land-grant *colleges* that changed their name to *university* in these years (1950–1965). Many of these institutions had become, or soon would become, significant performers of research and producers of PhDs. By the end of the 1950s, the university research system had more participants. More important, American postwar academic research had evolved the most powerful system for advancing knowledge that the world had ever seen.

The sponsors and performers of research had coalesced into a *self-organizing system* (Geiger 2019). Extremely decentralized, a multitude of actors and actions were coordinated by positive feedback mechanisms that oriented and stabilized the research processes and validated the outputs. This system presented research sponsors with a rich palette of possibilities. They could draw upon the entire population of academic researchers, awarding support to the most promising proposals, whether independently submitted or solicited. If their objective was to develop products or weapons, they could assign such projects to specialized laboratories – federal, industrial, or managed by universities. Sponsors could identify and secure the most competent investigators, and they organized internal units like the ONR to do just that. But the efficiency of the funding process was scarcely an issue: scientific judgments ensured that valuable findings were retained and built upon; disappointing results dismissed.

Some worried that academic researchers forfeited their freedom by accepting the terms of sponsored research. By no means. Their behavior was shaped by positive feedback from three separate but interrelated reward systems. Research grants provided resources – for their labs, their students, and themselves. Universities rewarded academic achievement with promotion and tenure. And the academic disciplines conferred professional recognition and prestige. Academic scientists were strongly motivated to advance their field in ways that earned professional advancement as well as garnering research grants. Large funders like ONR, the Atomic Energy Commission, or the Ford Foundation, could and did dominate selected fields, but these were only small pieces of the research economy, and they mirrored these same merit-based processes. Irregularities in any case tended to be self-correcting. With a common objective, the multitude of participants in this self-organizing system generated increasing amounts of knowledge – theoretical, basic, programmatic, technical, and/or applied.

With the zeitgeist favoring research and the federal government providing the funds, the onus was on institutions to adapt to this environment. Specifically, the relevant variables became presidential leadership, faculty competence, and institutional resources. Initially, there was a good deal of distrust toward federal domination of research, and presidents were often distracted by other university missions. However, the most successful leaders understood the emerging dynamics of the new system. Stanford proved most adept at this. The engineering dean and provost, Frederic Terman, working with President Wallace Sterling, brought postwar federal contracts for electronics research, but also perceived that the entire university had to be improved in order to generate the resources required to achieve eminence. At Berkeley, Clark Kerr had a masterful grasp of the new research economy, along with relatively abundant resources to invest in quality. He raised Berkeley to a preeminent position, and helped UCLA piggy-back to become a major research university.

The Academic Revolution, 1958–1968

The academic revolution defies precise dating. It was basically an intensification of the forces just described, which became conscious policy after the Soviet launch of Sputnik in 1957, and began to lose momentum after 1968, when Christopher Jencks and David Riesman published the volume with that title. For them, the term encompassed, first, the rise of graduate schools of arts and sciences and the specialized academic departments they contained to become the dominant influence in universities and throughout much of higher education. Second, academic research was alluded to throughout as the activity that informed and sustained the departments and their graduate programs (Jencks and Riesman 1977/1968, pp. 236–250, 541, xiv, 250).

This academic revolution was the product of three related developments. Federal expenditures for academic research increased enormously – 15% per year – led by civilian agencies – NSF and NIH – and devoted predominantly to basic research. Doctoral education mushroomed from 10,000 PhDs in 1960 to 30,000 in 1970, accounting for its predominance at research universities. Finally, this activity produced an explosion of knowledge – intellectual revolutions in virtually every academic field. The enthusiasm of students and faculty and the excitement produced by these developments inspired universities across the spectrum: Research and graduate education were favored by American society, and they were the favored pursuits of universities as well.

For the first time, increasing the number of research universities became an explicit policy. A 1960 report chaired by Glenn Seaborg called for a doubling of the number of first-rate research universities – from 15–20 to 30–40. The Ford Foundation had already begun a program to elevate selected private research universities, an effort to counter-balance the growing size and stature of state universities. Now the federal agencies supporting academic research all established science development programs, the largest sponsored by NSF and NASA. However,

burgeoning federal support for university research was the principal factor in expanding the number of research universities. A rating of such universities in 1957 examined 25 institutions; a similar exercise in 1969 rated the doctoral programs of 130 universities, all now participating in the research system and, presumably, embracing research to varying extent in their missions (Geiger 1993, pp. 198–217).

Access and Equality in the 1970s

The change in the national zeitgeist from the late 1960s to the early 1970s was abrupt and far-reaching. The university research mission was attacked as elitist and for detracting from undergraduate education. The expansion of access to higher education assumed the highest priority. Efforts were undertaken at the federal, state, and institutional levels to increase enrollments of minorities, women, lower-income students, and adults as nontraditional students. The general disparagement of academic values and research was not only disheartening but also had tangible repercussions. Congress limited federal funds for academic research, and many state legislatures tilted state funding away from flagship universities. On campuses, the research role faced greater competition from more fashionable activities, principally undergraduate education.

In the research economy, the shrinkage of federal science funding occasioned the largest adjustments and the loudest complaints. Federal funds supported 73% of university research in 1967. Over the next decade, it declined slightly in real terms, but the failure to grow ended two decades of exponential increase and inflated expectations. Funds for science development, graduate training, and R&D infrastructure were scaled back or eliminated, thus depriving universities of extra revenues that had supplemented and encouraged the research enterprise. The exception was biomedical science at the National Institutes of Health, which doubled its support for academic research during the decade. Congress' disillusionment with the basic research ideology of the 1960s was manifested in ineffective attempts to promote applied research.

In the academic departments of research universities, the dominant tone was set by the long tail of the academic revolution. The number of doctorates grew to a peak of 34,000 in 1972 and remained only slightly below that level for the rest of the decade. These were the best-trained scholars and scientists in U.S. history, emerging from the intense academic atmosphere of the 1960s and steeped in the latest theories and methods of rapidly advancing disciplines. Only now, few universities were expanding and, indeed, most coped with financial retrenchment. New PhDs were fortunate to find positions at the few universities still expanding in the South and West or in non-research institutions.

Universities possessed unique combinations of academic strengths, financial resources, and discretion in allocating expenditures. Yet, all belonged to an organizational field – research universities – with well-defined norms and values. Hence, universities made realistic assessments of their position within this field and the possibilities for preservation or improvement. After the mid-seventies, when

research activity began to revive, these perennial processes altered the configuration of research universities.

The hierarchy of research universities, circa 1980, showed both stability and change. Stability existed at the top, where the sixteen leading institutions were no different from those identified in the earlier ratings (Geiger 1993, pp. 135–146). However, in the next 25 places, at least ten universities were new entrants to the ranks of significant research universities. Four were literally new: the additions to the University of California at Irvine, San Diego, and Santa Barbara, and State University of New York's campus at Stony Brook. Four others (Arizona, Georgia Tech, Maryland, and Carnegie-Mellon) had been transformed from largely teaching institutions (Geiger 1993, pp. 208–209 and 273–295 for Arizona and Georgia Tech). These developments added a significant dimension to any interpretation of American research universities or higher education's dismal decade. Despite a difficult fiscal environment, governmental disfavor, and cultural disdain for academic values, the most academically eminent universities preserved the research mission and augmented their academic distinction. Further, given the momentum of the academic revolution, ambitious universities advanced both in academic quality and research performance (Graham and Diamond 1997). This dynamism would become even more pronounced when conditions favored research universities, as they did in the next decade.

Economic Relevance: The New Research Mission, 1980–2000

Around 1980, a convergence of factors infused new life into the research mission. The stagnation of the U.S. economy was attributed to a lack of innovation, with one possible remedy being the harnessing of academic research to contribute to economic development. The famous Bayh-Dole Act was passed in 1980, not only allowing, but instructing universities to patent and license discoveries made with federally funded research. At the same time, the huge commercial potential of biotechnology became apparent. It was the most prominent 'science-based technology' – fields in which basic scientific research had the potential to yield significant technological advancement. The university research mission received a new rationale – a new form of backing in the zeitgeist. State and federal governments implemented programs to encourage university–industry cooperative endeavors. In a booming economy, most forms of support for academic research increased. But this prosperity was different from the academic revolution. The zeitgeist favored investigations of topics with potential economic relevance, but involvement with the commercial economy was not popular on campuses.

University presidents who joined the bandwagon soon faced considerable pushback from liberal arts faculty and alumni who considered these activities to be illegitimate. They were supported by a growing literature charging that university involvement with commercial ventures was undermining the integrity of learning and research. There were exceptions, of course; Stanford and MIT led the way in commercialization. Most universities had colleges of engineering and medicine in which faculty favored close ties with industry. As a result, technology transfer

became a new institutionalized mission of research universities, in spite of the critics. In the 1980s every major university established an office of intellectual property to handle patenting and licensing. The number of university research parks quintupled in the decade, from 24 to 124. They were soon followed by business incubators and other units intended to encourage and nurture start-up firms. Business support for academic research tripled in the decade, encouraged by public subsidies.

Enthusiasm for 'technology-based economic development' has fluctuated since the 1980s. Support for new programs and public subsidies waned in the 1990s, but important incentives endured. As a handful of universities reaped enormous windfalls from pharmaceutical patents, every university redoubled its efforts to generate and profit from intellectual property. Personnel in university tech transfer offices nearly quadrupled in the decade, as did patent filings, while licensing revenues grew even more, largely due to 'blockbuster' patents (Geiger and Sá 2008, p. 154).

By the end of the twentieth century, universities emerged from three tumultuous decades with their research mission more secure than at any time since the academic revolution. Underlying support from the business community and governors remained strong and undergirded a growth in funding for academic research. Support for academic R&D accelerated in the late 1990s and continued until the Great Recession. Congress committed to doubling the $11 billion NIH budget, which it accomplished in the next 5 years. In 2000, $1 billion of annual funding was promised to the National Nanotechnology Initiative – a new science-based technology. In addition, the nexus between research and economic development was affirmed by President George W. Bush in announcing the intention of doubling federal spending for the physical sciences, justified as part of the American Competitiveness Initiative (unfulfilled).

Universities fully embraced this mandate, some beginning in the 1990s. As a consequence, universities of all types placed greater emphasis on the research mission. The research system became increasingly competitive, and the traditional leaders tended to assert their competitive advantage. If the research mission remained robust, it also became increasingly autonomous from other university activities and preoccupations. An autonomous research role had emerged with postwar federal research support, but conditions in the 1980s and 1990s created still further separation.

The Research Mission in the Current Stage – The Twenty-First Century

The current state of research in American universities has perpetuated and perhaps accentuated the trends that fueled the expansion up to and through the year 2000. The targeting of federal research has become more pronounced, with a corresponding adaptation in research universities. As a result, the research mission has become increasingly self-contained within universities.

Most important, the science production of American universities continued to grow. From 2000 to 2016 expenditures for academic research increased by 73%, or $30 billion in constant dollars. Some 60% of science publications had university authors, and 80% had at least one university author (2011) – compared to 55% in 1970. The top 30-some universities continued to dominate academic research. Just 26 produced two-fifths of scientific publications (Powell et al. 2017); and 36 universities produced nearly three-fifths of the top 1% of most-cited papers (Brint 2018, 44–50). However, the strength of American science also depended on its breadth – another 100 universities that upheld a research mission and nurtured investigations at the research frontiers in various fields.

Federal science agencies' commitment to technology-based economic development continued to receive support. These programs largely emphasized science-based technologies, which principally involved basic research. They were expected to extend existing technologies and yield new ones – to be useful in the medium to long term (Owen-Smith 2018). The vehicle for such programs was awards for large university centers and cross-agency collaborations on identified national needs. In establishing such units, the agency typically defined the technology or problem area in a Request for Proposals (RFPs), and universities then proposed lines of research to fulfill those terms. Large grants usually required collaboration among several universities and sometimes private firms or other organizations. The resulting academic research was generally basic in character, but within the parameters set by the agency. These complex organizational arrangements took place largely outside of the structure of academic departments.

Universities must have the capacity to design, organize, and perform the research called for in such projects. This is best accomplished within existing centers and institutes, or in temporary centers formed for this purpose. Projects of this nature require a corresponding level of organization in universities. In particular, research offices have to design and organize strategic initiatives and assist in writing proposals that meet exacting agency requirements. They also commonly must supply additional funds to meet specifications of the proposal.

Academic research organized in this way can be described as self-contained. It is not really autonomous since it rests upon the expertise of faculty members. Nor is it separated from teaching. Faculty members have dual roles as members of academic departments and as researchers in one or more organized research units. Centers and extended research projects are integral for training graduate students in the most relevant areas, and undergraduate opportunities for research are popular and widely available.

One half of research funds are awarded to biomedical research, and much of that is performed in the research institutes of university health centers. Another portion is associated with economic development and a substantial portion is absorbed by centers and institutes. Each such unit is unique, shaped by the distinctive tasks at hand. The principal types are: (1) interdisciplinary centers designed to address new or complex subjects, especially those attractive to patrons; (2) scientific institutes required to house sophisticated research instruments and technologies; and (3) consumer-oriented

centers, such as those intended for collaboration with industry. Within universities, the research mission is supervised by a vice president for research, who works with the center directors and research deans of colleges. In the natural sciences, professors are expected to generate revenue to fund their laboratories, whether in departments or institutes. In colleges with more teaching responsibilities, like business and liberal arts, the increasing use of adjunct faculty has permitted regular faculty to concentrate more fully on research. Thus, the research activities of major universities have increasingly acquired a life of their own. Graduate education is linked – in fact, enriched – by these activities.

The research mission in postwar American universities has always had two faces – one internal and one external. Internally, scientists are governed by the ethos of science and the mores of their respective disciplines. They seek above all to expand the bounds of knowledge in their field and train apprentices to do the same. But these endeavors require infrastructure and resources from their universities and external funders. The research mission of the university comprises a commitment to provide, insofar as conditions allow, the facilities and environment that will allow faculty investigators to attract the external funding to support their research. Externally, government support for academic research has always required a political rationale, an underlying motif for devoting public funds for the advancement of knowledge. After World War II, national defense provided the impetus for a federal investment in university research. Federal support during the post-Sputnik academic revolution, triggered by Soviet competition, came closest to mirroring the academic aspirations of faculty for the advancement of knowledge. But the attenuation of this or any other rationale in the 1970s corresponded with stagnation in funding and comparative neglect. Since 1980, innovation and technology-based economic development have provided a sustaining rationale for public investments in academic research.

Through the vagaries of this process, much has remained constant. The goal of improving human health has consistently encouraged generous investments in biomedical research. The external rationales that have boosted public research support have also shaped university research to those purposes. However, a very large spillover effect has also existed. When public funds flowed to the targeted purposes, general support for academic research also tended to flourish. Indeed, the consistent expansion of the resources provided by the federal government and American society, injected into a self-organizing system for the advancement of knowledge, has sustained the internal research missions of the world's leading system of research universities.

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Chapter 7
Universities in a 'Mode 2' Society

Peter Scott

Introduction

There is a pervasive sense that higher education in the twenty-first century is on – or over – the brink of a great transformation. The age of mass higher education, which shaped the present pattern (and mission) of universities, is drawing to a close. To be succeeded by what? That is a difficult question to answer. Although the sense of transformation, imminent or already under way, is pervasive, its causes, and course, are obscure and often contested. Scholarly analysis, ideological preferences and political choices are hopelessly entangled. However, two modes of discourse about the future of higher education can be identified – the first is political and managerial, and focused on (perhaps shorter-term) political and organisational evolutions; the second more academic and scientific, and focused on more profound socio-economic, technological and cultural change. These two modes recall the French historian Fernand Braudel's contrast between histoire *événementielle* (political history) and the *longue durée* (structural change) (Braudel 1982). But other contrasts may also be recalled – between technocratic analysis and normative choices, between managerial and intellectual modes of analysis, or between a close-up observation of what is happening to the university and a more reflective gaze taking in not just the university but its changing social context.

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Markets, Managers and Organisations

The first mode of discourse dominates policy discussions about the future of higher education. Its contours and choices are familiar. Should universities continue to be predominantly funded by general taxation, preserving the principle of tuition-free higher education for students, or is some form of 'cost-sharing' between citizens-taxpayers and students-users (or 'customers') now inevitable because of the global drift towards lower-tax regimes and the advent of mass participation? To what extent should the government of universities be shaped by traditional collegial-bureaucratic norms, or must they adopt more managerial practices (and, perhaps, a culture of 'managerialism') to be able to respond to the twenty-first-century challenges they face?

How fundamental are these challenges likely to be? Some argue, hopefully, that the future course of elite universities at any rate, the core of most higher education systems, will be characterised by evolutionary rather than revolutionary change, while truly disruptive change will be confined to the (admittedly growing) periphery of newer more teaching-oriented universities and, in some countries, private for-profit institutions. It is these institutions that will bear the brunt of the rising tide of consumerism among students and the efficiency generating disciplines of the 'market', whether real or contrived through state policy. Others argue the opposite, that it is precisely the most research-intensive universities which will be caught up in the growing competition characteristic of a global knowledge economy (as well as being the primary focus for national ambitions in both geo-political and economic domains). It is these elite institutions that will be most exposed to the global market in 'world-class' research, and the competition for the most eminent researchers, and also most vulnerable to political interference because of the key role they play in national ambitions.

Within this first discourse of transformation there is an even more radical critique. It is argued by some that the post-medieval learning culture of higher education, rooted in lectures, tutorials and other forms of face-to-face teaching and in libraries as repositories of logos (although often now in electronic forms), which survived the age of mass higher education, is now doomed to extinction. Lectures will be replaced by internet 'chat rooms'; tutorials by social media; critical habits and methods as old as Socrates by on-line learning packages and assessment tools; libraries, with their closely guarded taxonomies and hierarchies of knowledge, by web-based open-source materials. These transformations in the technology of learning will be accompanied by a deeper revolution in social relations and organisational arrangements. Students may no longer be required to congregate in special-purpose institutions, or only occasionally. Universities may even cease to exist as designated 'spaces', in physical and perhaps critical terms. Their peculiar habitus will dwindle into a dim historical memory. It is easy for these wilder imaginaries of transformation to run out of control, typically in the fevered voices of management consultants and think tanks (Donnelly et al. 2013). But in more

measured terms they have become a staple of thinking about the future of higher education.

Society and Ideas

The second mode of discourse about transformation is different in focus and tone. It focuses as much on higher education's hinterland, not only on changes in its political economy and development in (communication) technologies, which tend to dominate the first mode of discourse, but also its relationship with deeper social structures and cultural evolutions. When the university does remain the primary focus, it is more likely to be as a scientific and intellectual institution rather than a political or managerial organisation.

The classic formulations of the concept of 'mass higher education', developed by university leaders such as Clark Kerr, President of the University of California in the 1960s and by scholars like Martin Trow, were very much in this second mode – although they did not ignore more immediate policy imperatives (Kerr 1963; Trow 1973). Their interest was in how higher education related to the wider development of post-war America – a complex confection of New Deal themes in the process of being radicalised by the New Left and the race revolution, Cold War/Great Power politics, and the rising tide of materialism and consumerism that appeared to be bringing the American dream within the grasp of almost everyone. Dreams later unrealised and ambitions frustrated perhaps, but vital and potent in their day. And there was never any doubt that the university, in the extended and energised form of 'mass higher education' was a key agent of hopeful change.

Two later examples of this second mode of discourse may have shed some of this hope – as post-war optimism was succeeded by neoliberal revanche and the focus shifted away from America to a more confusing multi-polar world. One example is the work on complexity – and 'super-complexity' – undertaken by the British scholar Ron Barnett (2000, 2017). His more philosophically inclined approach does not ignore changing social realities, but these are not his primary focus. His interest is in the growing complexity of roles taken on by the modern university but is not confined to this mission stretch (arguably, overload) but also focuses on the growing complexities of society, the economy, culture and science. It was this double-complexity, which he has labelled 'super-complexity' that now shapes the university. This, for Barnett, is the key transformation beside which any shift to markets or drift towards managerialism dwindle into insignificance.

The second example is the work on new patterns of knowledge production, often glossed (although too simply) as a transition from 'Mode 1' science to 'Mode 2' knowledge (Gibbons et al. 1994; Nowotny et al. 2001). The core idea here is the increasing contextualisation of knowledge, both as praxis (multiple and new actors, multiple sites, new forms of dissemination and so on) but also in terms of its core constitution (problem setting, modes of enquiry, validation processes). This is much more, and less, than more familiar ideas about the social construction of knowledge.

More significant is the fact that new knowledge, even fundamental science, is now being produced under new conditions – within much more open systems with fuzzy boundaries. It is this idea of socially embedded knowledge production, extended to society at large, which provides the theme for this chapter.

But it is only one example of a way of thinking about the transformation higher education is experiencing in these early decades of the twenty-first century. Others include the idea of a 'triple helix' between universities, business and industry and the State (Etzkowitz 2008, 2014) and of the 'entrepreneurial university' (Clark 1998), although the latter is perhaps an example of a framework that bridges both modes of discourse. The choice of 'Mode 2' as a framework is not intended to suggest it has superior explanatory powers than those of other conceptualisations, such as super-complexity. But, like these other conceptualisations, it does have the advantage of being able to link the 'private life' of disciplines (in terms of teaching and research) with the 'public life' of the university as an organisational form, political actor and economic agent.

The focus of this chapter, therefore, is on the great transformation of higher education, seen to some degree through the lens of the concept of 'Mode 2'. The idea of a 'Mode 2' society, and not just 'Mode 2' knowledge, is based on the assumption that just as more open research systems are developing, so too are more open learning systems in universities (and outside them), all against a background of the emergence of new social and economic forms and political cultures. And, it is in this wider context that the role of universities is discussed.

The chapter is divided into three sections: The first section is a discussion of the major elements, or contours, of a 'Mode 2' society under a number of headings – the economy, political culture, and social and cultural change; the second section examines the implications for these changes in the economy, politics, and social and cultural change – in short, the emergence of a 'Mode 2' society – for the university; and the third section focuses more directly on changes within the university (and the wider higher, or maybe tertiary, education systems in which they are now embedded), and discuss their purposes, as may have been modified by this 'Mode 2' society (or, perhaps, as these purposes are now perceived); and more detailed issues of governance, management and organisation, learning cultures and so on.

'Mode 2' Society

The idea of 'Mode 2' society has three main components: (i) changes in the economy (although not in a narrow technical sense); (ii) shifts in political culture; and (iii) social and cultural transformations. The changes in these three domains are sketched here in broad, even impressionistic, terms – although the main conclusions reached are largely supported by more detailed research and scholarship.

Economy

For almost a decade the global economy has experienced uncertain growth, in sharp contrast with the previous two decades. Ten years after the financial crisis of 2008, itself the product of over-ambitious deregulation of financial services, and the subsequent economic recession, there has been only a limited and fragile recovery. If it had not been for the dynamism of the Chinese and other East Asian economies (although growth rates in some sub-Saharan African countries have also been impressive, their overall weight in the global economy cannot be compared with that of east Asian economies), the world could well have experienced a recession as deep as the depression of the 1930s, although questions have been asked about the sustainability of the high growth rates of these non-western economies.

The US economy has performed somewhat better than the economies of most European countries. But the extent to which this comparative 'success' has been the result of the 'Uberisation' of the labour market (a sustained shift to less secure forms of employment and spurious 'self-employment') is a matter for debate. In the US and other countries where the number of people in employment has increased, only a minority of these new jobs have been in high-skill and high value-added occupations, as has been demonstrated by the stagnation of productivity in many of them. In some European countries, including the United Kingdom, real living standards have not increased for a decade (because GDP growth has merely matched population growth), while in others they have fallen, with alarming levels of (in particular, youth) unemployment. However, there has been almost no challenge to the standard neoliberal prescriptions of markets (and yet more markets).

In many parts of the world, in response to declining tax yields and the perceived difficulties of increasing tax rates (or taxing new forms of wealth), the response of Government has been to pursue policies of 'austerity', although some European countries (notably in Scandinavia) have attempted to mitigate the impact of this overall trend, and China as an exceptional state-market authoritarian hybrid is – as so often – an exception. Public expenditure has been cut, and the already established trend towards the privatisation of public services has accelerated. The effect has often been to curb the number of well-paid and secure, and often professional, jobs in education, health and government (and often located in the squeezed public sector). Instead stimulus has been provided by making ultra-cheap credit available (to individuals and enterprises) and expanding the money supply through so-called 'quantitative easing', addictions that are now proving difficult to shake off. Although the suspicion has grown that the dominant 'neoliberal' economic model is broken, it has been difficult to conceive of, still less implement, an alternative (Crouch 2011).

Three issues in particular arise from this picture of economic (and intellectual) stagnation.

First, it has been accompanied by ever-widening divisions between rich and poor, in terms of income, as the French economist Thomas Picketty (among others) has demonstrated. In his magisterial book *Capital in the Twenty-First Century* he shows that since the triumph of neoliberal ideas beginning in the 1980s, taxation on earned and, especially, inherited wealth has been sharply reduced, benefitting the

rich, and at the same time social allowances, which support the income of the poor, have also been cut (Picketty 2014). The result has been to produce a gap as wide as that which existed in the *Belle Époque* (Gilded Age) of the early 1890s and 1900s. The greater equality that prevailed in the days of the post-war welfare state, compounded by the large-scale destruction of capital by two World Wars, now appears an aberration. This inequality in incomes almost certainly translates into an equal, or even greater, inequality in life-chances. However, the 'populist' backlash, as shown by the election of Donald Trump, the UK decision to leave the European Union and the rise of authoritarianism and (anti-immigrant) nationalism in many other parts of Europe and the wider world, has raised the key question of whether inequality on this scale is politically and socially sustainable.

Secondly, there are serious doubts about whether even current levels of economic growth, let alone any return to the higher growth rates of the second half of the twentieth century, are sustainable in environmental terms. The era of cheap energy is coming to an end, speeded by growing political opposition to polluting technologies. The limits of the availability of key industrial materials are being rapidly approached. The need to address global warming, for example to cope with rising sea levels or limit desertification, will require massive investment in infrastructure, diverting resources away from consumption. And current consumption patterns and life-style choices pose fundamental challenges to public health and social well-being. So, even if it were possible to return to the record rates of post-war growth through adjustment to economic policies, whether this would be sustainable without far-reaching adjustments to current business models and consumption patterns is highly doubtful. There is also the associated argument about the 'social limits' of growth, as the value of positional goods dwindles, first articulated in the 1970s (Hirsch 1976).

Finally, the sensible adjustments to public policy required to produce balanced and sustainable growth appear to be unlikely. Because there has been a reluctance to break faith with the neoliberal orthodoxy established in the 1980s, the tools to achieve such an adjustment are often lacking. All countries, of course, have national innovation strategies; indeed, there is an almost inexhaustible supply of such strategies. But many are 'Potemkin villages' because they cannot make use of the essential instruments of State planning that are needed to deliver these strategies (and which were available in between the 1940s and 1970s). To attempt to fill the gap, there is a forced, and often ineffective, reliance on 'tweaking' the market through complex regulation, occasionally with unintended and even perverse effects, and 'nudging' the behaviour of individuals. The so-called regulatory State, which will be discussed in the next section, is clearly an inferior mechanism for achieving public policy goals.

Political Culture

The second element of a 'Mode 2' society is important changes in political culture, which have two different aspects: (i) the changing ways in which the responsibilities of the State are conceived and thought about (which has already begun to be discussed in the previous section); and (ii) the changing nature of politics – media driven (now social media driven), populist and focused as much on 'identity' issues as substantive policy.

The Changing State

In considering the first, how the State is conceived of in the twenty-first century, a contradiction is immediately encountered. On the one hand, as has already been pointed out, there is a continuing 'hollowing-out' of State functions – as some public services have been privatised outright, and the remaining public services subject to a remorseless process of 'modernisation'. There is an extensive literature on the application of business-oriented and quasi-market practices under the label of the 'New Public Management', which have also spread into higher education (Ferlie et al. 2009). But, on the other hand and at the same time, the State has taken on a more activist (and even aggressive) mode of operation. This new activism has taken the form both the 'New Public Management' but also of more intrusive forms of regulation, designed to compensate, to some degree, for the negative effects of privatisation. As a result, a new kind of society – audit society – has developed alongside the regulatory State (Power 1997).

The result is a paradox – the State apparently in retreat, but also increasing politicisation of areas and subjects, once regarded as governed by the norms of (political neutral) public administration or else the domain of civil society institutions. Certainly, the State is in retreat in terms of its direct provision of public services, and direct financial support for public institutions. But this 'shrinking' of the State has often been compensated for by greater power and influence. In many respects the new regulatory – or market – State of the twenty-first century, often governed by political parties of the centre-right, is a more intrusive presence than the welfare state of the twentieth century, often governed by centre-left parties – although, as has already been pointed out, 'regulation' is a much weaker instrument for public action than 'planning', and can be a blunt instrument.

At the same time 'civil society' institutions, whether free professions or trade unions, have tended to be squeezed between State and market. There has been a tendency to subordinate them to the regulatory State, often through a process of rationalisation and 'modernisation' and also to seek to align their purposes with national priorities. Increasingly even universities have come to be regarded as 'delivery' organisations. 'Civil society' institutions have also been weakened by neoliberal ideology which alleges that they are a drag on the supposedly economising and optimising effects of the free market by acting as 'producers' cartels' or by

limiting ‘consumer choice’. The disrespect now shown by many populist politicians, and publics, to experts of all descriptions has intensified the attack on ‘civil society’ institutions.

Changing Politics

These trends have been compounded by changes in the nature of politics. One aspect of these changes in the nature of politics is a remorseless process of acceleration – and also of over-simplification. The most egregious example is President Donald Trump’s attempt to govern the United States through his Twitter account. Abraham Lincoln’s illustrious Gettysburg Address was short, but it could not have fitted within the word limit of a tweet. However, in more moderate forms, this acceleration of political discourse is now a pervasive phenomenon in all democratic societies. The reserved spaces within which policies could be calmly developed, and carefully evaluated, have all but disappeared. What matters is today’s headline, not tomorrow’s substantive outcome.

There has also been a proliferation of think tanks able and willing to offer, generally simplistic and often spurious, policy choices and also to provide suitably supportive ‘evaluations’ of favoured policies. Management consultants now play as significant a role as traditional civil servants in many democracies. The intensity of this accelerated political discourse tends to discourage truly innovative, creative, out-of-the-box thinking. Think tanks and management consultants want repeat business. The effect is that they tend to adopt conservative approaches rather than being, as is often imagined, radical forces in politics. It is not in their interests to think too far out of the box. This inherent conservatism may help to explain the stubborn survival of neoliberal ideas.

A second aspect has been the rise of so-called ‘populism’ – Trump in the United States, Brexit in the United Kingdom, Orban in Hungary, the Alternativ für Deutschland (AfD) in Germany, the Front National (FN) in France and other examples. These forces play on grievances that are real, of national (and even personal) identity, of economic distress, of social marginalisation. In most cases these populist parties may have failed to secure direct traction by securing enough votes to form Governments. But they still wield very substantial indirect influence and have often reshaped the policies and priorities of the traditional centre-right and centre-left parties that have continued to govern. This destabilisation of Christian Democrat and Social Democrat parties is perhaps populism’s most significant victory.

Culture and Identity

A third element of the ‘Mode 2’ society is to be found in broader culture change and how individual identities emerge under twenty-first century conditions. Under this heading a number of familiar, but nevertheless, fundamental, shifts can be identified:

The first shift is the growth of what is often called 'individualisation' and the consequent erosion of notions of 'solidarity'. Once workers joined trade unions; now social media consumers have entries on Facebook. Mass mobilisation remains a powerful force – but in new forms, in terms of social media 'followers' (or 'friends') and website 'hits'. But it has become atomised – and also, critics argue, both particularised and homogenised by the powerful techniques of data analytics. Political parties, with their 'hard' organisational structures, have been replaced by more loosely constructed 'movements'.

The second shift is that individual identity is now constructed in new ways. In one sense individuals have been freed from the constraints of gender, ethnicity, social class and even geography. They are free to self-construct their identities, and even re-invent themselves. However, in another sense that reinvention is silently shaped by the algorithms by Google, Apple, Facebook and the rest. Until recently the emphasis had been on the liberating potential of fluid self-identification. Now it has switched to both its potential for self-destructive and antisocial behaviour, and how it is shaped by the algorithms of control and commerce. Of course, the expansion of higher education has been a major force in reshaping identity.

The third shift is that, because individual identities have become more fluid, there is now a new hunger to establish new group associations. This can happen in positive ways, in the form of global movements campaigning against poverty and the environment. But it can also happen in negative ways as people who feel 'left behind' revert to older forms of 'national' identity (largely exclusive ethno-identities bogusly invented in the nineteenth century) to resist what they regard as the cosmopolitanism of elites. The multiple forms of globalisation, multiculturalism and cosmopolitanism, but also the resistances to them, impact individual identity, and cultural change, in confusing and contradictory ways.

Implications for the University

The New Economy

For the university the major shifts in the nature of the economy, discussed in the first section of this chapter, have led to a number of significant consequences.

First, the links between university education and what in previous centuries would have been unashamedly labelling 'progress' have been loosened. The conviction that the expansion of universities to create mass higher education systems in the second half of the twentieth century, and in particular after 1960 in the United States (a little later in Europe), was part of a wider welfare-state package, and so explicitly related to advancing social equity, has now been all-but abandoned. There has been an interesting shift in language; references to 'mass higher education' have often been replaced by references to 'high-participation' higher education systems, weakening the link with a strong sense of social purpose. Too often programmes to

'widen participation' or promote 'fair access' are essentially compensatory devices, to mitigate the perceived influence of universities as the inevitable producers of elites. In England this compensatory process has been explicit. The introduction of high tuition fees was accompanied by the establishment of an Office for Fair Access, which required universities to demonstrate the effectiveness of their outreach programmes for more socially disadvantaged young people. More generally, a new emphasis on 'social mobility' has replaced the former stress on social justice, implicitly recognising the need to enable a minority of the 'best and brightest' to navigate its way through – up – an increasingly unequal society.

Secondly, universities now sometimes appear to have ended up on 'the wrong side of history', an uncomfortable place to be for institutions that have always assumed they are makers of history. The mass expansion of student places over the past 40 years, once regarded as an unambiguously progressive development, is now regarded more cynically as having produced, in effect, universal access for the socially privileged while leaving the socially deprived not much better off than before. Perhaps too much has been made of this critique of massification. Although this access gap remains in terms of comparative advantage, in absolute terms all social classes have benefitted from the shift towards mass participation. Major gains have also been made in equality of opportunity between men and women and also some (but not all) ethno-cultural minorities. Finally, occupational patterns, and so social class structures, have been transformed since the mid-twentieth century.

Nevertheless, in the eyes of many people who feel they have lost out from the policies of austerity and retrenchment pursued by many Governments since 2008, universities (in particular, elite universities that are socially exclusive and research intensive, now often designated as the 'top universities') are now associated with elites, experts and cosmopolitans. The emphasis on internationalisation, and globalisation, has started an arms race in the recruitment of international students, many of whom inevitably come from the most privileged groups in their societies. Off-shore campuses, sometimes located in grossly unequal (and even undemocratic and illiberal) societies in the Middle East and South-East Asia, have sometimes appeared to confirm that damaging association between higher education and social-economic privilege. New campuses at home, uncomfortably reminiscent of the gleaming towers of corporate business, may also provide visual confirmation.

Thirdly, because neoliberal economic policies have continued to be pursued, focused on stimulating supposedly 'efficient' markets and shrinking the 'inefficient' State that 'crowds out' enterprise and 'stifles' innovation, there have been significant changes in the resource base of higher education. Public funding has been eroded in many countries, although it is fair to point out that often higher education funding has been cut less than funding for many other public services. This has led to an 'intensification' of academic efforts (in effect, preferring 'productivity' to 'creativity' and potentially undermining the moral contract between universities and the academic profession). Although within Europe, with the exception of England, the imposition of high tuition fees has been largely avoided, universities are now forced to search for alternative income streams, sometimes with distorting effects on their academic missions. There is evidence that, under the general, and

apparently innocuous, label of the 'entrepreneurial university', good, bad and ugly practices have all been encouraged. In other regions, there has been a marked trend towards introducing, or increasing, tuition fees – although this has led to significant resistance (notably in the United States), leading to a further deterioration in the standing of higher education.

Finally, the nature of the graduate labour market – as of the labour market generally – has undergone significant change – partly because of the continuation of supposedly market-friendly austerity policies; partly because of so-called 'liberalisation' of labour markets, and partly because of technological change, in particular, 'disruptive' technologies (Brown and Lauder 2017). The traditional public-service and professional careers (and their analogues in industry and business) pursued by most university graduates are no longer so available – and, where they are, they have often been radically transformed. Instead we can now observe an increasingly divisive graduate labour market – between globally mobile elites whose high salaries compensate for any job insecurity, and almost an under-class of unemployed, or under-employed, graduates (even if their fate is often dressed up in the clothes of 'entrepreneurial' or 'portfolio' careers). This has also eroded the link between university education and 'progress', at any rate in terms of social equity.

Twenty-First Century Politics

Equally fundamental have been the implications of the new politics for the University. Universities are now subject to a greater degree of politicisation. In England, the buffer body that once mediated between universities and the State, initially the University Grants Committee (UGC) and most recently the Higher Education Funding Council for England (HEFCE), has been replaced by a new Office for Students (OfS) with a regulatory remit and new powers of surveillance. At first sight England may appear to be an exception. In many European countries universities have been given greater (formal) autonomy – in terms of their governance, of ownership of buildings, and responsibility for employing staff. However, typically this autonomy is essentially managerial. At the same time the State has increased the burden of regulation and accountability, for example in areas like quality assurance. The State has also intensified its efforts to align university strategies, in terms of the production of highly skilled and professional workers and of research, with national priorities.

Not all the consequences of this politicisation are negative. In part it demonstrates how central universities have become in modern societies. In many cases university leaders have been eager to emphasis the key role higher education plays in the development of a high-skill and knowledge-intensive economy in the hope of attracting additional public funding. This has tended to transform what was once regarded as a fiduciary relationship, with the State acting as the sponsor and guardian of universities, to a more transactional relationship, with the State making contracts with universities to deliver specific outcomes. This shift represents a challenge

to traditional ideas of autonomy, and potentially academic freedom. This politicisation process also needs to be seen in the wider context of the pressure on all civil society institutions. Under contemporary conditions they appear to face a stark choice – to be subordinated to the State or to be incorporated in the market.

University researchers may also find themselves having to compete with the new kinds of 'knowledge' institutions which have been mentioned earlier in this chapter – notably think tanks and management consultants. That these new knowledge institutions often tend to be evidence-lite but advocacy-heavy, once seen as a disadvantage, may have been transformed into an asset – in terms of time-scales and responsiveness to clients' 'needs'. In contrast, university researchers may appear to be handicapped by the need to collect reliable evidence and be ideologically neutral (or, at any rate, less visibly partisan). Of course, there have always been well-established links between biosciences research, the health sector and the pharmaceutical industry, between engineering research and the industrial sector, between chemistry and the chemical industry (and, especially in the United States, links between university research and the military). But now the social sciences have been forced to establish similar links and undertake more and more policy-based research and evaluation studies (often, as has been indicated, on a short timescale, and with constraints on 'acceptable' findings), which has reduced the scope for critical social science research. Even the traditional humanities are being drawn in, as partners with cultural regeneration plans and the development of the so-called creative and cultural industries.

Culture and Identity

Universities, of course, have not been passive spectators of these shifts in culture and identity. They play a major, even decisive, role in shaping new identities. The fact that so many more people are now enrolled in higher education has meant that a 'graduate' culture has developed in most developed countries. As has already been indicated, graduates now have to confront a much more fluid and ambiguous labour market; for many there is little prospect of 'respectable', linear, life-time careers. But their experience of higher education, and the very fact that they are graduates, confers on them a social status and a degree of cultural capital. In fact, some experience of higher education is rapidly becoming a prerequisite for full participation in advanced societies, as citizens as much – or more than – as workers. Conversely, of course, non-graduates are more categorically deprived than in the days before mass higher education – and there are also decisive gradations of opportunity between graduates from elite universities and those from other higher education institutions.

But there are other consequences that are almost as important. First, as organisations, universities themselves have to grapple with the contradiction between the forces of de-institutionalisation (and even de-construction of traditional organisations) and the counter-forces of corporatisation. This contradiction, or at any rate tension, is played out in more detailed debates about the future of university

governance and the rise of a management 'class' within higher education institutions (Deem et al. 2007). The same contradiction can be observed in the pressure on universities to become strong 'actors' now that national State-directed systems of higher education are in decline and they have been granted greater – operational – autonomy (Huisman 2017).

Students, too, have to struggle to accommodate new roles. Are they 'consumers' of higher education, to be 'satisfied' in the same way as other consumers? Are they inputs into productive labour? Are they seeking enlightenment, and thereby self-realisation? At the same time students, of course, experience the tension between the traditional economy of university education – courses, lectures, examinations – and a new emerging ecology driven by 'individualisation' of delivery (and the disruptive power of social media).

Students – and academic staff – are also caught up in the 'identity' wars of the twenty-first century. In the last century they marched to protest injustice and inequality, or even to establish their universities as 'red bases'. Students in the twenty-first century are more likely to campaign for 'trigger' warnings before lectures or to impose 'no platform' bans on speakers who seem to threaten their identities, and to remove statues of (or change the names of buildings named after) long-dead and until recently largely forgotten historical figures. New forms of activism are emerging, for better or worse, that resonate with these new constructions of identity. University leaders and managers must now walk a tightrope between the possibility of provoking their students, newly sensitised by 'identity' politics, and the probability of annoying politicians, in thrall to 'media' politics.

Universities are seen as prime sites on which global identities and cosmopolitan values are forged. In some senses they celebrate that status, as beacons of social and cultural experimentation and economic innovation and enterprise within 'clever cities' (Florida 2014). But, in another sense, it leaves universities exposed, not simply to the backlash of an anti-cosmopolitan populism but also to the charges that they have abandoned our local, civic and community responsibilities to pursue their ambitions as 'world-class' institutions operating in a global knowledge economy (especially when those ambitions are largely expressed in competition for higher 'grades' in global league tables).

Universities in the Twenty-First Century

The past half-century has witnessed the largest ever expansion of higher education in the long history of the university (Marginson 2016). Since 1970 the world's Gross Tertiary Enrolment Ratio (GTER) has increased by a factor of more than six (6.12). The increase in some countries has been remarkable. In China the GTER has grown from under 2% to more than 30%.

Two aspects of this headlong growth are particularly interesting. The first is that the most rapid growth took place in the second rather than the first half of this

period, counterintuitively perhaps to those who imagine the establishment of mass higher education was an achievement of the, now receding, past. The world GTER only increased from 10.1% in 1972 to 14% in 1992. In the next two decades it more than doubled to 32%. Part of the explanation is the spectacular growth of higher education in China, India and other Asian countries, which has occurred more recently – with the interesting exception of Japan, where growth patterns have been more similar to those in North America and Western Europe. In these world regions which possessed the historically most mature higher education systems, expansion took off in the 1960s. This process of 'massification' was closely linked to social welfarism. In the rest of the world growth did not take off until the 1990s. This development of so-called 'high participation' higher education systems, therefore, took place at a time when neoliberal ideas and market practices had reasserted their dominance. But even in North America and Western Europe growth accelerated after 1990. Despite the development of what were technically mass systems, higher education in these regions retained many elite characteristics until almost the end of the twentieth century. Only in the past two decades has the full impact of expansion on academic values and organisational structures become plain.

The second is that the expansion of higher education far outstripped both population growth and growth in GDP. While the GTER increased more than six-fold between 1970 and 2013, the world's population only doubled (1.93), and world GDP increased by less than four times (3.63) over the same period. This suggests that economic factors – changes in occupational and professional structures, upskilling, credentialism and other aspects of labour market 'pull' – are not in themselves a complete explanation of the spectacular growth of higher education. Social factors must also be taken into account, such as the expansion of school systems and the increasing supply of well-qualified candidates, the explosion of the middle classes (and of the ambitions and aspirations once confined to a narrower elite) and, in particular outside North America and Europe, large-scale urbanisation. Cultural factors have also played a part, including the immediacy and availability of global ideas, images and brands. The existence of well-developed higher education systems, of course, has been a powerful attraction.

Two conclusions can be drawn. The first is that explanations for the expansion of higher education must be sought within deep socio-economic structures, regardless of the more ephemeral glosses of ideology. Growth rates appear not to have been influenced by the predominance of either social welfarism or neoliberalism. This suggests that familiar arguments, and current controversies, about the relative merits of free higher education funded by general taxation and cost-sharing between users, i.e. students, and other stakeholders such as the State and employers may not be as fundamental as is sometime supposed. More disturbingly perhaps, it may also suggest that the links between higher education and democratic empowerment may not be so significant either. The second conclusion is that purely economic factors, focused on notions of building human capital (and rates-of-return to individual graduates, often used to justify charging fees), are also not a sufficient explanation.

Instead other, social and cultural, factors must be given their proper weight. These factors, in broad terms, can be described in terms of a 'Mode 2' society.

Mission Stretch

Universities have always had to balance their critical educational responsibilities with more practical and instrumental goals, traditionally combining academic education, scientific research and professional formation. Many universities (perhaps most) were established with specific goals in mind – to educate cadres of public servants, to train technical experts, to reproduce social and political elites. What is new is this ever-widening mission stretch that all universities now experience. New kinds of wider-access and more teaching-oriented universities have been developed, and selective and research-intensive universities are now embedded within much more extensive higher education (or post-secondary) systems. But often it has proved to be difficult to impose a clear division of labour. Traditional hierarchies have dissolved, and more formal stratified systems have been slow to develop.

Attention has often been focused on so-called 'academic drift', the tendency of newer universities and other higher education institutions to aspire to behave more like the traditional universities – although this cannot be explained solely in terms of institutional ambition. Equally important have been the growing sophistication of the skills needed in the newer professions and by intermediate workers and the development of more open knowledge systems and the wider distribution of knowledge production – and, of course, the imposition of standardised funding and accountability regimes. Much less attention has been paid to the reverse phenomenon, the tendency of traditional universities to take on new roles. Although elite universities are happy to endorse stratification measures that confer prestige by reinforcing the privileged status of their students and concentrating more funding (especially for research), they have been much more reluctant to identify roles they have no interest in or are willing to give up. The result is that nearly all universities have now adopted comprehensive missions, leading to increasing degrees of internal differentiation – which explains the curious absence of, or resistance to, diversity across institutions.

As a result, the key challenge facing the twenty-first century is how to manage 'difference' within the university. The consequence of this 'mission stretch' can be observed in how universities work as organisations and also in their core business, teaching and research.

Governance and Management

In the past, when the predominant business of universities was academic and scientific in a relatively constrained sense, it made sense that senior academics should have a major role in establishing priorities. Now, with a much wider range of much more heterogeneous objectives that argument has been weakened – which helps to explain the drive to give people from outside the university, especially from the economic sector, greater influence in governance (and also, partly, the shift from collegial norms to more managerial practices). But there is another reason for this shift from collegial norms to managerial practices. Once the organisational culture of most universities could best be described as collegial-bureaucratic – in other words, strategic decisions were the domain of academics (with more junior academics given a greater say as a result of the semi-democratisation of universities starting in the 1960s and 1970s) and operational decisions taken according to administrative rules. Now many universities have moved to more corporate styles of management (and, to a lesser extent, governance) based more on the management of private-sector enterprises (Slaughter and Rhoades 2004). One of the most fundamental results of this shift is that metrics, rankings and performance indicators, have taken over from more traditional normative and collegial definitions of 'success'.

Teaching and Research

The impact of mission stretch can also be observed in changing concepts of teaching – now generally (and revealingly) labelled 'learning and teaching'. Although more pronounced in some countries than others, there has been a pronounced shift to redefining students as 'customers' – hence the increasing emphasis on the 'student experience' and 'student satisfaction' and, in more extreme cases, as 'consumers' in a higher education marketplace. The new but ubiquitous language of 'quality culture' probably owes as much to these consumerist dynamics as to the drive to increase academic standards.

Also, the re-labelling of teaching as 'learning and teaching' has two far-reaching implications – a reinforced emphasis on peer-learning and co-learning as important, and a widening of the scope of 'learning', once regarded as focused predominantly on professional and personal relations between students and teachers to embrace a much wider range of university employees – library staff, IT staff, counsellors. As a result, what were once treated as essentially private exchanges – metaphors of the 'secret garden', the 'private life' of the university once abounded – have now become systems that can, and must, be 'managed'. This growth in the number of hybrid and para-academic roles in the modern university is at least as significant as the growth of purely managerial roles, although it has perhaps received less attention (Whitchurch 2013). This has led to important changes in the role, status and autonomy of university teachers.

Similar – indeed, more pronounced – evolutions have taken place in research. New languages have developed – of 'strategy' (at the institutional level); of 'management' (of the performance of individual scholars and scientists, and research groups); of 'impact', now explicitly measured in some national research assessment systems such as the Research Excellence Framework (REF) in England; and also of (world-class – inevitably!) 'excellence'. And a new landscape has also come into being, in which the project (the funded research programme) now shapes both the timescales of scientific and (to a slightly lesser degree) scholarly production and also the trajectories of research careers (Felt 2017). The overall effect may have been to erode the links between teaching and research, traditionally regarded as organic, because a growing proportion of the academic workforce is made up of researchers who have more limited prospects of pursuing more generic academic careers.

Social Purpose

Finally, the twenty-first-century university has been obliged to forge new definitions of 'social purpose'. The neoliberal age may be entering the twilight, but its erosion of traditional ideas of public service and public duty and its subversion of the boundaries between public and private domains, whether at an institutional or individual level, remain the current realities. That poses the contemporary university its greater challenge – how to recover a sense of 'social purpose' that makes sense in forward-looking terms rather than as an irrecoverable Arcadia. Such a recovery will be accompanied by many difficulties. Indeed, 're-invention' may more accurately describe the radicalism of the task. The twenty-first-century university, not entirely unjustly, has been linked with global elites, chilly technocrats, amoral experts. This challenge, therefore, is how the university can move from corporate enterprise to democratic engagement.

Put most simply, the urgent task before us to reinforce, and maybe reforge, the links between higher education and democracy which, perhaps too complacently, was taken for granted in the twentieth century in the age of mass higher education, now drawing to the close. The twenty-first century university needs to be an open institution – spatially, by opening up closed-off, policed corporate-like academic precincts; scientifically and academically, by embracing open knowledge systems and welcoming new (and challenging) knowledge traditions (and rejecting the exclusionary and hierarchical tendencies of performance and ranking regimes – and, maybe, the seductive discourses of 'excellence' and 'world-class'); and socially, by meeting the needs of everyone, not just of enlarged elites.

Conclusion

At the start of this chapter two different modes of discourse for thinking about the future of higher education were contrasted – the dominant discourse of markets, managerialism and technology, and other more reflective discourses that focus on deeper social structures and cultural formations, and also scientific and wider intellectual change. One reason perhaps for the continuing dominance of the first mode, despite its obvious affinities with decaying neoliberal ideology, is that there are just too many alternatives – two of which were mentioned in the introduction and one of which, the idea of a Mode 2 society, has been the major focus of this chapter – and also that they have to been expressed in sufficiently accessible and persuasive terms. This plethora of alternatives underscores the need to develop a new compelling language of higher education, to replace both the concept of massification as the dominant organisational framework and also the ideology of neoliberalism as the dominant policy – and normative – narrative (Scott 2017). To imagine a new future, and to build a better one, it is first necessary to be able to describe it.

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Chapter 8
Universities and 'Accountability': Lessons from the UK Experience?

Stefan Collini

Introduction

The focus of this volume on the theme of universities' 'missions' already foregrounds questions about the relationships between universities and their wider societies. Although several of the contributions illustrate the differences among the national traditions of higher education across Europe and North America, it is undeniable that there are certain common forces at work today across all these systems, especially in terms of the increasing demands and expectations that societies have of their universities. In most European countries, the majority of universities are dependent, directly or indirectly, on public funding, and so with that comes the requirement that such institutions must be 'accountable' to society for their use of such funds. In itself, that seems both an entirely legitimate and a practically innocuous proposition, but in this chapter I want to draw attention to some of the potentially damaging consequences of the politically most fashionable ways of interpreting this idea.

I shall take my examples from the United Kingdom where, I would argue, the combination of a market-fundamentalist ideology in politics, a managerialist revolution in the provision of public services, and a consumerist relativism in public opinion has resulted in 'accountability' being given a particularly damaging twist where universities are concerned. But I would strongly suggest that this is not merely a parochially British story: most other European systems have not gone so far in this direction – yet, but the signs are that broadly similar developments may be expected across the continent in the coming years. (Commentators from several continental European countries have recently remarked on the 'rapid pace of adoption of an Anglo-Saxon model of higher education' [Weber and Duderstadt 2014, p.171]) To repeat a metaphor I have used before, where the future of national

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systems of higher education is concerned, British universities may function as the canary in the mine – the creature used to detect the first signs of deteriorating air quality underground. And I have to tell you that I think the canary is showing signs of alarmingly poor health.

Much the greater part of public discussion of higher education in Britain in the last few years has been focused on methods of funding, especially the replacement in England and Wales – though not, of course, Scotland – of public funding of teaching by student fees. There has been much less discussion of the kinds of change that have transformed universities internally over the past two or three decades. The lack of public attention to this transformation is not altogether surprising. This is not the kind of single-event change that generates headlines: it takes place by apparently small steps spread over several years and is nearly invisible to the outside eye.

But the truth is that the character of British universities, and particularly the experience of being a member of the academic staff of such institutions, has been radically and systematically altered in a remarkably short period of time, yet it has provoked comparatively little analytical attention or wider criticism. Oxford and Cambridge may have been somewhat less affected by these developments than most other universities, yet even so it is a striking index of the scale of the changes involved that a recent calculation shows that, at Cambridge between 2002 and 2017, while the numbers of academic staff increased by 8%, the numbers of administrative staff increased by 131% (Reporter 2018). The entirely legitimate demand that universities be accountable to society has, in conjunction with certain other features of the contemporary political climate, resulted in the growth of a particular kind of audit culture that is having very damaging unintended consequences. I realize that those who concern themselves with the future of universities in other European countries have been watching these developments with considerable interest, not least because they may quite reasonably fear that some of the market-oriented experiments being carried out on British higher education may soon be arriving in their own countries, if they have not already. For that reason, this chapter focuses on the lessons that may be learned from the UK experience.

The Generalization of the Consumer Model

Universities change as societies change, but never as a simple and direct reflection of those changes: the relationship is always more dialectical and indirect. One way to characterize the transformation of much of the developed world in the past three decades is to say that we have moved from having market economies towards being market societies, as more and more domains of life have been re-shaped on the model of market competition for profit. This is a large topic, and there is no room here to dwell on the different elements in the mix (which have differed across countries), but it seems to me too simplistic to suggest that this is the straightforward outcome of the imposition of a single ideology, usually called ‘neo-liberalism’. There have also been several other types of social change happening that are not all

attributable to one particular form of political economy, however powerful. The decline of deference, the erosion of trust towards professions, the empowerment of certain kinds of populist relativism – these all have a complex aetiology and have had their own impact on the public discussion of universities. Similarly, it is important to emphasize that some of the application of the principles of so-called New Public Management in public services is actually far more dirigiste than it is the expression of pure free-market principles. Nonetheless, it is indisputable that in the past two or three decades governments in Britain and elsewhere have increasingly treated universities as institutions whose 'performance' can primarily be improved by subjecting them to a particular form of market competition, or at least to some simulacrum thereof, and then measuring the results in various ways.

One feature of these changes that is particularly relevant to my theme but is perhaps too little noticed is the way in which the generalization of the consumer model, which is entailed by the metaphor of the market, involves an agnosticism about human ends and a consequent downgrading of reasons as opposed to preferences. This promises to bypass all the difficult judgements about some human activities being more worthwhile than others, and simply allows the mechanism of consumer choice in a market not just to determine outcomes but also to confer legitimacy on them.

Its strength, of course, is that no individual or group is seen to be dictating to others what they ought to want. Its weakness is that it makes it harder for public discussion to address the question of whether some purposes may be humanly more valuable than others. Instead of reasons, therefore, all we have are opinions, which are treated, and derogated, as 'merely subjective'. Between them, subjective 'opinions' and objective 'data' are increasingly held to exhaust the acceptable elements of public debate. As Andreas Schleicher, the man behind the controversial PISA tables of school attainment was quoted as saying recently: "Without data, you are just another person with an opinion." (Wilby 2013) The fact that such a statement was allowed to pass without any critical comment indicates, I think, how contemporary public debate tends automatically to relegate anything that is not quantifiable to the status of subjective 'opinion'.

Hence the fetishization of metrics and benchmarks. As the American historian Jerry Muller puts it: "The quest for numerical metrics of accountability is particularly attractive in cultures marked by low social trust." (Muller 2018, p. 40) There is now an extensive literature on the unintended consequences and even self-defeating characteristics of many of these measures. Several of the examples illustrate two celebrated aphorisms on this topic.

First, there is 'Campbell's Law', named after the American social psychologist Donald T. Campbell, which states: "The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor." (Campbell 1979, p. 85) There are countless recent examples of this truth, notably the scandal in school systems in the United States and elsewhere of teachers falsifying their students' exam results to improve their school's metrics.

The other celebrated dictum is the anthropologist Marilyn Strathern's reformulation of a familiar critical point: "When a measure becomes a target, it ceases

to be a good measure." (Strathern 1997, p. 308). In other words, initially you set out to measure how much people like doing activity X; then you set a certain figure as the number of times people should aim to be doing that activity, or else there will be penalties; thereafter, that indicator only tells you that people are now doing what they have been more or less forced or induced to do. "The result is goal displacement, where the metric means come to replace the ultimate ends that those means ought to serve". Muller (2018) has assembled many illustrations of these truths, the most chilling of which concerns the introduction of surgical report cards in some states in the United States in the early 1990s as a way of rating individual surgeons' efficiency and hence their salaries. This created a pressure to operate only on categories of patient with high survival rates and to neglect the, possibly needier, others. As Muller drily summarizes the outcome: "More patients died, but the metrics improved". (Muller 2015, p. 7).

The extension in the course of the 1990s and the 2000s of New Public Management techniques to all forms of provision led to what has been termed 'the reporting imperative', defined as "the perceived need to constantly generate information, even when nothing significant is going on". These procedures inevitably engendered numerous externalities in excess of the goals aimed at. One has been the sheer scale of the machinery and cost involved in devising ways to collect evidence of efficiency. Another has been the increased availability of and reliance upon quantifiable data. But another, less noticed, change has been entailed by the shift of attention from specifying aims to measuring outcomes. This shift has, in many areas of life, given rise to an enhanced emphasis upon the perceived satisfaction of those who are meant to be the beneficiaries of a given service.

This in turn adds significantly to the burden of data gathering, as Helen Small has argued with reference to universities (Small 2013, p. 543), but it also entails finding a way to replace judgements of worthwhileness with the quantitative measurement of end-user satisfaction. All citizens undergo compulsory role-reassignment and emerge from the process as consumers. Surveys and polls obsessively record what percentage of a target population are 'very satisfied', 'satisfied', 'not satisfied', or 'don't give a monkey's'. This is what accountability now largely means in relation to any form of public provision, but it is, I think, particularly problematic when applied to universities, and attempts to give effect to this requirement where matters of intellectual quality are concerned involve a significant shift away from the implicit acceptance of the relevant degree of professional autonomy upon which universities had previously relied.

Asking users of, say, a given rail service whether they are 'satisfied' with the punctuality or cleanliness of the trains may yield information that can be both quantified and moderately useful. Asking 'users' of a higher education system if they are 'satisfied' with the quality of education they have received is likely to produce either responses that are quantifiable but of little use, or responses that may be relevant to the activity but are not quantifiable – and anyway, it is not clear that the category of 'users' applies in such a case. Are the parents of students 'users'? Are employers?

Are those bodies who compete for young citizens' votes, or those concerned about the level of public debate or cultural provision? All of society is in some way or another potentially an interested party here. But, more fundamentally still, is 'user satisfaction' a relevant way of assessing how effectively the purposes of education have been achieved? User *dis*satisfaction may sometimes be an important sign that genuine education is happening.

And, taking up the most contentious aspect of the question, how should this version of 'accountability' be made to work in the case of those intellectual activities we currently classify as 'research'? Universities are pressed to show that society is getting 'value for money' by investing millions in the research activities of its academics. But how to argue for this expenditure in the face of the allegedly quantified benefits of spending those millions instead on building roads or hospitals or aircraft carriers? We here start to enter territory where there is always likely to be some tension between the short, easily intelligible, and often quantifiable case required for public debate in a market democracy, and the more extended and indirect case that may be needed in order to give an adequate characterization of the central purposes of universities.

It should go without saying that it is entirely proper for those societies that invest considerable sums of public money in universities to want to be provided with some reasoned justification for this expenditure. In what I say here or elsewhere, I am not assuming that academics should be exempt from that wholly legitimate expectation. But – and this ought to be equally obvious – that reasoned case must be couched in terms that actually capture what is distinctive and valuable about what universities do. However, the terms and temper of contemporary public debate make it difficult to articulate that justification in ways that those who largely shape attitudes in the media and policy-making worlds assume will be acceptable to most of their audiences and electorates. In a public culture that is so sensitive to the prejudices of the right-wing popular press, there is a very great and easily mobilized hostility to anything that can be represented as professional-class welfare-sponging. No matter that the corporate and financial elite creams off unimaginably greater proportions of what should in some senses be seen as public wealth, any group which can be represented as combining direct receipt of public funds, historic cultural capital, and some form of professional autonomy is going to come in for a good kicking, whether they be academics, directors of national theatres and museums, BBC producers, or Members of Parliament.

This popular interpretation of 'accountability' means, therefore, not just democratic answerability or demonstration of proper stewardship of public funds. Insidiously, it comes to mean – though this is never made explicit, of course – that the working conditions within these professions should be made to correspond more closely to those recognizable to the majority of the working population in society at large, regardless of whether those are the conditions favourable to high-quality work in those fields.

Excellence in Academia

The issue of the *quality* of intellectual work is bound to be a vexed one in a culture of accountability because it necessarily involves the exercise of informed judgement in place of purportedly objective measurement. Our society's solution to this problem can be expressed in a single word, a word that is in danger of becoming so naturalized as part of our discourse that we no longer even notice its fatuity. In practically every official statement or document issued by practically every university explaining its aims or its 'mission', you will encounter that institution's 'commitment to excellence'.

It is worth pondering the semantic range of 'excellence'. Roget's thesaurus rightly gives two clusters of near-synonyms: the first refers to those terms that indicate that something is 'good of its kind', and the second to those that suggest it is 'better than the others'. Excellence connotes *both* fulfilling the telos of something (it is, for example, sometimes given as a translation of the ancient Greek term *areté*), but also excelling, rising above, being outstanding. In all ordinal scales of evaluation, we ascend through 'satisfactory' to 'good' to 'very good' and on to 'excellent' – the best. So, 'excellence' totters unsteadily between being part of an Aristotelian tautology – to attempt to fulfil any purpose is to attempt to exhibit the excellence appropriate to that activity – while also smuggling in the notion that it involves coming out top in some form of competition.

No determinant meaning can be ascribed to the claim that a university is 'committed to excellence'. Every institution presumably thinks that ideally it should be trying to do whatever it does as well it can. Of course, it is 'committed to excellence': what else could it be committed to? Imagine the alternative statement: 'Only a university committed to mediocrity in both teaching and research can attract the losers of tomorrow. Only universities vigilant about constantly lowering standards can hope to flourish in the global competition to do rather badly.' But though strictly meaningless, the use of 'excellence' and similar bits of patter does have a function: it signals that the university accepts the sovereignty of the current cant, especially the dominion of audit populism. Its public-relations people and the corporate world's public-relations people are, in another favoured cliché of our time, 'singing from the same hymn sheet'. And it not only signals acceptance of the coercive fiction of competition – we try to excel, to beat the others, to win – but, implicitly, it also signals acceptance of the conventional forms of the measurement of achievement.

This is the great unspoken about 'excellence': since it is entirely devoid of content in itself, its presence can only be demonstrated by some quantitative evidence recognized by outsiders. To be 'committed to excellence' serves to announce that your institution will act as though there were some genuine value in being ranked in, say, 'the world's 100 top universities' or ranked in the 'top 10' in the REF, and so on. Yes, says a university – or at least its 'senior management team' speaking on behalf of the university, says – we believe in excellence, and so we will with conviction submit ourselves to these exercises and strive to do well, to excel, by their

criteria. We are 'team players'; we are 'serious about making a contribution to society'; we understand the 'need to be accountable', we accept the need for 'objective performance indicators' – all this, I suggest, hovers around the ubiquitous discourse of 'excellence', numbing us into not noticing how far we are from a modest and accurate account of the defining activities of a university.

The Paradox of Management

The mentioned cluster of issues also illustrates what I would call the 'paradox of management' within universities. The more dirigiste forms of university administration are bound to be endlessly frustrating for the administrators themselves, since they cannot compel or otherwise bring about the production of the thing that matters most – intellectual quality, whether in teaching or scholarship or research. They are therefore encouraged by society to expend their considerable energies on schemes which they can control – forms of surveillance and assessment which have the appearance of ensuring that the objects of a university are being properly pursued, but which are in reality simply external indicators of the managers' inability to control intellectual quality.

Society demands accountability, but from the more mechanical expressions of this demand all it gets is the external show of accountability, and this highlights a broader distinction between administration and management in universities. A good administrator helps to put in place the conditions in which academics can teach and think well in ways they judge best. A poor manager exacts compliance from academics in procedures, which are proxies for the real business of teaching and thinking well. Good administration, good financial management, good maintenance of buildings, and much else are all vital to the good functioning of universities, but the inescapable (if potentially unpopular) fact is that the academic staff are the ones whose primary activities are constitutive of what is *distinctive* about these peculiar institutions. Consequently, the most lavishly funded and most efficiently run university, which has largely fourth-rate academics will remain a fourth-rate university.

There is an uncomfortable truth here, uncomfortable for academics as well as everyone else. Uncomfortable in part because intellectual quality and creativity cannot be programmed, but uncomfortable also because the ultimate standing of even the best-run institution depends on factors that are partly not under its control. After all, good intellectual work is not the product of one university or even one generation alone. It depends upon, among other things, those intangible ideas and standards that clever graduate students absorb almost by osmosis from the publications and conversations of their seniors and peers in disciplines that spread across institutions, across countries, and across generations.

A new or up-and-coming university can try to hire a few of the best people in a given field if it has the resources and can promise productive conditions of work, but it cannot, *by itself*, make the field an exciting one, or make the star recruits continue to do good work, or produce their successors. In addition to being part of, and

dependent upon, wider intellectual worlds and disciplinary traditions, strong universities are those that, having established over an extended period of time a reputation for high intellectual quality in the main academic disciplines, actively sustain an ethos that supports creativity and autonomy, thereby continuing to attract the best academics and students. In all of this, those clever graduate students I mentioned know, intuitively, what matters. I am willing to bet that no intellectually ambitious would-be graduate student ever applied to study at a particular university because he or she had heard that the institution boasted an outstandingly good Quality Assurance Unit.

This is where the category of managerialism becomes particularly relevant. All enterprises and institutions have, of course, to be run and run as effectively as possible. We talk of 'managerial*ism*' when the procedures, values, and interests of those charged with running an institution take priority over the purposes for which it is supposedly being run. Moreover, managerialism requires, not long familiarity with the knotty particularity of a single institution or group of people, but rather with the processes that can be applied across all such institutions as managers move from post to post, and metrics are the indispensable means of making different activities in different universities uniformly manageable. Developments within universities over the past couple of decades have clearly pushed them quite a long way in this direction. In most British universities (Oxford and Cambridge may, as so often, be partial exceptions), there has been a cumulative reduction in the autonomy, status, and influence of academics – in governance, in research, and in teaching. In some respects, academics themselves have colluded with these changes in that the overwhelming priority now given to research achievement in career progression means that it is increasingly difficult to find senior academics willing to take a turn in the higher administrative offices of their university and then return to a career of teaching and research.

As we know, over the past two or three decades there has been a dramatic downgrading or even elimination of anything like academic self-government: faculty senates have been abolished or bypassed, and we have seen a vast expansion in a cadre of professional managers who come over time to have their own aspirations and career paths. In addition, the greatly increased casualization of the teaching force in universities not only saves money but it also reduces the institutional voice of the established academics and increases the power of the manageriat. And so, indirectly, does the current regime of research assessment. It should be obvious, but it may be worth underlining, that everything that tends towards greater 'performance management' increases the power of the managers.

Managerialism operates through various mechanisms, not just by means of direct command. Thus, both externally and internally an older pattern of providing long-term funding in ways that are most conducive to good intellectual work has been largely replaced by a system of artificially contrived short-term competition for the necessary resources. Stable and adequate, if limited, funding is derided as extravagant featherbedding inimical to innovation. Systemic under-funding plus competition and punitive performance-management is seen as lean efficiency and proper

accountability. A recent report showed that academic staff in many British universities are now set annual targets for the amount of money they *must* each bring in from external grant applications. No matter that much research, especially in the humanities, does not require lavish expenditure on equipment and postdocs; no matter that the rate of success in some grant competitions is currently running at 12% and so the great majority of applications are wasted effort; no matter that constantly inventing and then managing large research projects may be more likely to obstruct than advance a scholar's capacity to do interesting work – despite these and many other telling objections, the manic search for quantifiable measures of intellectual quality, turns, in accordance with prevailing economistic prejudices, to money as the most reliable metric and proxy. This results in careers, and even in some cases continuing employment itself, being determined by the mechanical application of such targets.

And then there is the fallacy of 'continuous improvement'. If the only publicly acceptable way to attend to questions of quality is by means of annual measurement against a quantitative benchmark, the imperative to so-called continuous improvement becomes both self-fulfilling and self-contradictory. The logical conclusion of such a process is obviously a situation in which 100% of students get top firsts, 100% of staff get maximum external grants, and 100% of departments get 4∗ research ratings, and so on. Clearly, when that farcical moment is reached it will be time, as one particularly fatuous university advertisement put it recently, to 'go beyond excellence'.

Accountability and Measurement: Two Prominent Examples

The Request for Economic Impact of Research

I now turn to what are perhaps the two most familiar examples of the marriage between the demand for accountability and the drive towards forms of supposedly objective measurement. In Britain, the felt need to identify a demonstrable justification for public investment in research has issued in the requirement that university departments provide evidence of the non-academic social and economic 'impact' of their research. I have written about the characteristics of this exercise before (Collini 2012, Chapter 9), but I want to return to it briefly here precisely because it is such a telling illustration of the tension between the current interpretation of the imperative to accountability and the actual character and value of scholarly and scientific enquiry.

The Higher Education Funding Council's notion of 'impact' looks, at first sight, intuitively appealing: this, it suggests, will demonstrate where academic research goes beyond the narrow circle of fellow specialists to directly benefit the wider public. But in fact, given the way 'impact' is defined, what the exercise does, following a very expensive bureaucratic process and a huge expenditure of uncosted academic labour, is to assemble a great deal of detailed evidence of what are, in

many cases, incidental by-products or side-effects of such research. Remember, 'impact' is defined in such a way as to distinguish it not only from any shaping influence on other scholars or on students, but also from 'public engagement' – that is, academics explaining to wider audiences the interest and significance of their work. Such engagement seems to me clearly desirable and to be encouraged, though no-one, presumably, would think it could function as a criterion of the quality of the research itself. But impact involves something else and something that is *extrinsic* to the defining purpose of the research itself.

I speak with feeling here, having been in charge of preparing my department's submission for the 2014 Research Excellence Framework. Many readers may be familiar with the demands of this exercise, but let me briefly offer an actual example – an example, which, for obvious reasons, has to be anonymized. One of my colleagues is a leading scholar of the work of a nineteenth-century poet upon whom he has written some major studies. Partly as a result of a chance personal connection, in recent years he helped choose the exhibits, write the captions, and make other contributions for a display at a small museum devoted to this writer's life and work. I spent no small amount of time in 2011 and 2012 chivvying the poor staff at this museum. Could they supply visitor numbers? Sorry, could they please document those numbers in a publicly verifiable form? Did they have evidence of what visitors to the exhibition made of the experience? Did they ask them to fill in questionnaires, did they have a comments book? Sorry, could they provide extracts in a duly authenticated form? What was the evidence of the benefit the visitors derived from their visit? Sorry, I mean evidence of what the exercise calls 'change in their behaviours'? And so on.

Not only did this exercise consume large amounts of academic time and labour – remember it had to be repeated for all case studies from all departments in all universities in the United Kingdom – but it also put a considerable burden on all those institutions and members of the general public who were thought likely to be able to provide the looked-for evidence. When the results were finally made public in December 2014, it was entirely predictable that the government and the Higher Education Funding Council would claim that the exercise had been a resounding success. We were told that the great range of the impact of academic research on the wider society had been documented for the first time and that this would enable a much stronger case to be made for future public funding.

But is that really the case? These instances of effects or spin-offs that are in many cases incidental to the main aims of the prior scholarly or scientific research cannot provide the justification for the social value of *that research itself*. Moreover, they are presented as a significant element in the judgement of research quality, and departments are funded accordingly. But in reality these kinds of effects, even if desirable in themselves, as no doubt many of them are, do not testify to the *quality of the research* at all. My colleague's scholarship on this poet would still have been of the same high quality whether or not he had happened to be involved with this museum, let alone whether we could demonstrate beyond doubt that a 13-year-old visiting with a school party had written in the comments book that the exhibits were 'ace'.

'Impact', as this exercise defines it, is a proxy for the public value of the research, but it is not in reality a good proxy. It is not actually a measure of that value, but a measure of something else, something that is secondary, and in many cases contingent or incidental to the activity of doing good research, something the required evidence for which is bound to be unevenly and somewhat arbitrarily distributed among a given population of scholars. A department where the research has, often for purely accidental reasons, generated such by-products is judged to be superior in terms of the *quality of research* to one which has not, and this is surely the fundamental conceptual confusion in the exercise. The attempt to measure quality, when combined with the prevailing interpretation of 'accountability', results in measuring something that is not quality.

Indeed, one can see how over time the exercise will lead (indeed, appears already to have led) some departments to focus on securing this kind of 'impact' *at the expense* of primary scholarly quality. After all, these impact cases are all graded, and they contribute significantly to the 'score' each department is given which in turn translates into a place in a national league table as well as determining the award of public funding. The result is that something that may initially have been an incidental by-product of research becomes a 'target' to be aimed at since such significant financial and reputational goods depend on doing well – and it is here that the two fallacies I mentioned at the start come into play. Many of the activities the exercise records may be admirable in themselves, but, to repeat, they are not a measure of the value of that research to society, and hence they *cannot* in fact provide a justification for public support of that research.

What this exercise (and the larger research assessment process of which it is a part) does do, of course, is provide data, and this allows for far more extensive and intrusive performance-management of academics by administrators and external bodies. The attempt to impose an easily measurable form of productivity can be represented as a minimal requirement of public accountability, though in practice it has far-reaching effects on the kinds of research undertaken or the shape of academic careers, and so on. Research assessment of this kind is a text-book example of the way in which the current notion of 'accountability' ends up re-shaping the character of the activity it is ostensibly designed merely to monitor.

Global Rankings of Universities

When I say that my next example concerns global rankings of universities, I anticipate that a flicker of impatience or even boredom may pass across the face even of the most well-disposed reader. The fact is that most people think they know that these rankings are flawed or limited in various ways, but they also think they know that such rankings nonetheless tell us something that is useful – and anyway, they are here to stay. But the current fashion for such league-tables is particularly revealing of the difficulties contemporary public debate has in coping with questions of

intellectual quality, and so is germane to my larger argument. By way of introducing my remarks, let me ask three short questions about these global rankings: (1) What do they actually provide reliable information about? (2) Whose interest is served by them? (3) Why do they persist even in the face of quite devastating criticism? In practice, it is not so easy to answer these questions, but even simply to ask them is to reveal something important about the current relationship between universities and society.

The first point, not seriously denied by anyone familiar with these league-tables, is that the attempt to provide quantitative measurements of quality, and then arrange them as an ordinal ranking, has to use a series of proxies for what it purports to be measuring. For example, the number and level of higher degrees possessed by the academic faculty of an institution has sometimes been used as one proxy for educational quality. In this case there may well be some correlation between the proxy and what it stands for: it can say something about the recruitment of faculty in lower-level or teaching-only institutions, though it tells us little about differences among the more highly regarded research universities where doctorates are now pretty much universal. But faculty salaries, another proxy sometimes suggested for this purpose, do not even exhibit this minimal correlation with quality of teaching or research. One could even facetiously suggest that there is more of an *inverse* correlation: younger and less well-paid faculty may tend to put more into their teaching than older and better-paid colleagues, but that only shows that this is a defective proxy. In any case, national variations in pay and standard of living make this an unviable proxy in international comparisons, and within national systems it is difficult to make adequate allowance for the different salary scales of public and private institutions, proportions of highly paid medical and legal faculty, and so on. Where such a proxy is relied upon (different ranking systems use different proxies), it represents the transposition of a pure piece of market ideology which maintains that higher prices are generally an indication of higher quality, but there is no good reason to accept that dogma.

A second defect that is more damaging than is commonly recognized is the use in some rankings of one or another form of 'reputation'. Here the undeniable fact is that no one respondent can ever have first-hand knowledge of the work in their own discipline of more than a tiny handful of departments among the many hundreds of universities being ranked. This does not mean that there can be no comparative judgements of any kind. It is possible that an experienced senior professor of early-modern Swedish history may have a reasonable idea about the general level of the quality of work in the few institutions in his or her country which sustain this field. But even if there were agreement that that professor was sufficiently informed and sufficiently judicious, there would still be no reliable way to convert those judgements into a numerical scale, and no basis whatever for making reliable judgements about other aspects of those departments' work in other areas of the discipline, let alone the work in different fields in history departments in other countries, and so on. On this scale, no judgement about quality can be both reliable and comprehensive, and even the somewhat reliable and severely limited local judgements cannot usefully be given quantitative expression. What the reliance on this proxy does is

create a circularity whereby respondents rank institutions in part on the basis of impressions acquired from reading accounts of previous rankings.

Thirdly, and this really is fatal, all attempts to produce a single ordinal ranking have to make decisions about the relative *weighting* to be assigned to the different proxies measured. Do you make 'student satisfaction' (itself a clumsy proxy for educational quality) 15% of the overall total or, say, 20%? As careful statistical critiques have shown, small variations in such weightings produce dramatically different results, catapulting into the 'top ten' institutions not previously included in the 'top fifty', and so on (Gladwell 2011). There is no neutral or agreed way to weight the different components. Every decision – and the various global league-tables embody many such decisions – necessarily favours one type of institution or one national tradition over others. It is bad enough that the attempt to rank a single factor such as the quality of teaching or research across all types of institution is hopelessly flawed, especially since these institutions reflect various social conditions and cultural traditions. But the attempt to convert the already flawed ranking of widely disparate and incommensurable factors into a *single* numerical sequence when there is no agreed way to determine the proportion each factor represents is – to employ an under-used critical term – surely bonkers. Moreover, the idea that the qualities supposedly being measured may change significantly on an annual basis (as is required to enable each year's tables to grab the headlines) further indicates the deep disconnect between the measurement system and what it purports to be measuring.

And finally, rankings are a further form of zero-sum game; one institution cannot go up without another going down. This encourages the same irrational gambler's attitude as the lottery. Every player in the lottery has to believe not just that they will be luckier than their fellow-players, but also that their own chief incentive to play is predicated on others' misfortune. Only if enough people lose their bets will there be a huge prize for the winner. Few things do more to poison what ought to be the cooperative and collegial relations among universities, either in the same system or internationally.

But even when all this is said and demonstrated far more conclusively than I have room for here, an intelligent and reflective and broadly sympathetic reader is still likely to take away the impression that I am exaggerating. Surely, you may say, these league-tables do, despite all their defects, tell us at least something worth having. After all, they do consistently show us that Harvard and Stanford and Oxford and Cambridge are among the world's top half-dozen universities, so they are broadly right about that. But we can only think they are 'right' about that because we think that is something that we *already know*. And because we think, on that circular basis, that they are right about the ones at the top, we are willing to assume that they are roughly right about the difference between the university ranked, say, thirty-ninth and the one ranked fifty-first, though there is no rational basis for that conclusion. For the most part, the rankings give us pseudo-statistical tabulation of incommensurable proxies, inflected by impressionistic judgements which have been shaped in part by previous rankings. (See further Chap. 11).

There is more, much more, that could be said, but let me return to my three questions. First, "What do they actually provide reliable information about?" They

provide reliable information about those individual indicators, which can be meaningfully represented in quantitative form. They provide reliable information, for example, about how much different universities spend on research. That tells us something, especially about big science, even if not always what commentators assume it tells us. But they do *not* provide reliable information about whether one type of institution in country A is, in some meaningful comprehensive sense, 'better' than a different type of institution in country B.

The second question "Whose interest is served by them?" is not easy to answer. Obviously, in the first instance, those who make money out of them, including the sponsoring publications – sales of whose special issues are boosted, and who thus have an incentive to tinker with the weighting system to produce newsworthy shifts in ranking positions each year. Those universities that think they can turn the results to their advantage are very willing to cooperate, and they then confer a further legitimacy on such rankings by making selective use of the results when it suits them. Many managers are enthusiasts for such rankings because the statistics provide them with pseudo-objective evidence to be used to bully academics to improve their performance according to the indicators that the rankings employ. And everyone enjoys league-tables: they are easily assimilable and provide some of the vicarious interest that the statistical tabulation of all sports does. But, ultimately, they serve the interests of those who want their fellow-citizens to assume that these institutions can be ranked as accurately as sports teams so as to encourage the belief that outsiders can measure their quality in the same way they can measure the quality of the providers of any service.

The third question "Why is the principle of these obviously flawed rankings impervious to criticism?" touches on some very deep questions about a market democracy's distrust of reasons and judgements, as well as its superstitious belief that numbers somehow escape the perils of bias and subjectivity. The devastating criticisms that have been levelled at these rankings are, where not simply ignored, regarded merely as a stimulus to tinker with the metrics, whereas what such criticisms are really telling us is that the very project of producing a single global league-table is fatally flawed. But recognition of that truth might depend on wider acknowledgement of the fact that we cannot have a single ordinal ranking of most of the things that really matter in life, and there is little in contemporary public discourse that makes such acknowledgement likely any time soon.

Conclusions

As I have tried to indicate very briefly, there are forces at work in shaping contemporary universities that are more powerful and more pervasive even than the question of replacing direct funding with a system of fees plus income-contingent loans. Part of what we should have learned from the experience of the past few decades is that just as relative stability of funding is at least as important as the actual level, so the mechanism of funding can be as important as the source. The value of the

so-called 'arm's-length principle' lay in a recognition that the providers of the funding were not competent to create the conditions most favourable to good intellectual work. The premise of the currently fashionable form of accountability, at once panicky and dirigiste, is that the funding and assessment framework can be used to make universities contribute more directly to the prevailing conception of national needs.

It is often said that these arrangements are necessary and appropriate now that we are approaching a mass system of higher education, and that critics merely reveal their nostalgic longing for the days when the shared values of a social elite and the relatively small size of higher education permitted universities much greater autonomy. So let me, once again, make emphatically clear that I do not share any such nostalgic view, and I certainly do not believe in some past golden age of universities. But I am concerned that we should not short-change or cheat either the new generations of students or the wider public by re-shaping universities in ways that *reduce* rather than increase their value to society. Universities have to be partly-protected spaces in which the extension and deepening of human understanding has priority over any more immediate practical purpose, no matter how politically or economically desirable such practical purposes may be. That is not an old-fashioned or elitist conception of their role, and it is one that is perfectly compatible, as it has been throughout the history of universities over the past couple of centuries, with the task of providing students with the kind of education that will help them to flourish in later employment.

I do not pretend to have any simple answers to the problems I have briefly identified, but I do think that those of us who are academics need to do a better job of helping to make available a vocabulary and set of arguments that are more adequate to the task of characterizing the value of what universities do. We need to remember our wider obligations, but also that those obligations extend beyond the present. There is an understandable tendency for hard-pressed scholars and scientists – and of course there is no other kind – to assume that forms of university funding, governance, and assessment may come and go, but that as long as we are at least *partially* free to do the work we feel is important in the library or the lab, and as long as we can strike the spark of intellectual curiosity and disciplined enquiry in at least *some* of our students, then we do better to concentrate on these primary tasks and leave the larger structural and financial issues to others. But that assumption may now be false.

It is already the case, at least in Britain, that ill-considered changes to funding, governance, and assessment, and their sometimes quite unintended effects, have fundamentally altered not just the conditions in universities but the very sense of identity and relation to one's work. There is an insidious process by which we become what the categories we use every day tell us we are. It has, for example, surely become more difficult for academics in research universities, especially perhaps for those under 40, not to think that one defining indicator of how good they are at their job is their track record of obtaining external funding. I suspect there are few teachers in university systems that charge high undergraduate fees who do not come to feel, at least on some days, that another defining indicator of how good they

are at their job is the number of students who record that they 'like' their courses and get good marks for them. Perhaps soon there will be few scholars and scientists working under funding regimes that require evidence of a particular form of 'impact' who do not come to think that a third defining indicator of how good they are at their job is the number of instances of 'take-up' of their research by 'external users' that could bolster their department's 'impact statement'. These things matter not just for the harm and misdirection of effort they involve, but also because they exemplify a damaging loss of confidence in the central activities of universities on the part of those who are uniquely charged with carrying them out. I am not an optimist about short-term political change, but I do think that as academics we need to do a better job of explaining to wider audiences – audiences beyond universities but beyond narrow policy-making circles also – what universities are really for and why their true long-term value to society is increasingly jeopardized by the kinds of development I have discussed in this chapter.[1]

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[1] An earlier version of parts of this chapter first appeared in Collini (2017).

Chapter 9
The Socially Embedded American University: Intensification and Globalization

Francisco O. Ramirez

Introduction

The preeminence of American universities in multiple international rankings has led to their deployment as benchmarks in global educational discourse. An idealized model of the socially embedded American university is dramatized by 'world class' metaphors and disseminated by consultants without borders. The latter identify 'best practices' in the pursuit of excellence and portray these practices as portable. The message is that universities can learn to be excellent by adhering to these best practices, and further, that the boundaries between university and society should be more permeable, leading to greater flexibility with respect to funding, curriculum, governance, and other organizational dimensions.

For many universities throughout the world, this message calls for two fundamental changes. First, there is the change from being a state-shielded university, buffered from the influence of markets, group interests, and social movements in society, to becoming a more socially embedded one, very much subjected to social changes and their impacts (Ben-David and Zloczower 1962). Next, there is the change from relying on its national or cultural roots for its institutional legitimacy to becoming an organizational actor with goals and strategies for attaining these goals (Krücken and Meier 2006). Looking like a rational organizational actor increasingly becomes a source of legitimacy. These proposed changes are reflected in educational policy packages that call for greater flexibility as regards funding (multiple sources) and greater links to industry and the economy (relevance and impact) as well as stronger university leadership and performance assessment (oversight and accountability) (European Commission 2003, 2008). These proposed changes nudge universities in the direction of becoming more socially embedded organizational actors.

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American universities, though, were much more socially embedded earlier on, and thus more likely to earlier begin to look like organizational actors. The more permeable boundaries between university and society necessitated boundary management and thus facilitated the rise of universities as organizational actors in the American academic landscape. That is, American universities developed organizational goals and strategies for attaining these goals long before their counterparts elsewhere (Cohen and Kisker 1998). Thus, for American universities, the contemporary call to reform higher education involves intensification of preexisting tendencies rather than fundamental changes.

The global preeminence of American universities is currently theorized to emphasize both their social embeddedness and their organizational character: they are imagined to be more attuned to the real world and to be more organizationally effective. These virtues, of course, become vices from the perspective of their critics; they are imagined to be corrupted by real-world (often corporate) influences and to no longer adhere to a distinctive institutional mission. Advocates and critics share the view that the socially embedded American university and its organizational culture may globalize (Readings 1996; Clark 1998; Etzkowitz and Zhou 2008; Slaughter and Cantwell 2012).

The core argument in this chapter involves these two general points: (1) the American cultural and political matrix facilitated the earlier rise of the socially embedded university organization in the United States as well as its intensification in a more integrated and competitive American educational field, and (2) the idealized American university organization is theorized as a template of excellence, and this template undergoes globalization in the era of 'world class' and 'best practices' (Ramirez and Tiplic 2014; Ramirez et al. 2016). Universities worldwide are thus under pressure to change and become socially embedded organizational actors. This leads to multiple tensions, as universities with historical roots quite different from the American cope with the new organizational rules of the game. In organizational theory terms these are the tensions between path dependency pressures and pressures that lead to institutional isomorphism (Ramirez and Christensen 2013; Ramirez 2006).

This chapter will identify and discuss three dynamics in the development of the American university: (1) increased entrepreneurship linked to institutional advancement goals, (2) increasingly empowered individuals linked to ideas about individual rights and human potential, and (3) increased legalization as cultural adaptation to increased entrepreneurship and empowered individuals. These trends are manifestations of the intensification of the socially embedded university. American universities are becoming more entrepreneurial and more empowering of individuals within universities. American universities are also undergoing greater legal rationalization, in good part as a response to their more entrepreneurial and more empowering character. These structural changes co-vary with universities presenting themselves to multiple audiences via mission statements.

The first part of this chapter seeks to make sense of the rise of the socially embedded university in the United States. Understanding the national political and cultural matrix that facilitated its emergence is crucial in any assessment of the likelihood of

its worldwide portability. Next, I focus on the entrepreneurial dimension of the socially embedded university, paying special attention to the rise and expansion of development or institutional advancement offices. The latter have now become taken-for-granted features of American universities. The third section examines the rise of empowered individuals within socially embedded universities, emphasizing the rise of the service-oriented university organization that tends to its empowered individuals (and further empowers them). Lastly, the chapter reflects on the growing legalization of the university and speculates on why this development may be the least likely to globalize. Throughout this chapter, concrete cases are highlighted to illustrate the three dynamics of interest. I also briefly reflect on the links between universities as organizational actors and the rise of mission statements, paying special attention to the competitive organizational field within which American universities operate.

American Higher Education

The American system of higher education has long been characterized as more socially embedded and market-oriented than its European peers (Flexner 1930; Ben-David and Zloczower 1962; Clark 1978). The decentralized character of the American polity gave rise to a highly decentralized educational system; competition for access to higher education fueled its earlier and more extensive growth (Collins 1979; Labaree 2017). In the land that celebrated opportunity, not security, higher education was the American alternative to the European construction of welfare states (Heidenheimer 1981). Instead of safety nets provided by welfare states, American universities offered mobility opportunity credentials. American higher education was neither under the bureaucratic authority of the state (e.g. France or Japan), nor deeply influenced by the charismatic leadership of senior professors (e.g. Germany or Great Britain). There was no national ministry of education to support or inhibit its growth. What constituted university-level knowledge was less canonical and more influenced by the engagement of universities with multiple groups in society, what today are called 'stakeholders.' Curricular innovations were easier to establish, from agricultural and manufacturing science in the nineteenth century (Gelber 2011) to ethnic and women's studies a century later (Rojas 2007; Olzak and Kangas 2008). What sorts of activities the universities and their professors undertook was also less constrained by the civil service status of its senior professors and more influenced by the changing character of its society. The commercialization of knowledge, for instance, came earlier in American universities (Owen-Smith et al. 2002). In his celebration of the flexibility and dynamism of the entrepreneurial university, Clark (1998) clearly had the socially embedded American university in mind. Critiques of the socially embedded university also target universities in the United States, emphasizing its links to the corporate world (Slaughter and Rhoades 2004). What may be viewed as the virtue of greater flexibility is from another stance the deplorable lack of standards, the main idea in Flexner's forceful

critique of American universities (Flexner 1930). For Flexner the university was *in* but not *of* society, a perspective at odds with the socially embedded American university.

So, why did the socially embedded university emerge in the United States? The rise of the Western nation-state involved the empowerment of both the individual qua citizen and the collective qua state. Much of comparative political sociology examines the tensions that arise from the emergence of individualisms and statisms within a Western frame (Hall 1990). In the European context, it is generally assumed that the rise of the state involved outcompeting other political units as well as undercutting or subordinating religious authorities (Tilly 1975). State formation preceded nation-building: this is the standard interpretation of European political development (Bendix 1964; see also Fukuyama 2011 for a more recent analysis of state formation and nation-building). States consolidated power and subsequently incorporated the masses: peasants (see Weber 1976 for France) and workers (see Smelser 1991 for England) were transformed into citizens. In the American iteration, however, nation-building preceded state formation; mass political participation preceded the rise of state bureaucracies and expanded state services (Huntington 1968). Voluntary associations of individuals and private enterprise, not states and public bureaucracies, were celebrated as engines of progress (Tocqueville 1972/1835; Dobbin 1997). The American cultural and political matrix was Lockean in spirit: civil and political rights (often discussed as curbs on state activism) flourished while social rights (often discussed as triggers for state activism) lagged. Even a fundamental social right such as the right to education is in the United States typically thought of as a civil right (*in pacem* Marshall 1964): Darling-Hammond (1997), for example, discusses the 'right to learn' as a civil right. In the American lexicon belief in progress was not linked to the authority of the state, often feared as a potential Leviathan. Individualism trumped statism; Lipset's 'first new nation' (1963) was not a state-directed nation-building project but rather the rise of the nation as the outcome of collective action that emphasized individual rights. Within the American cultural and political matrix, it is not surprising that universities would emerge as socially embedded, not state-shielded, organizations.

In the nineteenth-century 'age of nationalism,' universities on both sides of the Atlantic imagined themselves as linked to national culture and its transmission (Reisner 1927). Thus, Readings (1996) can critique the demise of this distinctive university mission for both American and European universities. However, in Europe the university mission was imagined in state-centric terms because national states were the main actors in the national development dramas that swept Europe. State-sponsored nation-building characterized much of Europe (Anderson 1983). European universities in the nineteenth century were both buffered from society and were more closely linked to national states and their regimes of government funding and regulation (Ben-David and Zloczower 1962). The European cultural matrix fostered the sharp distinction between public and private domains. The transmission of national culture and the articulation of the common good were public matters that public universities would fulfill.

The less state-centric American cultural matrix, on the other hand, allowed for both public and private universities to present themselves as serving national goals and interests not defined by the state. Even national educational initiatives (the creation of the National Academy of Sciences by Act of Congress in 1863, for instance) resulted in a private not-for-profit organization with a mandate to provide scientific and technical advice to the federal government, not in a government agency. To be sure, the role of the federal government increased over time; a Department of Education was created in 1979. However, the articulation of national educational aims is an undertaking that often involves the participation of private actors such as private university presidents, foundation directors, and corporate executives in national commissions. The participants are not civil servants, but they are entrusted with the responsibilities typically reserved for civil servants in European countries. Thus, we find private actors playing public roles in national commissions that influence national educational agendas, from the mass-schooling-oriented *A Nation at Risk* (U.S. National Commission on Excellence in Education 1984) to the higher-education-focused *Rising above the Gathering Storm* (U.S. National Academy of Sciences 2007). And of course, the boards of trustees in both private and public universities also involve a similar range of actors charged with overlapping and often national educational goals (Engwall 2018).

American higher education is not only clearly decentralized, but also deeply embedded in a cultural matrix that privileged an optimistic and liberal vision of nation-building (Schudson 1988; Walzer 1990). Individuals and the associations and organizations they created would be celebrated as the key actors in the American development narrative. Universities would indeed have an important role to play in this scenario, but it was one where they earlier on became socially embedded organizations. As such, they sought resources and legitimacy from multiple sources in a more competitive environment. American universities were actively engaged in tapping multiple sources of funding with what is now called 'institutional advancement' as a major goal. The entrepreneurial university is a manifestation of the intensification of the socially embedded university. Repeated references to the stakeholders of the university illustrate the further erosion of the boundaries between the university and society. Greater organizational flexibility may indeed make sense in an ever more competitive academic marketplace. However, these flexibilities can create potential conflicts of interest and related issues. The intensification of the socially embedded university has led to the greater legal rationalization of the university.

The legal rationalization of the university is also influenced by the increased empowerment of the individuals that inhabit it. The less shielded American university was also more exposed to social changes and legal developments in the wider society. These developments emphasized the rights of individuals, expanding their scope and extending these rights to greater numbers of people (Dobbin and Sutton 1998). Their proliferation eventually undermined the legitimacy of older university institutional characteristics: *in loco parentis* for students, more communal but also hierarchical arrangements for faculty, and paternalism for staff. Instead, the

university became still one more organization within which different and potentially conflicting rights would have to be managed.

Moreover, empowered individuals would be depicted not solely as bearers of rights, but also as persons with multiple needs and tastes that added up to enormous human potential if properly attended to. Fostering the development of this human potential was imagined to surely lead to the benefit of many different individuals, but also to benefit the university qua organization. A widespread and optimistic culture celebrating human potential would interact with an individual rights culture and drive the legal rationalization of the university. The unintended net effect would be increased rules designed to respect and promote empowered individuals, but also increased rule arbiters. The culture of the university would be increasingly legalized: there would be more rules covering more actors and activities, and more lawyers guiding universities through increasingly formal mazes.

Institutional Advancement and Entrepreneurial Universities

In the twenty-first century, universities are more likely to act as if they are in competition with other universities around the world (Marginson 2006; Portnoi et al. 2010). The proliferation of conferences and books on world-class universities and international rankings presuppose a common global frame of reference (Altbach and Salmi 2011). The identification of 'best practices' and their dissemination presupposes that educational ministries and universities seek to upgrade themselves and engage in benchmarking exercises to move in the right direction. China, for example, commits itself to creating a hundred world-class universities in the near future (Wang et al. 2011). The reasonableness of these presuppositions is, of course, challenged, with some scholars asserting their preference for the Bologna of the eleventh rather than the twenty-first century (Tomusk 2004). There are clearly spirited defenses of historical legacies and nationally distinctive university systems (Baert and Shipman 2005; see also the chapters in Mazza et al. 2008 and in Douglas 2016). However, it is indisputably true that university administrators, and perhaps even professors, are more aware of where their universities stand relative to others (Rauhvargers 2011). In addition to international rankings, 'national excellence' initiatives abound in very different countries, from older European nations, e.g. Germany (Kehm and Stensaker 2009) to rising Asian powers, e.g. South Korea (see the chapters in Oh et al. 2016). These rankings and the initiatives formalize differences between universities, transforming these differences into indicators of excellence and thus further differentiating universities from one another via universalistic metrics (Espeland and Sauder 2007).

In the European context, the erosion of state funding in some countries and the rise of an international academic market challenges an earlier exclusive orientation to the national state for legitimacy and funding and the tacit understanding that all

national universities were equal.[1]Throughout much of the world, there is an overall sense of greater competition for human and natural resources with which to enhance a university or a system of higher education. The competition for students, professors, and funds is now more international in character (Marginson 2006; Shin and Kehm 2013).

Competition came earlier to the politically and educationally decentralized United States. Absent stable state funding and national regulation, American universities functioned as 'open system' organizations, tapping into their environments as well as being influenced by changes in them (Labaree 2013). A widespread belief in progress, not strongly linked to state structures, facilitated exploring the societal environment. In what follows, I focus first on university efforts to gain stable funding and national standing. This is organizational entrepreneurship, and its most obvious manifestation is the creation of university development offices and fundraising campaigns. I then turn to faculty entrepreneurship, that is, efforts to solicit support for faculty-initiated activities. The quest for research grants is an early example of faculty entrepreneurship; the commercialization of knowledge is a more recent one. As we shall see, the distinction between organizational and faculty entrepreneurship is blurred over time. Universities encourage and reward faculty entrepreneurship. Legalization is a response to both further organizational and individual engagement with the wider society. We shall also see that institutional advancement in the American mode is very much a recipe for success that influences universities around the world.

By 1900, American higher education was more accessible than anywhere else (Rubinson 1986; Rüegg 2004). Via the Morrill Acts of 1862 and 1890, the federal government gave land to the states to create institutions of higher education. These were supposed to be different kinds of universities, linked to practical subjects such as agricultural science. However, over time these too became part of the sprawling network of higher educational institutions that comprised the American landscape (Gelber 2011). These institutions hustled for folks and funds in a country without a minister of education and without any national standards for ascertaining what constituted higher education (Labaree 2013, 2017). No American university would have been ranked among the world's top ten in 1900. But the ambition to excel was there early on and no one more explicitly articulated this ambition than Harvard president Charles Eliot in 1906 (Kimball and Johnson 2012a, p. 224; see also Kimball and Johnson 2012b):

> In the competitions between American universities and between American and foreign universities, those universities will inevitably win which have the largest amount of free money. […] How is free money to be obtained? […] The only way to increase the amount of such funds is to emphasize the urgent need of them, and to treat them with such steady consideration that they will have […] an assured permanence as funds.

[1]The author would like to thank Peter Maaseen for drawing attention to the fact that, in some European countries, support for higher education and research has actually increased over the last 10 years.

By 'free money,' Eliot had in mind unrestricted gifts to the university, gifts that add up to the endowment of the university. Harvard currently boasts an endowment of approximately 40 billion. Today, it is a commonplace for American universities to display their endowment and the fundraising campaigns that generate the endowment. Universities can, and are, ranked by the size of their endowments as well as by the success of their annual fundraising campaigns. It is also well understood that endowment funds are evidence of fiscal responsibility and organizational stability. Moreover, this understanding is not limited to the United States: university leaders elsewhere have taken notice, and ideas about the importance of institutional advancement are widespread. The former Pro Vice Chancellor of the University of Hong Kong puts it this way (Cheng 2011, p. 171):

> The notion of institutional advancement, thus, has a liberating function. It moves academics out of the box fixed by government allocation. It puts the core values back to academic endeavors, it creates room for creative and innovative thinking, it allows dreams to be realized, and it encourages bold explorations and risk taking which are so precious for academic endeavor and breakthroughs yet are hardly supported by public funding.

By the end of the twentieth century, American universities dominated the international rankings of universities. I am not here interested in why this happened or in how much stock we should put on these rankings. My point is that the Eliot vision is now commonplace throughout the United States. Universities, public and private, seek funds from multiple sources. Stanford gets Exxon; Berkeley gets BP![2] They seek unrestricted gifts, and they follow rationalized strategies for obtaining these gifts. It is almost comical to note the familiar sequence: articulation of the core values of the university, the unfolding of its lofty vision, the articulation of its vision informed mission, and the strategic plan to accomplish mission derived goals, preferably with milestones. Consultants assist in the institutionalization of this sequence. Eliot understood the importance of what we now call transparency and accountability. Friends of the university would want to know where their gifts would go and who else were friends of the university. And though this or that specific goal could be realized in a specific period, the overall vision and mission would always be ongoing. Part of the Eliot strategy was to show annual deficits. The message from the university was not so subtle: there was always great need for more funds.

Note that we are not here dealing with block grants or publicly budgeted monies for the university. To obtain these funds, universities must deliberately organize themselves with fundraising goals in mind. Moreover, they must organize themselves so that the pursuit of these goals becomes a taken-for-granted feature of the university. Upgrading a library, or building a laboratory, or acquiring a Noble prize-winner is surely a laudable goal, but there are subsequent maintenance costs, and gifted professors may meander across universities. What socially embedded universities need are reliable revenue streams flowing into an expanding lake of financial

[2] The Schools of Earth Sciences at private Stanford and public University of California have received generous funding from Exxon and British Petroleum, respectively.

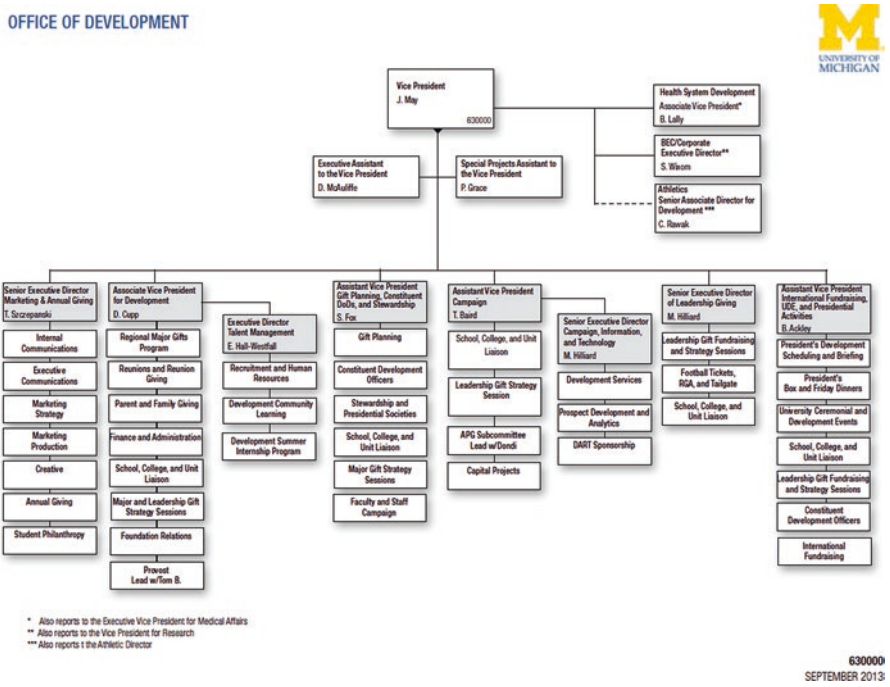

Fig. 9.1 Flowchart of development office staff at the University of Michigan (2013)

support for their long-term endeavors. This need is best symbolized by the rise of the development office and its subsequent professionalization. (Skinner 2019).

Much of the earlier fund raising involved the use of external firms and local volunteers. Over time though, universities created their own internal development or institutional advancement offices. This organizational innovation was designed to more directly focus the university on the need to secure, maintain, and expand its endowment. One might surmise that the private universities were first movers since they did not have easy access to state funds. In the 1970s, while about 45% of universities had development offices, the private ones indeed were more likely (about 50%) than the public ones (about 30%) to have development offices (Ramirez and Furuta 2016). However, working with a national probability sample of 236 higher education institutions as of 2017, we find that virtually all have development offices (Skinner and Ramirez 2019) Along this organizational dimension, the distinction between public and private universities is further blurred. The development office has become a taken-for-granted feature of American higher education institutions.

To illustrate the centrality of the development office in American universities, consider the organizational flowchart of the University of Michigan (Fig. 9.1).

Bear in mind that this is not the organizational flowchart of the whole university but 'only' of its office of development. From a non-American perspective, the size and complexity of the organization of the office of development must surely be

striking. There is a Vice President, two Associate Vice Presidents, three Assistant Vice Presidents, and an array of executive directors and officers that manage a lot of differentiated activities. The latter range from marketing to gift planning to international fundraising to athletics and to multiple other projects, all linked to the overall development or institutional advancement goals of the university.

To reiterate, the development office is now a taken-for-granted feature of university organization. The work of development officers has also undergone greater professionalization (Croteau and Smith 2011; Skinner 2019). Aspiring university development professionals undergo training to see to it that they embody the promulgated standards. The standard setting and the workshops and other training sessions were initially undertaken by organizations that were not solely focused on education but were more broadly engaging with the emerging world of philanthropy. More recent organizations (the Council for the Advancement and Support of Education, for example) primarily foster the professionalization of fundraising in higher education via products and services such as conferences, books and training materials. The global reach of this organization is attested to by the affiliation of over 3000 higher education institutions in over 80 countries across the world (Skinner and Ramirez 2019). Founded in 1974, CASE has offices in Washington DC, New York, London, Singapore, and Mexico City. The membership directory of CASE includes different kinds of universities (elite and common, secular and religious) in every region of the world. There is clearly growing worldwide interest in what started as an American innovation, reaching out to multiple sources for financial support and doing so in a more organized and professionalized manner. One of CASE's 2008–2013 Strategic Initiatives was to "Foster the Development of 'advancement without borders' by sharing expertise around the globe, by helping member institutions engage constituents internationally, and by updating CASE's governance structure to support these efforts" (Council for Advancement and Support of Education 2017).

Most giving to universities, Eliot notwithstanding, involves restricted or targeted gifts. These are aimed at specific parts of the university: medical centers or technology institutes for instance. New buildings are often outcomes of donor gifts. In the American landscape, endowed professorships also emerge, and their numbers increase over time. Other gifts are designed to support students in their pursuit of higher education. Large gifts, of course, have greater visibility and impact. The recent $100 million endowed Buffett Institute for Global Studies at Northwestern is noteworthy, both for its magnitude and because the gift did no go to a hard sciences or business school unit. However, small gifts are encouraged to maximize the number of people who identify with the university. Universities emphasize the total number of gift-givers in addition to recognizing the major donors. That is, universities extoll the virtue of broad-based support as well as celebrate the generosity of deep-pocketed friends.

Furthermore, in many universities the fundraising charge has extended to deans of schools and directors of institutes. Deans and directors thus are expected to become not only academic leaders, but also fundraising stars. Not surprisingly, in the wealthier universities, development officers work not only for central

Fig. 9.2 Advertisement for fundraising conference aimed at Deans of Schools (2015)

administration but also for the schools and institutes within the university. University development teams are multilayered, and their emergence often leads to overall organizational coordination issues and strategies, further highlighting the centrality of fundraising. All these fundraising efforts entail greater engagement with multiple groups as well as with consultants that contribute to the professionalization of these efforts. Dean search advertisements, often assisted by consultants, identify the fundraising capacities and experiences of applicants as a plus. The socially embedded university becomes even more socially embedded.

To illustrate, consider this advertisement of a conference designed to teach deans how to effectively fundraise (see Fig. 9.2). Note the explicit reference to development officers, with whom deans are expected to partner to develop a culture of philanthropy on campus. Note also the weight given to interactions with alumni in the overall effort to advance the institution. Lastly, note that this conference imagines academic leaders from departments as well as campuses as the beneficiaries of this conference.

This is but one example of a growing number of workshops and conferences aimed at academic leadership in socially embedded universities. There are more entrepreneurial universities in an environment with more consultants facilitating the professionalization of fundraising. This is an environment characterized by widespread efforts to professionalize a growing number of jobs; higher educational attainment is at the core of enhanced professionalization processes. Armed with certificates, university volunteers become professionals. To be sure, the expanding scope of professionalization has had its critics early on (Wilensky 1964). But five decades later, it is obvious that more and more activities are subjected to professionalization processes, with fundraising and related philanthropic activities becoming one more sphere of professionalization (Huang and Powell 2009). To wit, one can now obtain a doctorate in Philanthropic Studies at the Lily Family School of Philanthropy at Indiana University.

The entrepreneurial university breeds the entrepreneurial professor. The latter seeks financial support for research projects and launches projects for which there is financial support. The grant-seeking professor has been a feature of American research universities for a long time. In a decentralized, competitive, and optimistic academic landscape, future research directions can be imaginatively linked to the rising aspirations of a university. As early as 1943, Stanford Provost Fred Terman could channel his inner Eliot (Lowen 1997, p. 73):

> War research which is (now) secret will be the basis of postwar industrial expansion in electronics […] Stanford has a chance to achieve a position in the West analogous to that of Harvard of the East.

Research and development in electronics did in fact fuel the rise of Stanford. Terman mentees, Hewlett and Packard, have given more than $300 million to Stanford. There are buildings that bear their names, as well as programs and students that benefit from their largesse. Terman referred to the growing links among university, industry, and government as a 'win-win-win' situation. The rise of what Lowen (1997) called the 'Cold War University' indeed involved the intensification of these links. Faculty entrepreneurs with Stanford roots have created companies such as Google, Sun Microsystems, Yahoo, Cisco, Intuit, and in an earlier era, Hewlett Packard and Fairchild Instruments, among others.

To further illustrate, consider a seminar on how to become a faculty entrepreneur in 2002. The seminar was intended to help interested faculty in getting involved in entrepreneurial ventures such as starting a company or licensing a technology or serving in a technical advisory board. The sponsoring parties include banks, law firms, technology groups, and the relevant offices within Stanford University (the Office of Technology Licensing, for example). Though this was a seminar by invitation only, the list of invitees included social scientists with funded research grants but no experience in entrepreneurial activities. The welcoming University President, John Hennessey, emphasized that teaching and research would always be top priorities at the university. But the zeitgeist of the entrepreneurial university is captured in his further remarks (Transcript of Seminar of November 5 2002):

> If we are doing great research, however, one of the things that will come out of that is great ideas that can be turned into companies. From time to time there are breakthroughs that happen, that do sometimes have short term applications and make commercial sense, but in general our research should be focused on long term outcomes and not short-term gains. […] We don't encourage our faculty to be entrepreneurs, but we don't have to, it seems to be in the air. We are supportive of entrepreneurial ideas. There is a strong connection between working on exciting state of the art things outside and being a better faculty member. It helps you in your teaching and research. Research on the outside may take you ways in your research that you wouldn't have gone otherwise. There is a synergy between the two. We like the feedback loop between the two.

Though elite American universities may be emblematic of entrepreneurial universities, the recipe for the socially embedded university gets enacted across the world. One finds development offices in private universities (Yonsei University in Korea, for instance) but also in public ones (Universidad Nacional de Colombia).[3] Even medieval universities move in this direction: Cambridge and Oxford, for instance. One can point to the American tax system to explain the earlier rise of philanthropy in the United States. And, one can further note the incentives for the commercialization of knowledge brought about by the 1980 Bayh-Dole Act (Colyvas and Powell 2006). These society-specific characteristics are important, and yet we now see the rise of university development offices in very different kinds of societies. Perhaps just as higher education expanded earlier in America but then grew everywhere (Schofer and Meyer 2005), the socially embedded university will be globally enacted, albeit with much local editing and translating (Sahlin and Wedlin 2008; Drori Höllerer and Walgenbach 2013). In short, the conditions that facilitate first movers may no longer be necessary once the innovation obtains broad legitimacy (Tolbert and Zucker 1983).

All these developments create potential conflicts of interest, and the legalization of the university is an organizational coping response. The legalization may vary in how well it works, but it clearly signals a commitment to probity, and thus, enhances organizational legitimacy. As we have stated earlier, the empowerment of individuals also furthers the legal rationalization of the university. I turn now to consider this issue.

Empowered Individuals and Valorized Diversity

It is important to reiterate that the American system was not only politically and educationally decentralized; it was also oriented to a vision of progress that would be obtained via individuals and their associations and organizations. This was a vision validated by the wider culture that assigned less value to state structures and government initiatives in accounting for progress, (Dobbin 1997). Thus, from the outset, efforts to create universities were fueled by public and private sources that

[3] Private communication from Professor Yun Suk Jang and Pedro Pineda.

were often indistinguishable as far as their public aims were concerned. The promotion of social mobility via higher education was an objective, but so too was the public goal of building a better nation via the education of its citizens and leaders. To reiterate, there has never been a federally mandated national university but there are many universities that see themselves as pursuing the national or public interest (Gavrila and Ramirez 2019). This is the terrain within which competing social classes and status groups struggled to gain further access to higher education and successfully did so in varying degrees (Collins 1979; Labaree 2017).

The struggles continue but now take the form of efforts to reshape higher education to enhance the experiences of those newly incorporated into universities. The social movements of the sixties and seventies brought larger numbers of women and people of color to the universities (Solomon 1985; Brock 2010). These movements challenged the traditional authority of the university. The free speech, civil rights, and anti-war movements generated other challenges (Gitlin 1987). These challenges focused not solely on expanded access but also on improved experiences within the university. That is, the key issue was not only about incorporation but also about the terms of incorporation. Extant citizenship rights were indeed extended to students, depriving the university of *in loco parentis* authority. Codes of conduct now construed as restraints on citizenship rights (free speech, for example) eroded. Furthermore, what was to be taught became contested terrain (Bloom 1987). Curricular requirements were interrogated. Curricular innovations gained traction. The socially embedded university that had earlier been open to the 'practical arts' (Brint 2002) was now the site for courses of immediate social relevance: women's, black, and environmental studies, for example. Relevance and diversity emerged as key questions regarding the terms of incorporation (see the chapters in Smelser and Alexander 1999; see also Maher and Tetreault 2007).

Students as empowered individuals, with a broader range of legitimated choices to make, increasingly became a taken-for-granted feature of the American university (Robinson 2011). Frank and Gabler (2006) demonstrate that this curricular transformation of the university took place throughout much of the world. Even in the 'Republic of Letters,' the centrality of the humanities diminished (Soares 1999). Canonical requirements, always relatively weaker in most American universities, faded (Bloom 1987; Readings 1996). The valorization of diversity increasingly became the signature of the American university, in aspiration if not in practice (Stulberg and Weinberg 2011; Kwak et al. 2019). The good university did not simply dismantle barriers, but actively sought to welcome and celebrate difference. One organizational manifestation was the formation of diversity offices. More universities report the number of students of color in their rosters; women in traditionally male bastions, medicine, law, and engineering, are also counted. More recently the term 'first generation' is coined to count students who do not have parents with higher education degrees. All of this is viewed as progress; university websites frequently express diversity commitments. To be sure, the emphasis on diversity has been criticized as 'happy talk' (Bell and Hartman 2007). But universities clearly see themselves as upgrading as they become more diverse. There are even rankings that rate universities on diversity, with the more diverse at the top of this hierarchy (Best

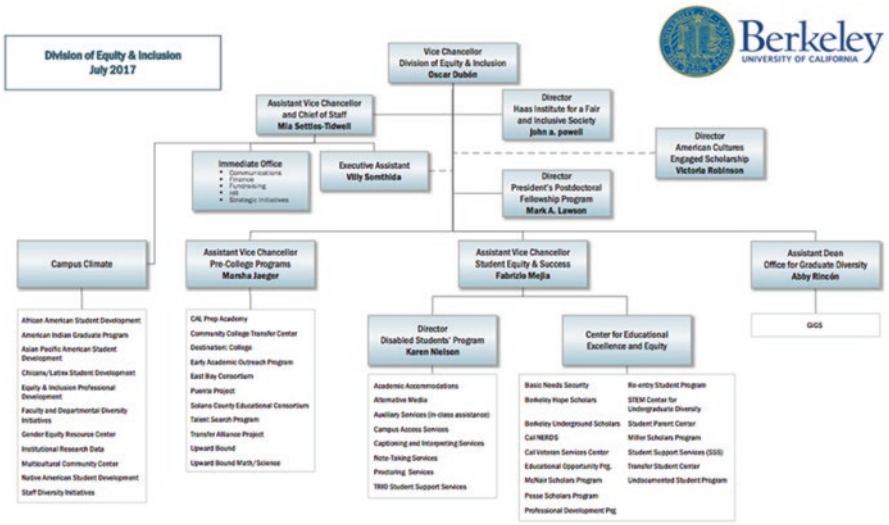

Fig. 9.3 Flowchart of diversity office staff at the University of California Berkeley (2017)

Colleges 2019). Working with a national random sample of 236 higher education institutions, we find that 60% had institutionalized diversity offices (Kwak et al. 2019). While clearly not as taken for granted as development offices, the organizational commitment to promote diversity is nevertheless increasingly a core feature of American higher education today.

To illustrate the valorization of diversity in American higher education, consider the organizational flowchart of the Division of Equity and Inclusion at the University of California at Berkeley (Fig. 9.3). Note the large number of topics covered by differentiated organizational positions that ultimately report to a Vice Chancellor.

The valorization of diversity in higher education is not limited to the United States. Affirmative action ideas gain currency in many other countries, Brazil, for instance. University brochures positively emphasizing a climate that welcomes diverse students diffuse. The Oxford University Undergraduate Prospectus (1998–1999), offers diversity-affirming testimonials from students such as these ones:

> I thought there would be a lot more 'tradition' – formal dinners, old boys at High Tables, prep school manners-but it hasn't been like that at all. There's such as wide diversity of people here, from all sectors of the community. Whatever you're into, you'll find someone who shares your interests."(p. 22)

> I'm a practicing Muslim and it was difficult when I fasted for Ramadan. I could only cope with the work when I was eating and I became nocturnal. It meant missing lectures, but my tutors were very understanding, as long as I caught up. Together we're looking at possible solutions for this year." (p. 21).

Valorized diversity discourse is now a feature of many a university 'presentation of self.' The organizational changes involve discourse but also structure. Oertel (2016)

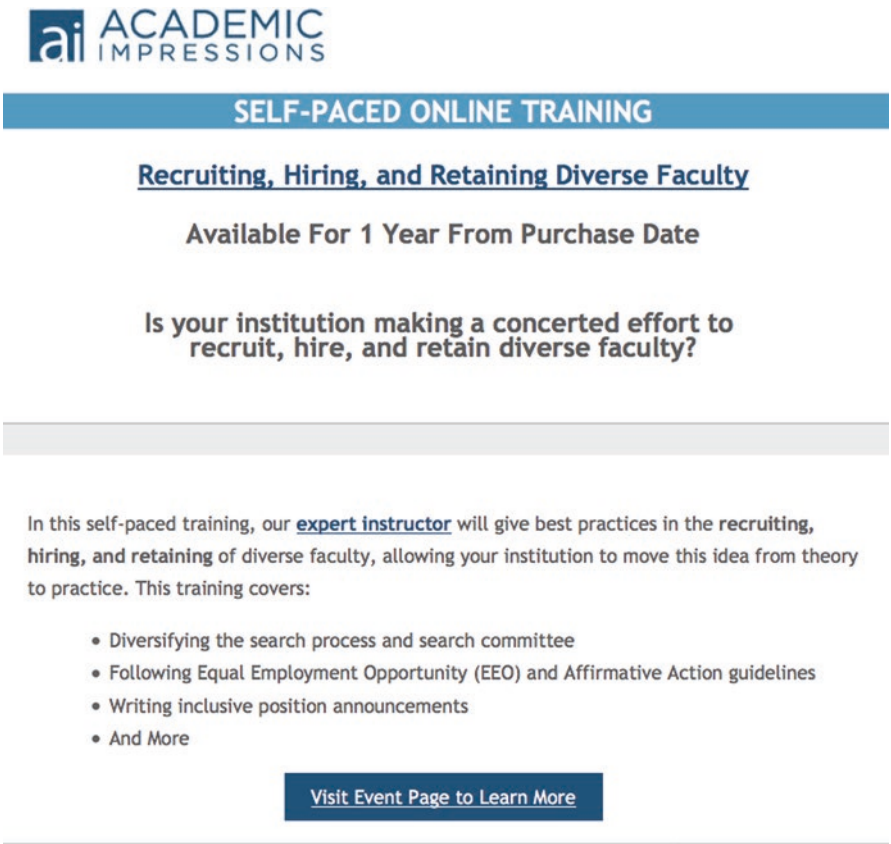

Fig. 9.4 Advertisement for university training on diverse faculty recruitment

shows that university diversity management officers are emerging and diffusing in German universities. He has further shown that newly founded universities are more likely to have a Vice President for Diversity Management. This finding is consistent with the more general idea that the age in which an organization was born influences its structure (Stinchcombe 1965). So, we see the celebration of empowered individuals in higher education in different parts of the world, and we further see these developments in both discursive and structural terms.

In this domain, we also find external bodies providing universities with training on how to become more diverse. The socially embedded university is linked to expertise regarding development but also with respect to diversity. There are workshops on fundraising but also on diversifying search processes and writing inclusive position announcements (see example in Fig. 9.4).

Some scholars have argued that faculty authority has declined during the last few decades (Gerber 2014). The metaphor 'from the sage on stage to the guide on the side' captures the sense of a loss of professorial charisma in universities. The rise of

management is often the culprit in this scenario; it is certainly a core feature of the critique of new public management in the European context (Christensen and Lægreid 2001; Berman and Paradeise 2016). American universities are indeed now more subjected to rationalized organization and professionalized management (Ramirez and Christensen 2013). The authority of the academic estate qua academic estate is declining. But it not clear that most individual professors are worse off as a result. As individuals, they too are more empowered over time. The rise of workshops on how to teach, do research, obtain grants, and even how to become university leaders, etc. presupposes multifaceted scholarly potential that should be nurtured. Outcomes will vary, but individual empowerment is the overriding goal of these organizational developments.

Furthermore, the rights of individual professors who hold tenure track appointments are on the rise. This is clear with respect to core evaluation issues. What constitutes merit in annual reports gets more rationalized via metrics that diminish the likelihood of allegedly arbitrary judgments on the part of senior faculty and administrators. Tenure and promotion criteria are fleshed out to a greater degree than in past eras. Even elite universities are under the gun to become clearer as to what constitutes excellence, and to provide opportunities to all to attain excellence. Thus, reduced teaching loads and early sabbaticals have become more standard features of early academic tenure track careers in a growing number of universities.

Workshops to facilitate the development of scholars not only presuppose growth potential but also individual rights. The latter increasingly include rights to broad services. Universities expand their service orientation to students but also to professors. So, ironically, even as universities have lost much of their traditional authority over students and to some degree over more rights-conscious faculty, universities are expected to assume greater responsibilities over a greater sphere of the lives of both professors and students. Charisma and tradition wither in the more rationalized American university inhabited by more empowered individuals. University services for all increase, and these include counseling across health, finance, career, legal, and other domains.

The same process holds for non-faculty personnel. These are much more likely to be college educated and even advanced degree holders. Changes in job titles reflect ongoing professionalization; more feudal-like secretarial designations are disappearing from organizational flow charts. Non-faculty personnel are more likely to play more specialized roles in a more fleshed-out formal organization. They are also more likely to be presented with career ladders and to undergo professional development workshops designed to enhance their mobility.

To illustrate, contrast the organizational flowchart of the Graduate School of Education at Stanford University in 1986 with its status in 2015 (see Figs. 9.5 and 9.6). Note the much greater number of organizational slots and the increase in its leadership team. Administrative assistants replace personal secretaries. Titles from the business world are adapted (chief technology officer and chief communications officer, for example). A chief inclusion officer was in place by 2017.

Staff empowerment is evident across schools and universities, though of course in varying degrees.

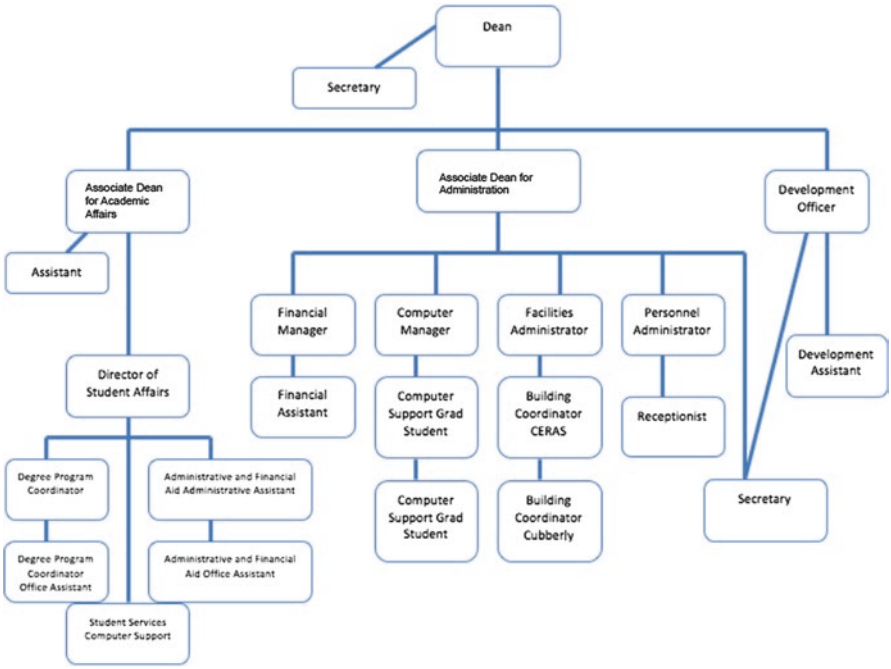

Fig. 9.5 Flowchart of the Stanford Graduate School of education staff (1986)

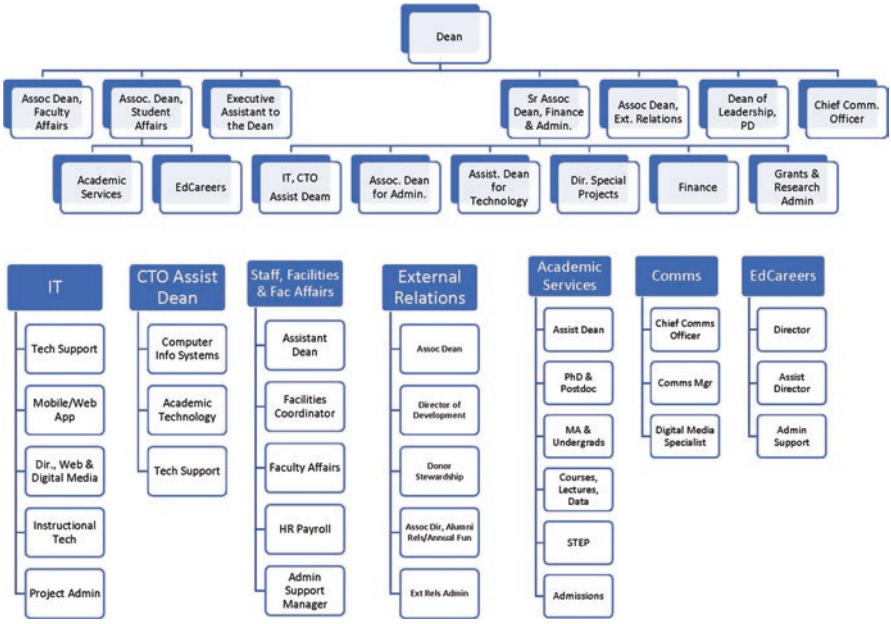

Fig. 9.6 Flowchart of the Stanford Graduate School of education staff (2015)

It is important to note that none of these actors – students, faculty, and staff – are empowered as corporate entities, but are instead empowered as individuals. This is consistent with the broader American liberal and individualistic cultural matrix. Students may mobilize around specific causes. Faculty may unionize and seek collective gains. Staff may do likewise. But the enduring impact of empowerment, for better or for worse, is at the individual level. The favored narrative is that empowered individuals enhance the university, and ultimately the wider society. The reorganization of the university acknowledges empowered individuals and seeks to further empower them. In different ways, the American university tells its inhabitants 'you can make a difference!'

To summarize, the socially embedded American university has undergone an increase in institutional advancement activity reflected in the rise and professionalization of development offices. The socially embedded university has also experienced an increase in empowered individuals reflected in the rise and professionalization of a range of growth opportunities and personal services offered to them. The latter are attuned to both the potentials and rights of individuals within the university. Institutional advancement and empowered individuals are both seen as necessary for creating a better university. The latter and more intensely socially embedded university, in turn, is imagined as an engine of progress.

As we have noted earlier the unintended net effect of these changes is the legal rationalization of the university. The next section reflects on why this is the case and what is the evidence that universities are indeed more legalized.

Legal Rationalization

The flourishing of entrepreneurship at both the organizational and individual levels adds up to greater contacts with multiple parties. These include governmental and non-governmental funding sources, industrial partners, engaged alumni, and other supporters of universities and their students and professors. University leaders frequently emphasize the benefits of increased revenue streams and their necessity for the pursuit of excellence. In a competitive environment these revenue streams facilitate attracting and supporting good students, professors, and even administrators. University engagement with society is expected to benefit the local economy, and in some cases, the national economy as well. Elite universities are not shy about loftily stating that they address global problems, from worldwide poverty to global climate change to international peace. The Harvard Graduate School of Education vision, for example, is 'To Learn to Change the World' (2019). Many new institutes emerge to symbolize these global university commitments. Older ones are re-energized or at least re-branded (Kirp 2003; Drori 2016). All these activities require enhanced funding; more rationalized university budgets identify the different revenue streams. Fundraising campaigns do likewise.

However, the extensiveness and intensity of these activities give rise to potential conflicts of interest. It is widely understood that the integrity of research must be

safeguarded against the reality or appearance of bias aligned with the aims or interests of the parties that support the research. The parties may be for-profit corporations: pharmaceuticals funding medical research, for example. The parties may also be branches of the government: Defense Department funding biochemical research, for instance. The parties may also be well-heeled donors with links to special interests: for example, Wall Street and Silicon Valley titans funding law and engineering schools. To be sure, the integrity of the university must also be safeguarded against the suspicion that it does the bidding of external sources. This concern also leads to questions about the external interests of professors and administrators, and whether these collide with their duties as university people. The faculty entrepreneur is an identity that calls for different activities that may indeed be mutually re-enforcing. But entrepreneurial engagement may also mean the diminution of time and energy allocated to scholarly matters. So, there are integrity issues that directly arise from undue donor influence as well as those that emerge from the potential negligence of university professors and administrators.

One might assume that common sense and good faith would suffice to cope with potential conflicts of interest. But this is not the case, in part because what constitutes a conflict of interest has expanded over time, thus increasing the likelihood of potential conflicts. Before World War II, for instance, war-related research was lauded as a virtue in the service of the national interest (Lowen 1997), but after the Vietnam War, this type of research has been problematized. Many universities eschew confidential research such as war-related research.

There are also changing standards with respect to how university resources should be invested and managed. In an earlier era, trustee discretion regarding university investments was not much challenged. That is, after all, the fiduciary responsibility allocated to trustee boards. But that discretion has been questioned as well. In an earlier era, an anti-apartheid zeitgeist triggered student movements calling on universities to divest from companies doing business in South Africa (Soule 1997). More recently, environmental issues are raised to question university investment decisions. These are but some examples of changing standards that make it more difficult to leave to individual professors' or even senior administrators' sole discretion, regarding what constitutes conflicts of interest. The problem becomes even more acute when one realizes that the scope for conflicts of interest has expanded with the growth of different links to different stakeholders. And to reiterate an earlier point, public universities are also affected: Stanford has Exxon; Berkeley has BP!

Throughout the American higher education landscape, the cultural response of the university involves legal rationalization. Conflict of interest protocols are developed, and their content disseminated. A regulatory regime emerges, and lawyers play a major role in shaping this regime. In some universities, every professor who has a research grant – and having one or more is increasingly part of a productive scholarly profile – is required to fill out a conflict of interest protocol. More major conflicts are imagined for those who have created their own companies or consult for companies, even respectable ones. The intensification of organizational and individual entrepreneurship situates universities in a complex network of multiple

interests with the potential of both enhancing institutional advancement but also undergoing conflicts of interest.

Furthermore, the empowerment of a greater number of individuals within universities leads to increased conflicts due to increased rights. Universities, of course, continue to have the authority to expel or suspend students for inappropriate behavior. Universities also have the right to determine which professors are offered tenure status. But in a rights-conscious culture, these decisions increasingly need to be justified according to rules that are more likely to be more formally codified. Whether these rules or their application constitute a violation of due process leads to the legalization of the university. Due process ideas permeate the university as an organization, just as they have influenced other organizations in the workplace (Dobbin et al. 1988; Sutton et al. 1994). As stated earlier, the socially embedded university is not buffered from legal developments in the wider society. Due-process ideas and the practices they inform are formally enshrined in university handbooks and communicated via workshops for a broad range of university decision makers. Not surprisingly, lawyers are apt to play leadership roles or at least are much consulted in coping with these matters.

Furthermore, there are greater instances of direct collisions of rights. Standard professorial rights regarding evaluation processes, how much time to give students to complete assignments or exams, for example, may collide with the right of disabled students to receive academic accommodations. Faculty is expected to incorporate the empowering language in their course syllabus. To illustrate, consider the following from the University of Arizona (2019):

> It is the University's goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. You are also welcomed to contact Disability Resources to establish reasonable accommodations. Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable. Instructors are encouraged to provide appropriate individual flexibility to all students. When disability-related accommodations are requested, instructors should consult with DRC staff to identify strategies or accommodations to provide access.

This trend in the direction of greater formalization – more rules regarding more actors and more activities – is evolving to become the greater legal rationalization of the university. In practice, this means that there are more issues that are routinely perceived through legal lenses. Empowered individuals are more likely to imagine that their rights have been violated by decisions negatively impacting them. The angry feelings and sad sentiments of students, professors, and staff are hence more likely to be framed in legal terms: my rights have been violated. Universities create ombudsperson offices to assure good governance and to amicably resolve conflicts, one of many university services extended to all. However, universities also establish legal offices to minimize their legal liability and to shield the university from lawsuits.

The dynamic here is not unlike that which characterized the transformation of development work in universities. In addition to an earlier reliance on external

development and legal expertise, internal development and legal offices are emerging. University websites indicate the mission of these offices; to illustrate, consider the two main goals of the Office of the General Counsel at the University of Minnesota: "ensure the best possible litigation outcomes and minimize legal problems by offering proactive legal services." These services range from academic misconduct, to conflicts of interest, to human and animal research regulation, to employment, and to patents (University of Minnesota 2019). Similar legal services are provided at the University of Washington, though here the legal office is organized as a Division of the State Attorney General's Office. These services are very similar to those offered at the University of Minnesota and include areas such as "employment law, labor relations, student affairs, real estate, business law, intercollegiate activities, bonds, intellectual property, tax, benefits, constitutional law, gifts and trusts, and health care law" (University of Washington 2019). The Division Chief has a staff of fourteen lawyers and a support staff. The OGC at Minnesota has a comparable legal and support staff.

University lawyers do not operate in a vacuum. The National Association of College and University Attorneys (NACUA) has members from more than 700 institutions, encompassing more than 1800 campuses, and involving 4100 attorney representatives. Like other professional associations, the NACUA has annual meetings and offers professional development workshops. More recently, it has launched an online service, the Higher Education Compact Alliance, to help higher education institutions to better comply with the "ever growing body of federal law and regulation that affects colleges and universities." Due-process and discrimination issues are featured in the cases their website highlights. Upcoming programs will focus on sexual misconduct on campus, an issue likely to lead to greater legal rationalization.

Not surprisingly, in addition to workshops on how to do development work and how to enhance diversity, there are also professionalization workshops that center on legal issues. To illustrate, consider the advertisement shown in Fig. 9.7.

Tenure rates vary enormously across universities. However, all empowered individuals now deserve to face clear standards and processes, and their specification is best undertaken with legal expertise at hand. Empowered individuals who do not get tenure also deserve counseling services offering care. To meet these expectations universities will undergo greater organizational rationalization. It may not do to simply assert that only the best get tenure. Rationalized performance indicators, the A-list of journals in business schools, for instance, are but one of many rationalized assessments of quality now utilized.

Some of the NACUA lawyers work full time for universities while others handle university-related cases while primarily employed elsewhere. The emergence of the National Association is an important moment in the transformation of the university to an organization more attuned to legal issues. The emergence both presupposed a degree of ongoing legal rationalization within universities and enhanced it by creating a trans-university environment that supported it. The legalized trans-university environment itself reflects the greater overall legalization of American culture and society.

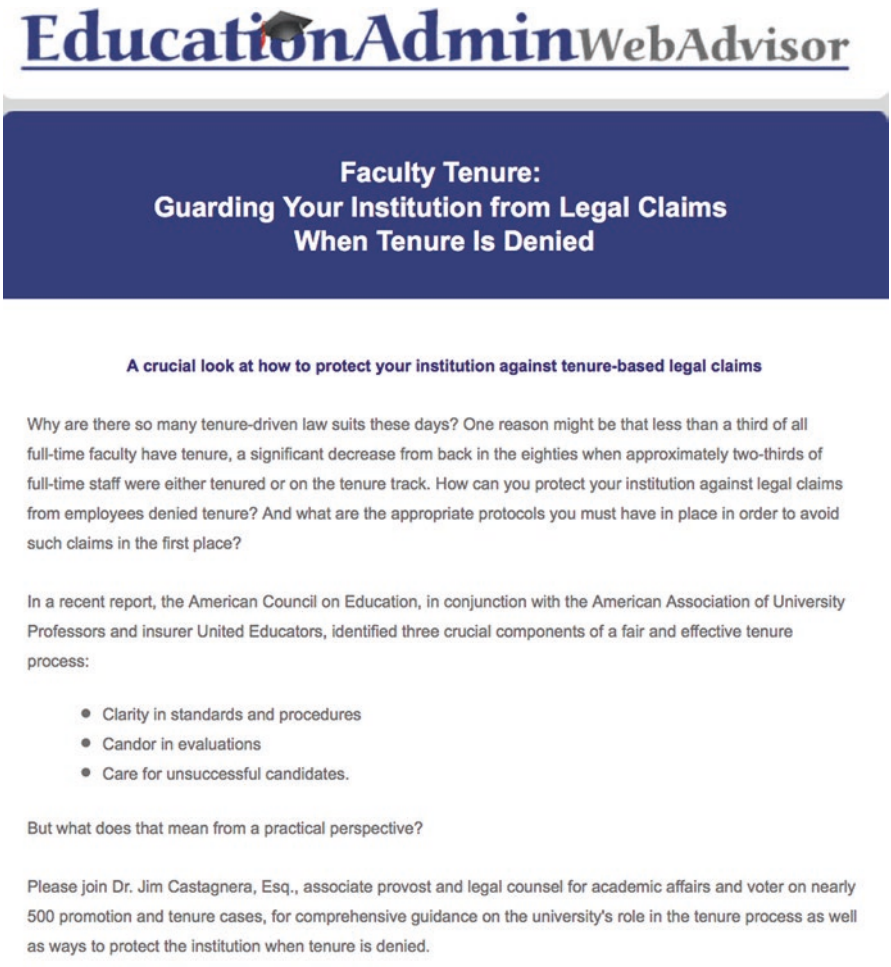

Fig. 9.7 Advertisement for university training on legal issues surrounding faculty tenure

Several interrelated predictions follow from this discussion: 1. There will be an increase in lawyers who specialize in higher education law and belong to a network of lawyers that legitimate their specialization. 2. There will be an increase in universities with internal legal offices. 3. Legal offices will increase in centrality and in size. The heads of these offices will obtain higher status educational titles, not just chief counsel but vice provost, for instance; their staff will become more specialized, some attending to issues arising out of increased entrepreneurship and others dealing with the rights and needs of empowered individuals. 4. There will be more 'traffic' headed to these legal offices, both more cases and greater variety in the kinds of cases.

Needless to say, one should expect to find a decline in both traditional and charismatic authority as legitimating forces within universities. 'This is how we have always done things' will not cut it as a policy justification. Even charismatic presidents will closely interact with legal counsel on an expanding range of issues. Working with the aforementioned national probability sample, Furuta and Ramirez (2019) found that nearly half of the universities had a legal counsel position. As we discovered throughout these exploratory analyses of university websites, virtually all the prestigious universities, the so-called Ivy Plus, have legal, diversity, and development offices. Since the prestigious universities are often the source of 'best practices' ideas, I expect the proliferation of these offices across American universities over time.

Taken as a whole, these organizational developments depict the intensified rationalization of American universities as organizational actors in an increasingly competitive organizational field. In addition to these structural developments one can also find discursive developments. These increasingly take the form of mission statements in university websites. Mission statements are how organizations see themselves and want others to see them (Powell et al. 2016). Through much of their history universities relied on papal and royal charters for their identity and legitimacy. However, as they become organizational actors, universities begin to utilize mission statements as strategic tools for reputation management aims (Christensen et al. 2019). American universities use these mission statements both to establish legitimacy by stressing some university-identity features that they share with other universities but also to differentiate themselves from competitors. Several studies emphasize the ubiquity of mission statements in American universities (Morphew and Hartley 2006; Taylor and Morphew 2010). In these presentations of self, universities emphasize their commitment to student development as well as their impact and relevance to the local, national, and more recently, world community.

The emergence and diffusion of mission statements is in part due to pressures from accreditation agencies but also because these presentations of self are now seen as what every rational and modern university does. As the national and global environment changes so do the mission statements of universities. Morphew and Hartley (2006) find that 80% of higher educational institutions altered their mission statements in the mid-1990s, suggesting that these are not static but rather dynamic presentations of self. Lastly, it is important to emphasize that mission statements are not solely an American university innovation, but indeed increasingly a more global practice (Delmestri et al. 2015).

Concluding Thoughts

To return to my core argument, the intensification of the socially embedded university manifests itself in more entrepreneurial universities with more empowered individuals within them. These developments in turn facilitate the legal rationalization of the university. This proposition can be tested at the organizational level to

ascertain whether early adopters of university development offices were also more likely to earlier establish legal offices. In the same vein, one can determine whether early adopters of individual empowerment policies moved more quickly to create legal offices. Furthermore, one can focus on the size of the legal staff of universities and on the sources of its expansion. This research direction directly tests the idea that legalization is an organizational response to the rise of development offices and individual empowerment policies.

Furthermore, one could think of universities as constituting a population of organizations within which universities are 'at risk' of legal rationalization as a function of what other universities are doing, in their country, or in their region, or within their reference group (for example, private versus public). The overriding question is whether some university-specific organizational changes promote legal rationalization, or whether all these changes are mostly driven by a wider environment that promotes overall organizational rationalization along multiple related dimensions (Bromley and Meyer 2015).

This overriding question can also be examined with universities around the world in mind. If the socially embedded university is globally gaining traction, one should expect to see a rise in university and professorial entrepreneurship. The first task is to see whether and to what extent organizational developments that clearly characterize American universities are also now taking place in universities in other countries. Next, one can go further to assess its antecedents or triggers. Using the university development office as an indicator, one can ascertain to what extent the timing of its adoption or its expansion is influenced by characteristics of the university or the system of higher education. Are newer universities more likely to more readily adopt development or diversity offices, as these were founded in an age conducive to these innovations (Stinchcombe 1965)? Or, more broadly, whether the level of national economic development or type of political regime is the driving force that results in university development offices. One might expect early adoption to take place in universities in more liberal polities and in less centralized educational systems. Such a finding would be consistent with the idea that national polities and national educational legacies continue to matter, facilitating or hindering organizational changes.

Alternatively, in line with classic diffusion ideas, the adoption rates within a region or the world may generate this innovation. Such a finding would be consistent with the alternative idea, that transnational higher education environments are consequential in fostering university changes. The research question then is the following: when is a country likely to have its first university adopt a development office?[4] Using measures of individual empowerment, the emergence and expansion of student service offices, for instance, one can undertake a parallel analysis.

Thirdly, if legalization as an organizational response to the entrepreneurial and individually empowering university is contingent on a liberal and individualistic

[4] See Wotipka and Ramirez (2008) for an example of this kind of analysis with the emergence of women's studies as the outcome variable.

culture, then the emergence of legal offices may not be found in many countries. Unacceptable behavior on the part of students, professors, and administrators may result in expulsion, termination, and resignation decisions without much concern regarding the due-process rights of individuals or the legal liability of the university. What constitutes unacceptable behavior may broadly diffuse but the legal frame cum practical solution may not. The legalized university may presuppose a society more shaped by courts and parties than by civil servants and bureaucrats. That is, of course, how American society has often been characterized (Skowronek 1982; see also Edelman and Suchman 1997)).

Lastly, one can conceptualize these developments as adding up to a mega organizational and strategic action field comprised of development, student services, and legal officers across different universities, national associations of these officers, consulting firms, university administrators, professors, students, and the legal profession. Within and across national boundaries one can study the emergence of this field via interviews of key players and through a content analysis of archival materials pertinent to its rise. This line of inquiry can shed light on similarities and differences with respect to the components of this organizational field, e.g. development versus student services subfields as well as the status of these fields and their components in different kinds of societies, e.g. more liberal versus more social democratic and different kinds of higher educational systems, e.g. more decentralized versus more centralized. Furthermore, this line of inquiry can contribute to the growing interest in studying the development of organizational and strategic action fields (DiMaggio and Powell 1983; Fligstein and McAdam 2012) and the ways in which varying institutional logics both inform and are dealt with by different actors (Thornton et al. 2012).

Addressing these questions will further shed light on the ongoing debates in comparative higher education regarding the degree to which the organization of the university changes and the extent to which the changes are influenced by exogenous models of excellence (Neave 2003; Dobbins et al. 2011). At the core of these models, one finds the idealized American university: more socially embedded, more formally organized and more grounded in a liberal and individualist cultural matrix. Higher education for all, earlier on a distinctive American experience, has now globally triumphed as a desideratum. To what extent and in what ways the socially embedded university diffuses remains to be seen. Through what processes and with which narratives it gets resisted also remains to be seen. No doubt a lot of 'cutting and pasting' from the exogenous models of excellence will take place. This will result in a lot of actual variation across universities and countries, though arguably less so than when only local bricks and mortar were the legitimate building blocks of the university.

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Chapter 10
The European University as a Multiversity

Georg Krücken

Introduction

The term 'multiversity' dates back to Clark Kerr's seminal lecture and subsequent book from 1963. According to Kerr, the American research university – and here he particularly had UC Berkeley in mind, where he served as Chancellor from 1952 to 1958 before becoming President of the entire University of California system – had to be conceived at that specific moment in time as a multiversity. Kerr saw the unity of his university in its diversity as "an inconsistent institution [...] not one community but several" (Kerr 1963, p. 14). In particular, the increasing interactions between faculty and the outside world made the edges of the university appear fuzzy, and the academic core rather empty. By the second half of the twentieth century, the 'idea of the university', most prominently developed by Wilhelm von Humboldt and Cardinal Newman in nineteenth century Europe and strongly based on a community concept, had given way to an internally fragmented 'multiversity'.

Kerr's observation with regard to American research universities in the early 1960s is certainly true for contemporary European universities as well. However, we can also observe an opposing trend in the form of the transformation of the university into an organizational actor, i.e., an integrated, goal-oriented, and competitive entity, in which management and leadership play an ever more important role (Krücken and Meier 2006; Hasse and Krücken 2013). Conceptually, we draw strongly on the work of the neo-institutional sociologist and globalization theorist John Meyer and his collaborators (Krücken and Drori 2009). Meyer's work on actorhood tries to expand neo-institutional theorizing by reconstructing modern actors, be they individuals, organizations, or nation-states. A modern actor is conceptualized as "a goal oriented, bounded, integrated, technically effective entity" (Meyer 2009, p. 38) that is nevertheless not an autonomous decision-maker. Instead,

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modern actors can only be understood by reconstructing "their practical embeddedness in taken-for-granted culture and relationships" (Meyer 2009, p. 39). In the book *Hyper-Organization* (Bromley and Meyer 2015) this basic idea is elaborated with regard to the global expansion of organizational actorhood, i.e., formal organizations that paradoxically express their deep embeddedness in contemporary society and its cultural underpinnings by being an autonomous actor "choosing and producing purposive social action, not simply an inert frame for action" (Bromley and Meyer 2015, p. vii). Such an understanding of society and its (organizational) actors is also to be found in other concepts. In his recent book, sociological theorist Andreas Reckwitz (2017) assumes that contemporary society is a society of singularities, based on a widely shared culture that cherishes authentic subjects with extraordinary interests and fine-grained biographies, but also cities, regions and organizations that claim distinctiveness and uniqueness. In a similar vein, organizational researchers Nils Brunsson and Kerstin Sahlin-Andersson claim that public sector organizations are transforming into 'more complete' organizations that are based on identity, hierarchy, and rationality (Brunsson and Sahlin-Andersson 2000).

This broader theorization of organizational actorhood is important for analyzing how the missions of European universities are carried out. Empirically, we can observe, on the one hand, that research and teaching, the traditional dual missions of universities, are no longer conceived solely as decentralized activities in the hands of individual academics and the academic community. On the other hand, new missions emerge, for example, the direct transfer of knowledge and technology to society, termed the 'third academic mission', as well as tackling grand challenges, the promotion of equal opportunity, internationalization or sustainability. Both kinds of missions have increasingly become institutional missions with central importance attached to the university as an organizational actor embedded in wider social environments. The missions complement or substitute for interactions between individual faculty and the outside world as in Kerr's book. The resulting tensions between the two different ways of organizing activities and allocating responsibilities to achieve universities' missions in Europe – either faculty- or community-based or driven by the university as an organizational actor – are at the center of the following deliberations on the European university as a multiversity.

The chapter is structured as follows. Against the backdrop of the decentralized structure of the European university, which resembles Kerr's faculty-driven multiversity, the more recent transformation of the university into an organizational actor will first be briefly outlined. Building on this foundation we provide empirical evidence on how the university's missions are organized in one national system in Europe, namely Germany, hence delineating the resulting tensions between the above-mentioned two forms of organizing activities. In this section, we will focus on four areas: organizational activities, research, teaching and the third academic mission. We conclude the chapter by summarizing the main results and outlining future directions for further research. Although throughout the chapter we by and large speak of the European university, thus deliberately abstracting from the heterogeneity of European universities, in this section we will be more explicit about the necessity to take different national systems and different types of universities into account.

The European University Between Decentralization and Organizational Actorhood

Traditionally, the European university is organized in a decentralized fashion. Comparative analyses of universities and university systems in Europe show strong differences across them (Clark 1983). However, a common characteristic lies in the significant role of academics and the academic community as the main internal governance actors, which precludes a more centralized organization of the university's missions. We might take a brief look at the three national systems in Europe that had the strongest impact on shaping higher education both in Europe and on a global scale: France, Germany and Great Britain. For France, Musselin (1999) has shown that until the 1990s there was hardly any organizational spine within universities. Correspondingly, university professors did not identify with their organization, and the state focused on disciplinary, but not on organizational boundaries when it came to regulating universities. As Musselin sums up: "Nowhere was a university considered as an entity" (1999, p. 45). In Germany, the traditional model was a prime example of a system based on strong state authority and an equally strong academic oligarchy. There was hardly any room or legitimacy for the organization as an independent decision-making actor. The advent of the 'group university' in the 1970s slightly weakened the very strong role of individual professors and their community by giving participatory rights to students, non-professorial academic staff and non-academic staff in university decision-making processes. The university as an organizational actor, however, was still to come. Compared to France and Germany, in Great Britain the state had a much weaker position vis-à-vis universities. Here, faculty guilds dominated, and collective academic decision-making was emphasized. As this system "has placed strong authority at the bottom" (Clark 1983, p. 128), universities were subject only to a limited degree of centralized power and accountability. In this respect, despite all their differences, the three systems converge to a large extent.

Currently, we are witnessing the transformation of the university into an organizational actor, i.e., an integrated, goal-oriented and competitive entity, where academic missions are carried out by means of increased reliance on the organization itself, and not solely by the academic community and its members. By referring to the international research literature on higher education, organization and science studies in very different national systems we can observe five mutually reinforcing elements that indicate the shift from a loosely coupled, decentralized expert organization to a strategically acting, managed organization (for the following see the empirical accounts by Paradeise and Thoenig 2015; Berman and Paradeise 2016; Bleiklie et al. 2017; Musselin 2017; Hüther and Krücken 2018).

First, the standardized measurement of performance by indicators (third-party funding, publications, patents, graduates, diversity, internationalization, etc.) is a central and common element. Such indicators are measured at the overall level of the university. Within the organization, it allows university leadership and the central administration to compare departments and other academic units. Externally, it

allows the university to position itself as a competitive actor vis-à-vis other universities, in particular when competing for resources (funding, students, researchers etc.) and ranking positions. Likewise, the university can be addressed as a coherent entity by the state, for example via target agreements. In such a frame, the university is more than the sum of its parts, and the multiplicity of its missions is carried out by the organization itself.

Second, the creation of an individual organizational identity is part of the transformation process. This is remarkable because the university has traditionally rather been less understood as an individual organization, but instead as a global and, at times, national institution, i.e., a broad and taken-for-granted concept, which has to be diffuse and vague in order to be recognized as an institution. Complementarily, the missions of universities, i.e., research and teaching, are equally broad and taken for granted within the entire university population and its environment. Currently, however, most universities are developing individual strategies, related documents like mission statements, and concrete organizational goals, thus attempting to create an individual organizational identity.

Third, hierarchical decision-making structures are being created within universities. Traditionally, rectors or presidents and deans were academics who were elected to these offices for a limited time period. With regard to their peers, the other professors, they acted as a *primus inter pares*, not as a superordinate whose task it is to implement organizational goals and decisions. With the advent of university reforms in Europe about 20–30 years ago, national university systems – by and large – shifted towards a more managerial governance system in which presidents and deans were given more decision-making power vis-à-vis the academic community and its members.

Fourth, we find the establishment of greater managerial capacities in universities, manifested in the increasing elaboration, expansion and differentiation of formal organizational structures. A contemporary university provides formal structures for a variety of old and new missions. These include units for research management and quality of teaching that contribute to traditional missions, but units for technology transfer, public understanding of science, and gender and diversity management have also been created for new missions. Previously, the academics were solely responsible for traditional missions, while the organization's main task was not to interfere. As a consequence, university administration is typically lean when compared to other organizations. Administrative units and staff responsible for old and new missions are now well-resourced and foster the concept of the university as a strategic organizational actor, willing to implement its goals by managerial decisions and subsequent intervention. In addition, although not to be considered a profession as defined by sociology and organization studies, university management is becoming increasingly professionalized through academic programs, networks and exchange. This creates common role models and identities, and so-called best practices for the enactment of organizational actorhood are being diffused.

Fifth, external advice plays an increasingly important role for the contemporary university. Again, much of this advice does not play out in a decentralized fashion

as is the case, for example, with peer review among academics. By targeting the university as an organization, we see developments in the higher education sector that began in the business sector and increasingly affect other types of organizations as well, such as public administrations, hospitals, or social welfare organizations. In a broad ecology of external advice, including governance boards, accreditation or evaluation agencies, and audits, management consultancy is of particular interest. In accordance with research on management consultancy, one might assume that management consultants act as carriers for the transsectoral and transnational diffusion of broader ideas and scripts concerning proper organizational structures and behavior (Kipping and Engwall 2002).

Based on this brief summary of prominent trends in European universities, which though to a different degree have an impact on universities, we can assume that the organizational level is taking over an increasing role in shaping universities' missions. However, the discussion has so far remained rather abstract and at the level of an ideal type of university organization – ideal in the Weberian sense, which is a methodological device and does not imply that the type is something normatively desirable. Empirically, however, the situation is far more complex and the remarkable differences between national systems and universities have not been taken into account so far. In the next section, some of the complexity will be highlighted by drawing on the German system (for a broader account on these and related changes in the German system see Hüther and Krücken 2018). By focusing on one national system, we deliberately abstract from the heterogeneity of national higher education systems and their embeddedness in wider cultural, political and economic structures. In Germany, for example, due to its size and well-developed funding structure, the role of the EU is far more limited in shaping the research mission than in other European countries.

The Current Organization of the University's Missions: Examples from the German Case

In this section, we will first discuss some of the aspects that are an integral part of the organizational actorhood described above before we then focus on the traditional twin missions of universities, research and teaching, and, in concluding, refer to the role of the organization in carrying out the so-called third academic mission. In all four areas – organization, research, teaching, third mission – however, we do not observe a straightforward transformation when focusing on the German case (for a similar account on the outreach activities of Swedish universities see Broström et al. 2019). Instead, the whole process of constructing universities' actorhood is fraught with conflicts, uncertainties, and ambivalence with regard to the role that the organizational level can and – to put it normatively – should actually play vis-à-vis the academic community and its individual members (see also the empirical and theoretical analysis by Maassen and Stensaker 2019).

Organization

We would like to highlight four examples from the German case to illustrate the organizational level: (1) university management and leadership, (2) internationalization, (3) the role of external consultants, and (4) the definition of academic freedom.

Since the 1990s, *university management and leadership* are certainly playing an ever-stronger role in the German system. Since the German education system is federally organized, when considering legal regulations, the higher education laws of the 16 German states (*Bundesländer*) have to be taken into account. In all 16 states, the formal decision-making power of presidents and deans increased vis-à-vis academic self-organization in the senate or departmental units. However, empirical studies have shown that consensual decision-making still prevails in German universities, even though hierarchical decisions could have been implemented. The formal power gained by presidents and deans is hardly exercised, and the role-perception of university leadership is by and large collegial. Likewise, though one can witness a strong increase in university management in very different areas, when these units and staff deal with members of the academic community it is usually in an informational and advisory capacity. They hardly act as strong decision-makers vis-à-vis academic staff as their status when dealing with professors in particular is rather low and their legitimation uncertain. Therefore, though we see an increase in university missions centrally defined by university leadership and management, they are hardly enforced vis-à-vis the academic community and its members, independent from the type of university and related disciplines (Kleimann 2015; Bieletzki 2018).

Internationalization is a second aspect to be further discussed. The history of the European university cannot be considered without taking into account international researchers and students. At the beginning of the twentieth century, Germany was a magnet for foreign scholars and students. After losing its importance, in particular due to two World Wars, the Nazi regime and the ascent of American research universities as hubs for excellent scholars and students, currently, at the beginning of the twenty-first century, German universities are again playing a greater role in international collaboration and exchange. Traditionally, international exchange, for example, was based on individual activities by researchers and students who came to or left Germany to work and study, typically within academic research networks or by applying to study in specific programs. These activities, which are by and large driven by the academic community and individual researchers and students, are still of great importance. Apart from the initiatives by students and researchers, however, internationalization has become an institutional mission of German universities since the late 2000s. This trend of defining internationalization as an institutional mission becomes visible in the myriad of activities instigated by international offices, which have grown significantly over time. Here we can also see that the increasing role of the organizational level can only be understood by referring to the political and funding environment of German universities. To further elaborate the role of political support, we refer to three prominent examples that have had wide

repercussions for internationalization as a new institutional mission of universities. First, in 2017, the German government adopted a strategy explicitly emphasizing the importance of internationalizing teaching, research, and science in general. This strategy is intended to achieve a variety of goals, from strengthening the national innovation system to addressing greater challenges on a global scale. The German Federal Ministry of Education and Research plays a central role in shaping and implementing this strategy by devising and funding specific programs. Second, the DAAD (German Academic Exchange Service) is increasingly funding collaborative projects that foster international cooperation at the institutional level, while traditionally individual academics and students were at the center of DAAD funding activities. One of the larger and most ambitious recent DAAD programs, for example, is called 'Strategic Partnerships and Thematic Networks', which fosters worldwide collaboration at the university level that ultimately should lead to self-supporting and sustainable structures in international collaboration even when public support via the DAAD has expired. Third, the HRK (the German Rectors' Conference) promotes internationalization at the organizational level of universities. Most important in this regard is the audit 'Internationalization of Universities'. This project helped more than 70 universities to create a strategic plan for their internationalization, hence fostering internationalization as an institutional mission. Though such activities strengthen the part played by university leadership and management in internationalization, they can hardly be carried out without active support from the academic profession and its members.

A third example of changes at the organizational level in German universities is the increasing role played by *management consultancies* (Serrano-Velarde and Krücken 2012; Seidenschnur and Krücken 2019). This example illustrates markedly the attempt to understand universities as organizational actors, since similar to business firms, universities' willingness to seek external advice from management consultants is becoming a standardized routine. At the same time, when analyzing consultancy processes it becomes obvious that traditional elements of the academic expert organization, its institutional identity and related course of action have been retained. In our analyses, we could regularly observe conflicts between the discursive logic of the academic profession and the efficiency- and enforcement-oriented logic of management consultancy. Interestingly, this was the case not only in German universities, but also in British and French ones, which were also analyzed. These conflicts crystallized when it came to organizational decision-making processes. For the universities we analyzed, a deliberate decision-making culture was of central importance. As we could detect this pattern in very different universities in all three countries, we assume that herein lies the strong institutional identity of the university, independent of more recent changes towards organizational actorhood. Consensual and participatory decision-making processes are a particular challenge for management consultants. Such processes contradict both their experiences in business firms and public administrations as well as their identity as efficient problem solvers. Correspondingly, management consultants prefer semi-standardized problem-solving knowledge, while in universities knowledge that is openly structured, theoretically well-founded and methodologically sound is

cherished. Obviously, one has to further differentiate between decision-making areas and topics in management consultancy. There is, for example, a considerable difference between strategic consulting, where the focus is on advancing the concrete missions of the consulting university and where we could detect the above-mentioned patterns and conflicts, and IT consulting, where all relevant actors can much more easily agree on common definitions and procedures. Nevertheless, this example shows that the transformation of the university into an organizational actor is an open and contested process that does not unfold in a straightforward and unequivocal way.

Academic freedom is a fourth area where we can observe conspicuous tensions between strong organizational actorhood, on the one hand, and the traditional image of the university as a decentralized organization where individual university professors are the main units of decision-making, on the other. For Germany, it is important to note that academic freedom is a constitutional right. Following Article 5.3 of the German constitution, "Arts and sciences, research and teaching shall be free." In the past, the Federal Constitutional Court has interpreted this freedom of research and teaching as an individual right. Against the background of Germany's experience with the Nazi dictatorship, this protects individual academics from direct state and organizational intervention. However, university reforms which have led to increased university autonomy also have implications for the definition of academic freedom: Are decentralized internal structures, where the most relevant unit is the individual professor, still appropriate, or are we in need of a more organizational definition of academic freedom, in which the empowered organization, represented by university leadership and administration, has a say, too? Currently, this issue is being hotly debated in German universities. In Germany, New Public Management reforms that strengthened the organization vis-à-vis the individual professor and the academic community as decision-makers were implemented only moderately in comparison to some other European countries, also because the Federal Constitutional Court consistently safeguarded academic freedom as an individual right to be protected against the state and the organization. Advocates of New Public Management reforms might label this approach too timid and not up-to-date. Nonetheless, given current opposition movements in countries like England and the Netherlands, where New Public Management reforms were particularly strong and, as in the latter case have partly been reversed due to protests from academics and students, this approach might be more appropriate in academia than critics assume.

Research Mission

The German Excellence Initiative is a good example for the increasing organizational shaping of the research mission. In addition, given its focus on competition, one central aspect of the organizational actorhood of universities can be illustrated as well. Although a national initiative, the Excellence Initiative is embedded in an environment of global activities, in particular rankings. Furthermore, the German

Excellence Initiative has influenced a range of European countries, where it has triggered a broad international wave of comparable initiatives (for Denmark see for example Aagaard and de Boer 2017; for France Boudard and Westerheijden 2017; for Spain Seeber 2017). From 2006 through to 2017, a total of EUR 4.6 billion had been invested in high-quality research to further the international visibility and competitiveness of German universities and the German higher education system overall. In 2016, the decision was taken to extend the program, at least until 2032. The program started with three lines of funding: graduate schools, excellence clusters and institutional strategies (concepts for the future). The first line will run out, while the other two will continue. All major universities participate in this highly competitive and selective process.

The Excellence Initiative is clearly fostering the self-perception of the university as a competitive organizational actor. Traditionally, competition in research played out on the individual and systemic level. Individuals compete for reputation within the scientific community, and despite all their differences especially with regard to normative evaluations, eminent sociologists like Robert Merton and Pierre Bourdieu concur in the assessment that with regard to the science system, competition is a major driving force in the development of science and scientific knowledge (Merton 1957; Bourdieu 1975). With the Excellence Initiative, the university organization tends to position itself as a competitive actor vis-à-vis other universities. For this purpose, it assumes responsibility for fostering collective action within the organization on its research mission, which has traditionally been conducted in a decentralized fashion by faculty, research groups, institutes and departments. University leadership and management play a hitherto unknown role in this process, promoting collaboration across these units. Research clusters require broad interdisciplinary collaboration, and the necessary involvement of different units is even stronger when competing for institutional strategies, where leadership, management, academic and service departments are equally involved.

One particular aspect of the new competitive organizational actor is the reformulation of gender issues that came with the Excellence Initiative (Engels et al. 2015). Writing a concept to promote gender equality is a necessary requirement for an application. This provides evidence for the high value attached to gender equality within this funding environment, a value that cannot be ignored under competitive conditions. At the same time, the whole issue is no longer framed in terms of equality of opportunity, justice or fairness, but instead in terms of competition, i.e., the competitive advantage for the individual university and the overall university system if all talents can be mobilized. These efforts are connected to the shifting of responsibility for gender issues in universities. Previously, they lay in the hands of equal opportunity or women's commissioners who were by and large rather detached from university leadership. With the Excellence Initiative, equal opportunities have become a strategic and competitive issue for the entire university, its leadership and management, hence becoming part of broader human resources and organizational development.

Though the Excellence Initiative has been discussed as an example of increasing organizational actorhood with regard to the research mission of universities so far, once again we do not observe a straightforward decline in the relevance of the

academic community and its members. Instead, the relationship is rather dialectical and at times conflictual. The review process is organized along well-established standards of academic peer reviews, here international peer review in order to guarantee fair academic competition when all major German universities apply. Likewise, the researchers being funded more often than not belong to the higher stratum of their discipline, while experts at the margins of different disciplines, newcomers and outsiders play a considerably smaller role in the process (Münch 2007). This mirrors the well-known Matthew effect in science, according to which academic reputation has to be seen as a self-reinforcing and socially stratifying process (Merton 1968). As the Excellence Initiative draws particularly strongly on academics with a high scientific reputation, strong academic veto players might emerge that counteract the transformation of the university into a coherent, integrated and goal-oriented actor. Organizational subunits and individuals – i.e., the traditional decentral actors carrying out the research mission – gain a degree of power within the entire organization, which cannot be ignored by any university leadership. Furthermore, the academic senate as the major decision-making entity representing the academic community puts university leadership under close scrutiny, in one case even leading to a unanimous vote for the dismissal of a university president after the application failed.

Teaching Mission

The teaching mission is the second core mission of universities where the overall trend towards organizational actorhood is tangible. In Germany, the approval of study programs was traditionally in the hands of the ministries of higher education and research of the 16 states. Following the previously established governance model, the main actors were central state authorities on the one hand, and the decentralized academic community on the other. The latter assumed responsibility for creating study programs and assuring the quality of teaching. With the establishment of the accreditation system, which came into place with the Bologna process, the responsibility for approving study programs shifted to accreditation agencies. In the course of this process, individual programs were more closely scrutinized. With the shift towards accreditation, the university as an organization assumes a much stronger role than before, and one can witness an increase in strategizing and management at the organizational level. The creation of study programs has progressively turned into an activity that also involves university leadership and administration. The competitive positioning of the university in areas of study where a specific profile and related expertise vis-à-vis other universities can be claimed has partly substituted, partly complemented the traditional bottom-up process of creating programs and applying for their approval. Under the new regime, university leadership plays a much stronger role than before. Likewise, very different administrative units have been created that accompany and shape the process. Units for teaching evaluation, higher education didactics, university and departmental development, employment and career services, for example, nowadays shape the academic teaching mission.

However, here one can also see that the academic community and its members are still of central importance in the organization of the teaching process. On the one hand, the majority of the review boards in accreditation processes consists of academic peers. Following detailed analyses, their decision-making behavior is driven by the informal norms of good academic teaching practice, while the formal standards, rules and regulations that came into place through accreditation and related agencies are of minor importance (Baumann and Krücken 2019). On the other hand, due to the traditionally strong position of university professors in the German system that is safeguarded by the constitution, the decision-making power of university leadership and administration vis-à-vis individual faculty in the organization of teaching is limited. This holds true not only when it comes to fostering innovation in teaching, but also when teaching that is evaluated as poor can hardly be sanctioned. Therefore, many of the newly created administrative structures within universities resemble what Meyer and Rowan (1977) called the loose coupling of an organization's formal structure and its activity structure. While the formal administrative structure displays the new image of strong organizational actorhood, which is also cherished in the relevant environments of universities, the activity structure of teaching and its organization has been altered to a much lesser extent.

It is interesting to see whether and how the recent shift from the accreditation of individual study programs to accreditation at the systemic level (i.e., university level) has led to changes in the locus of power and influence. System accreditation implies a shift from the decentralized, departmental level of accreditation to the central level. As a result, other actors, primarily in university leadership and administration (e.g., quality management, legal units) gain power and influence over the subject-specific expertise at the decentral level of universities. Likewise, peer review is less focused on the quality and coherence of the study programs and more on the university's quality management system. Even in such processes academic peers are still of major importance. However, with system accreditation for teaching, i.e., one of the two core missions of universities, the transformation of the university into an organizational actor with a strong role for leadership and central administrative units at the expense of the decentralized expert organization becomes tangible.

Knowledge and Technology Transfer as the Third Mission

The contributions of research and teaching to society are indirect and fraught with uncertainties. Only in hindsight can one assess whether research serves societal well-being, most prominently through innovations in medicine, and whether university teaching meets the expectations of the labor market, particularly in rapidly developing fields like information sciences, where knowledge can be easily outdated. Therefore, over the last roughly 30 years there have been strong demands from national and EU policymakers that European universities should directly contribute to society. Accordingly, knowledge and technology transfer is widely perceived as a third academic mission on a par with research and teaching. Though the

social sciences and the humanities are also expected to be involved in this mission, the main focus of knowledge and technology transfer between university and the economic sector lies on the natural sciences and engineering. Transfer offices, science parks and entrepreneurship education, for example, demonstrate the willingness of universities to act strategically and purposively when dealing with a new societal expectation.

In Germany, the direct transfer of knowledge and technology between universities and industry has a long tradition, going back at least to the end of the nineteenth century. The creation of science-based industries in the fields of pharmaceuticals, chemistry and electrical engineering, with firms like Bayer, BASF and Siemens, cannot be understood without taking into account the role of universities, their research and teaching missions. However, transfer was rather a side-product of individual activities on the part of professors, which were carried out in a highly decentralized way. Organizational actorhood was still to come. The situation changed significantly in the 1980s when German and many other European universities started to create technology-transfer offices. The idea was to emulate the success stories of American research universities like MIT and Stanford, and the new offices symbolized technology transfer as an institutional mission of universities. In the 1980s and 1990s, technology-transfer offices were set up at nearly all public German universities. A further step towards assuming organizational responsibility for the third academic mission came in 2002, when the title to patented inventions based on academic research shifted from the university professor to the university. As a consequence, in addition to transfer offices that had been created at the level of the university, the federal government started funding patent-commercialization agencies (*Patentverwertungsagenturen*) at the state level. With these two initiatives, the very nature of transfer changed significantly. The creation of university transfer offices and the shift of title mean that the responsibility for technology transfer has shifted from the individual to the organization. Though technology transfer has become a strategic organizational issue for the university, the limits of organizational actorhood are clearly visible, too. Technology transfer between universities and industry is a highly personalized process. Transfer offices can act on behalf of academic researchers, but they can hardly substitute for their active involvement in innovation processes that cross the boundary to partners in industry. This problem is two-sided. On the one hand, university–industry relations require a high degree of trust between partners from both sides. Trust building is a tedious and iterative process among those persons in the university and the industry who are actively involved, but not among organizational units. On the other hand, research implies a high degree of very specific expertise consisting of formal and tacit knowledge, which also requires the active involvement of academic researchers. Staff members of transfer units can support such activities, but they can hardly substitute for the direct engagement of academic researchers. As a result, despite all the organizational activities, we still see the persistence of decentralized activities by transfer-oriented academics who by and large ignore transfer offices and continue to rely on their personal relations to companies.

Despite these findings, transfer offices do play an important role, although different from what one might have expected. Following Meyer and Rowan (1977), transfer offices are part of the formal structure of universities. They mainly serve as a showcase for presenting universities to their political environment, in particular state ministries responsible for universities, which from the 1980s onwards required more third-mission activities in addition to teaching and research. These formal structures, however, are only loosely coupled to the activity structure, which implies the heavy reliance on personalized transfer mechanisms. Such an organizational response is typical for organizations confronted with external expectations they have to adapt to. This is a major problem for all policy initiatives directed at universities. It can be assumed that such processes also take place when implementing other expectations – Meyer and Rowan (1977) term them institutionalized myths in the social environment of universities – that should further develop the missions of universities. Here, one might think of the calls for 'diversity' and 'gender equality' or the expectation that universities should tackle 'grand challenges.' Therefore, one should be very careful not to take the creation of formal and externally visible organizational units as an indicator of far-reaching organizational and institutional change. One has to reckon with the possibility that only formal structures will change and that, at the level of actual behavior, business will continue as usual.

Summary and Discussion

Summarizing the main results, we can conclude that the contemporary European university can hardly be conceptualized as a community. In this, we see a parallel to Kerr's (1963) analysis of the American research university of his time. However, and beyond Kerr's characterization of the university as a multiversity, we are currently observing a prominent trend towards transforming the European university into a coherent, integrated, goal-oriented and competitive organizational actor. Over the last roughly 20–30 years, this trend can be detected in very different national European systems. It has led to changes in the locus of responsibility for carrying out the missions of universities, which has shifted from decentralized and hardly integrated units to the organizational level. After having briefly discussed the main elements of the new organizational actorhood of universities in Europe, we provided empirical evidence by focusing on German universities as an example. Here we could show that the transformation of the university into an organizational actor is far less straightforward than one might expect from theoretical conceptualizations. Instead, the whole process is strongly shaped by historical path dependencies and fraught with uncertainties, complementarities and paradoxes. Despite the overall increase in organizational actorhood in all four areas analyzed – organization, research, teaching, third mission – and the related organizational responsibility for the university's missions, these missions are still heavily shaped by the academic community and its individual members. At times, the sense of community and the

role of individual faculty can even be strengthened as a counter-reaction by academics against increasing organizational actorhood, because power in universities is hardly an unequivocal zero-sum game.

Conceptually and empirically, we tried to deliberately abstract from the heterogeneity of European universities. The overall concept was broad and encompassed very different national systems and different types of universities, while the concrete empirical examples were from only one country, Germany, without taking other countries and the heterogeneity of German universities into account. This leaves a lot of room for further reflection. On the one hand, international comparisons are necessary in order to assess how the degree of organizational actorhood is shaped by specific national conditions (Whitley 2012). As we have shown, for example, organizational actorhood in Germany is shaped by the federal system, the 16 states and the related multitude of higher education laws, and it is limited by the Federal Constitutional Court and its interpretation of academic freedom as an individual right that has to be protected vis-à-vis the state and the university organization. This implies the need for cross-national comparisons of higher education systems. However, on the other hand, universities are not only embedded in national systems, but in different organizational fields that may well crosscut national boundaries (Hüther and Krücken 2016). Here one has to distinguish between a global field, a European field, and several national, state, and regional fields. The European university is an abstraction. Further research has to combine its embeddedness in both national systems and organizational fields that do not necessarily overlap. The analysis of resulting tensions might generate a more nuanced picture of the missions of European universities, the way responsibility for these missions is assumed and allocated, and how the missions are actually carried out.

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Chapter 11
The Idea of a Global Market for Universities

Linda Wedlin

Introduction

In the contemporary debate on university governance and management, we are overwhelmed by the image of a global knowledge game currently shaping the strategies and practices of our higher education and research organizations. This image features a general quest for increasing knowledge and innovation for the general benefit of society as well as for the specific competitiveness of our nation states: increasing knowledge will supposedly help to solve a number of pressing social, economic and political problems; increasing innovation will help solve future problems of similar kinds; and strong knowledge-development capacities will help our nations compete in the global 'knowledge economy'. In this competitive knowledge game, universities and other higher education and research organizations have become key actors: it is through research and teaching in such institutions that this knowledge game can be played, and positions in the game improved. This has put universities at centre stage of much societal debate.

Extensively supported by the evolving global discourse on 'world class universities' (Huisman 2008) and the ever-increasing influence of global rankings lists on higher education governance and steering (Hazelkorn 2015), universities are increasingly shaping their missions to serve the function of global market players. Formulating missions to become 'world-leading' or 'world class', or more simply, as the case of my own Alma mater: "[to] strengthen its position as an international research university" (Uppsala University 2018), is today shaping university strategies and activities. We can note, for instance, how the international activity of universities is increasing (branch campuses abroad, international student recruitment, increasing recruitment of international faculty, etc., see e.g. Marginson 2006, Wilkins and Huisman 2012); how universities engage in extensive marketing

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activities to attract students (and tuition fees) worldwide (Bok 2003); and how universities emulate global business firms to become more 'manageable' and more strategic, rational and governable actors that have the ability to act on the market for higher education (strategic plans, internationalization strategies, research focus; see e.g. Musselin 2007, Whitley 2012).

The idea of a global market for universities is underpinned by the notion of competition. The notion of competition, particularly global competition, is ever present – in public policy discourse, in governance reforms, in university strategy work, and not least in the public debate on higher education and research – and is instrumental for the idea of a global market. The ideals and practices of competition have become the central mechanism whereby universities transform, both through their own efforts to compete and through other actors' attempts to regulate and govern the way they compete. It is through the ideals as well as the practices of competition that the idea of a global market for universities has taken hold. But what does the idea of competition entail in this setting?

In this chapter, I will deal with the notion of competition in the university field and explore what this notion entails. Who is competing, with whom, and for what? I will first discuss competition in relation to governance change and the characteristics of the higher education and research fields. This will be followed by an exploration of how competition is used in the current policy discourse both locally and internationally, drawing from empirical work on Swedish university reforms, as well as European and international policy discussions and organizing efforts. I conclude here that competition is primarily global, focusing on the university, and with research as the main currency of the global competition game among universities. I suggest that an analytical distinction between two forms of competition can be useful in helping us to understand the competitive dynamics of the university field: competition for status versus competition for resources. Finally, I discuss how this distinction can detangle some of the complexities of competition in the higher education field and be used for further inquiries into the character, form, and consequences of a global market for universities.

Global Competition and Governance

Global competition rhetoric has developed alongside increasing marketization efforts of higher education, and in increasing reliance on market mechanisms for governance. Several observers have noted, however, that the concept of a 'market' in higher education is not straightforward: there is no unified market, and in some places there are also limited conditions for a market to even exist. Rather, the market is at best a quasi-market, operating as much in relation to state regulations and other special interests, as it does on market dynamics. While the US market is often considered the most developed, with large student bodies contributing tuition fees, private accreditation agencies controlling quality, and an extensive share of private investment in higher education, this market is also far from ideal. As Roger Geiger

notes, it is a "strange sort of market – one in which prices are not what they seem to be and competition is largely confined within market segments" (Geiger 2004, p. 161).

Closely linked to marketization processes and governance change to allow for market coordination efforts in higher education (see Chap. 1) is the notion of competition. Competition can be considered a mechanism used to create market-like features in a social area. Theoretically, we can conceive of competition as a mechanism only loosely coupled to markets: there can be competition without markets, and markets without competition. Competition can exist, and be created, with or without a market, or with partial market features (Arora-Jonsson et al. 2020). Competition, rather, holds the most basic idea that two or more parties are competing for something scarce, usually resources of some kind. Arora-Jonsson et al. (2020) add a relationship character to this view, arguing that competition is a "relationship that comprises three core elements: actors who recognize each other's desire for something that is recognized as scarce" (p. 3). With this definition of competition, it can be detached from other features of a market, such as price. For higher education, this means that competition can be seen as a tool to instil market-like features in the higher education field but does not imply that there 'is' a market out there. Thus, we can see efforts to create or stimulate competition as a governance mechanism, linked to contemporary ideas about markets and marketization efforts in the field (Engwall and Weaire 2008; Wedlin 2008).

Notions of Competition

We find strong competition rhetoric in many places in the higher education and research fields: in relation to governance and policy reform, in universities and university strategies, in relation to excellence and research funding systems, and in relation to global university rankings. Investigating this rhetoric in more detail, in the following I will discuss some of the prominent features of the competition discourse, based on three questions about competition: who is competing, with whom, and for what?

Who Are the Competing Entities?

The notion of competition is not unknown in science. In fact, there are good reasons to argue that competition is one of the central features of scientific work, as the competition for 'priority' in scientific discovery is an important driver for scientists and a means to gain academic recognition and prestige. In such a Mertonian sense, this competition supports the communal idea of sharing research results in the academic community and provides motivation for scientific work (Merton 1957). On the other hand, this competition can also lead to priority disputes and thus induce

dysfunctional behaviour among scientists such as being secretive and reluctant to share research results (Hagstrom 1974, p. 14).

For this notion of competition, it is clearly the individual scientist that competes, most notably for priority and recognition in the scientific field. This notion of competition is visibly expressed in many features of the current research and higher education systems. The scientific system is in many ways constructed around this idea of competition, and it is built into current evaluation systems to an increasing extent. Researchers compete, and are evaluated, for positions (at universities or research institutes), for publication (in top journals), for funding (in national and international competitive funding schemes), and perhaps also increasingly for general visibility and status in the science field. The construction of competitive funding schemes, as an example, explores this notion of competition, and it is increasingly used to distribute governmental financing to science and research in many national contexts (Whitley et al. 2010).

While competition as such is not new to science, there is an increasing notion of competition in the higher education and research fields that constructs universities as the competing entity. The past decade we have witnessed the reform of many higher education and research systems across Europe, and beyond, for instance Japan (see Kitagawa and Oba 2010), where the notion of universities as competing units has moved to centre stage (Paradeise et al. 2009). Through reforms aimed to strengthen the strategic actorhood of universities (Krücken and Meier 2006), by constructing them as internally cohesive and externally autonomous actors capable of forming and implementing independent strategies and actions (Musselin 2007; Dobbins et al. 2011; Whitley 2012), universities are increasingly framed as 'competing', and conditions are being set in order for them to do so.

The notion of competition and the framing of universities as the competing unit have explicitly guided the transformation of many higher education and research systems. Sweden provides an example for this process. The Swedish higher education system is one traditionally characterized by low levels of market ideals and principles guiding governance and steering. In the characterization of Clark (1983), Sweden was positioned as being strongly guided by the state and state regulations, and with only limited influence from the academic oligarchy and with hardly any facets of the perceived 'market' involved. The system has been – and to some extent still is – characterized by large state involvement in anything from funding and evaluation to admissions, and it has very few private actors (universities or university colleges) offering higher education programmes and courses. While some of this has changed gradually over time, involving several instrumental reforms during the past few decades concerning matters such as funding, degree structures, and governance issues (Hedmo 2017), this development has been increasingly, and most explicitly, guided by the notion of competition in recent years.

One of the explicit examples of the transformation of universities into strategic, and thus competitive, actors can be noted in the 2011 Government Bill commonly called the 'Autonomy Reform'. This reform was – as the title suggests – focused on the universities and the idea of creating these as autonomous organizations, in this context specifically meaning to liberate them from strict top-down governance

control and make them, as some argued, 'free' from state regulation (Wedlin and Pallas 2017). This bill – and the spadework of the reform – are laden with competition rhetoric and clearly focused on introducing universities as competitive actors. This is suggested in the introduction to the bill (Prop. 2009/10:149, p. 16. My translation from Swedish):

> State universities and university colleges need to be autonomous in order to meet the new challenges and the increasing demands for both collaboration and competition [in the global playing field].

Swedish universities have also picked up the competitive idea. They almost immediately engaged in formulating and reformulating their strategy documents. Only a year after the reform, in 2012, we could clearly see traces of competition rhetoric in these documents. In some of the documents, the idea of competition was spelled out explicitly. Linköping University, for instance, expressed the reform work that was initiated as an attempt to strengthen the understanding of competition within university conditions (LiU Strategic Plan 2012, pp. 4–5. My translation from Swedish):

> A starting point for our strategy work is that all of the University's activities are increasingly subject to competition, and significant effort has been invested in increasing the awareness of this. […] The goal is to make the culture inherent in the University reflect this awareness of the increasing significance of competition and the partly changing conditions.

With universities being assigned, and willingly taking on, the role of strategic and competitive actors, the competition rhetoric seems a bit ambiguous and rather vague. In the strategy documents, it is not very clear how we should understand competition, what it is about and what is required of the universities to assume the role of competitive units. There are very few specific references to competitors or aspects of competition.

Competition with Whom?

With universities framed as the competing entities, the question is: with whom are they believed to compete? Here, the competition rhetoric seems to give us a clear message: the competition among universities is global, where universities from different contexts, nations and regions are competing with one another. This is the competition rhetoric implicitly guiding the national reform in the Swedish case, as suggested above, and it is the one being picked up by the universities.

The rhetoric of a global competition for universities is, however, a discourse that goes far beyond the national reform context. It is a pervasive and prominent theme in a global policy rhetoric characterising the higher education and research debates across the world (Shin and Kehm 2012). This theme has been prominent for well over two decades, following an intensified globalization debate and the institutionalization of the belief in higher education as a route to economic, cultural and social progress. This has driven an expansion of higher education everywhere and has

placed competitions in higher education both within and across nations as "core elements of successful participation in global progress" (Ramirez and Meyer 2012, p. 257). This makes the rhetorical strategies and practical efforts to construct such competition particularly powerful, as it unites the efforts of a large and diverse set of actors to strengthen the idea of a global market for universities, and to set its rules.

Among the mechanisms setting rules for the global competition of universities, we find the global ranking systems playing an increasingly prominent role (Wedlin 2008; King 2009; Shin et al. 2011). Initiated on a global scale in the early years of the 2000s, rankings such as the Academic Ranking of World Universities produced by the ShanghaiRanking Consultancy in Shanghai (previously by the Jiao Tong University), the Times Higher Education World University Ranking based in the UK, and the QS ranking of top World Universities, have clearly become an endemic feature of the global higher education system. Not only do they build on and help to uphold the view that elite higher education is a global endeavour by comparing universities across different contexts and settings, they also set the frames for competition. Their choice of indicators and measures, and the statistical procedures used to perform the rankings, set standards for comparison and evaluation; in this sense they "facilitate competition, define competitiveness, [and] normalise and celebrate competition" (Cantwell 2016, quoted in Hazelkorn and Gibson 2017, p. 3). In so doing, they also produce winners and losers of competition, powerfully producing an image of a global university field. In short, they are creating a measure of excellence and a gold standard for a global university elite (Wedlin 2006, 2014).

The construction of ranking systems for comparison and assessment is by no means the only development supporting and strengthening the ideal of competition. Closely associated with rankings is the concept of 'world-class universities' (WCU); if not *the* most, then one of the most prominent catchphrases of the global competition rhetoric. Initiated by the same organization that launched the global rankings in 2003, the Centre for World Class Universities at the Shanghai Jiao Tong University in China, the biennial conference on 'World-Class Universities' has been held since 2005. With the aim to "provide a platform for global leaders, senior university administrators, leading scholars and policy researchers worldwide to discuss various issues related to WCU", this conference serves as one of the nodes for the WCU discourse. For their latest conference, in 2017, the theme focused on higher education as a "global common good" (ShanghaiRanking 2018):

> The choice of the above theme reflects the unquestioned view that education is foremost a public good whose benefits spill over to all society. In the era marked by globalization and its profound impact, there is a need to consider education as "a global common good" as only with such approach we can cope with global challenges such as technological transformation and shifting employment patterns, new information and communication technologies, environmental concerns and climate change, social and cultural transformation, etc.

The WCU discourse is thus clearly reflected in the governmental strategies and ambitions to enhance the standing of a few prominent universities within their higher education systems in order to follow the rationalized ideal of national progress. This is implicated in governmental strategies for universities across the globe, such as Russia's '5-100' plan and Nigeria's '2-200-2020' plan (Hazelkorn 2015).

These are plans to have five universities in the top 100 position in international rankings in the former case, or two universities in the top 200 by 2020 in the latter. Other attempts to build notions of world-class universities, as well as to a general 'excellence' discourse prominent in particular in the European debate in the early 2010s (Wedlin 2014), into national university systems are so-called 'excellence initiatives' of various sorts. Starting with the German Excellence Initiative in 2005, more than 30 countries worldwide have now adopted similar programs that build in international competitiveness and performance indicators into systems of national evaluation and funding systems, including China, South Korea, Japan, and Canada (Siwinska 2013). The latest addition is Poland, starting its excellence initiative in 2019 (Siwinski and Bilanow 2019).

The developments described here suggest a set of interrelated dynamics that, when put together, suggest a self-perpetuating system of global competition and competitiveness. As nicely formulated by Ramirez and Meyer (2012, p. 258), the suggested system works in the following way:

> In short, everywhere one travels in our world, one finds national elites eager to improve their universities in global, not national, terms. And, one finds university leaders acutely conscious of their status in a global system and driven to improve it. Lastly, one also finds consultants interacting with university leaders and national elites to help create world-class universities.

Thus we find the global policy rhetoric for competition driven by national educational reform and expansion along the lines of powerful global models of progress, rhetoric that conforms with individual universities' and university managers' work to play by the rules set up by the ideas of competition, as reflected in the strategy documents of universities. With international organizations and powerful actors, consultants and others, actively producing and sustaining the rhetoric as well as organizing the competition and setting its rules, the global competition game is made 'real' both in its form and in its consequences.

Competition for What?

As pointed out by Ramirez and Meyer (2012), however, this global competition game, as well as the models for global progress through the university, is far from given and has only quite recently become institutionalized and taken for granted. This model is largely replacing the ideal of universities and higher education systems as grounded in the nation state, in a national system and a local and regional society. In this view, higher education is important primarily for state building and the creation of 'statehood', rather than for building a 'global common good', as noted above. In the absence of a global state to govern this supposedly common good, the fact is that the authority largely remains with national governments and states to set the institutional and governance frameworks for universities. The regulations, funding structures and reputation bases that are set by national systems thus

bind the activities within universities – both higher education and research – to a local and national context. The problems and struggles of setting up alternative systems transgressing national boundaries, such as the EU attempts at forming a European common market for education and research (see Wedlin and Nedeva 2015), suggest that this authority is not easily challenged, although steps have been taken towards this end.

With the above in mind, it is reasonable to talk about glocalized systems, or systems that are permeated by global models yet remain in some or many instances separate and distinct systems (Drori et al. 2013). In such a systems, the competitive dynamics are likely to be different at the national and the global levels (Marginson 2006). While it is relatively easier to see how competition for students, funding, and resources are played out at a national level, and within the existing institutional structures of a university system, it is less clear how these play out at the global level. What are universities competing for on the global knowledge market?

Here the dynamics appear to be different depending on the activity in question: higher education or research. For higher education, the local embeddedness is distinct (Engwall 2013): educational programmes in most contexts primarily serve a local or a national labour market, and students are to a great extent recruited nationally. Despite this, we do note increasing global activity in higher education, and particularly in some parts of higher education and in some areas of the world. There are burgeoning international student flows, and some international movements of faculty as well. Marginson (2006) notes that the intensified competition for students, faculty, and resources – mainly through student tuition fees – has driven parts of the higher education systems over the past decades, resulting in a situation where higher education is profiled almost as an export commodity in places like the UK and Australia. The influence of this economically motivated market is more limited in other parts of the world, most notably in large parts of Europe. The US, on the other hand, has an intense international as well as domestic student market at least in part (Geiger 2004).

For research activities of universities, the conditions are different. While research is, almost inherently, an international activity, as research and researchers compare, collaborate, and compete with other scientists and research efforts regardless of national contexts, at the same time, research is in many respects bounded by national science systems (Nedeva and Wedlin 2015). If nothing else, research is dependent on funding, and researchers are dependent on positions, recognition, and support from the national science systems. There is one apparent exception to this, however, where funding is distributed beyond national boundaries. The creation of a European funding agency for basic science, the ERC, is a notable example of efforts to break up the national authority in science funding and to introduce ‘European-wide competition’ in science. Distributing approximately EUR 1.9 billion in funding to science across Europe each year, the ERC has become a well-recognized arena for competition, and one where individual scientists compete for funding in what has become recognized as the ‘European Champions League for Science’ (Edlund

2018). This competition has become an important status marker above and beyond the funding it provides, as ERC grantees are granted status as 'stars' and 'winners' in international competition (Edlund 2018). This makes the ERC an important mechanism that in some sense provides a formalization of the individual status competition inherent to scientific endeavour.

The example of the ERC is interesting not just because it is challenging the national authority in terms of funding basic science, but also because it connects in a clear a way to the global market ideal and the global competition rhetoric of the university field. This is because the ERC seem to be producing a reversed 'status halo effect' for universities: in the ERC it is not the researchers that draw status effects from being associated with particularly prominent universities, but it is the universities that can draw status effects from having ERC grantees on their faculty. Thus, we find the number of ERC grants of departments and institutions measured and marketed, training programmes and other support structures for potential ERC applicants developed, and national funding programmes to support 'almost successful' ERC applicants. Increasingly the number of ERC grants is becoming one of the 'success factors' of universities, departments as well as nations, as these are using the number of ERC grantees as an international benchmark (Edlund 2018).

For our understanding of global competition, this example highlights two core features of the understanding of competition. First, competition in the research field is primarily based on competition for status, not resources. While in the ERC case there is competition for resources involved, this competition is rapidly transforming into a competition for status for individual scientists, and even more so for the universities involved. If we also look beyond the example of the ERC, there are no funding mechanisms or other forms of resource competition for research at the global level. Thus, this notion of competition rests on systems of allocating recognition, status, and reputation in a global research environment.

Turning the argument the other way, we can say that research has, to a great extent, become the currency of the global competition for status. As is evident in the ranking game as well as in the WCU discourse and the excellence frameworks, it is research and the research university that are in focus. Research efforts and research output are measured and assessed. Recognition and status in the existing systems are granted through research and research excellence, measured in rankings, prizes, number of ERC grants, and similar. Interestingly, such measures very often also incorporate, and support, measures of individual research efforts, tying these even in formal ways to the individual status struggles of scientists. Systems measuring faculty publications, citation scores, and other bibliometric practices thus exist in symbiosis with global rankings and other status games: bibliometrics is inherent to rankings, and rankings further drive attention to such measures and practices (Godin 2007, Hammarfelt et al. 2017). In a similar way, as noted above, competition in rankings drives a desire to hire prestigious and award-winning scientists, thus drawing on the individual science competition for recognition at its base.

A Global Status Competition for Universities

Starting from the view that the idea of a global market for research universities is underpinned by the notion of competition, we have now explored some of the features of the contemporary competition rhetoric in university governance and organization. In doing so, three features become salient. First, it is clear that this rhetoric clearly frames universities as the primary unit 'in competition'. In national reform efforts, as well as in global policy rhetoric, the university is placed at the centre of competition, and it is the university that should be reorganized, managed, and changed to become competitive. Universities, in turn, conform in trying to envision such competition, and to play by its rules – rules that are increasingly set by global rankings and comparisons. The second feature of competition is thus that it is increasingly created and rationalized globally, and it is considered global in character and form. Competition among research universities is global in reach and is largely guided by global policy objectives and actors. Third, the envisioned competition among universities puts a particular focus on research and research activities of universities, not least through the global rankings and other measures, and in the general quests for excellence and status on the university market. We have also noted that when universities are made to compete, the competitive dynamics are largely different from the individual forms of competition, although clearly – and perhaps increasingly – interrelated.

On a slightly more theoretical note, our exploration of the notion of competition in higher education and research has shown the need to distinguish between two different forms of competition: competition for resources and competition for status. While the two may be related – such that resources can be used to compete for status, and vice versa – they are also clearly distinct (Brunsson and Wedlin 2019). Competition for resources is what most people commonly associate with competition: two or more actors compete for resources of some kind, usually financial resources, but they could also be personnel, knowledge, or other forms of assets. Competition for status, on the other hand, is the competition for recognition, prestige, or attention more generally, which may yield other forms of benefits for the organization, or just be considered an end in itself.

The distinction between different forms of competition helps us further explain the discrepancy between the understanding of global competition and national or regional higher education and research systems, as well as the difference between the competitive dynamics of education and research. While competition for resources – most prominently in relation to research – is largely national or regionally based, competition for status can be, and increasingly is, global. Even though there are examples of global resource competition, both in higher education and in research, these are still rather limited in scope (in research) or limited to particular areas or fields (higher education). The global competition for status, however, is not won by those who are prominent in resource competition for students; it is won by

those who perform well in global competitions of reputation and recognition: those 'winning' international rankings, having the most award-winning and grant-winning researchers, and the most highly cited faculty or the like. Winning resource competitions can, indirectly, lead to better chances in the global reputation game, if resources can be transformed into research prominence (by hiring prominent faculty, for instance). Having resources to begin with, through significant endowments, clearly helps in the status game too, which the prominent private US universities are proofs of.

While competition for status shares many features with resource competition, there are clearly a few differences as well. I will particularly note two important features of status competition that makes it distinct from competition for resources: scarcity and uncertainty. As for scarcity, it is the very ground for resource competition. If there were endless resources available for everybody who demanded them, there would likely not be a great sense of competition. Status can be, but does not have to be scarce. Status competition can occur even when there is an abundance of status; in principle, many can enjoy status at the same time. In these instances, mechanisms can be used to construct scarcity, or create what has been termed 'artificial scarcity', for instance, journal rankings that make publications in 'top journals' a scarce factor (Bucchi 2015). The global rankings and the WCU discourse, as noted in this chapter, can also be interpreted as means to create reputational or status scarcity: only a few can be 'world-class' and because of the limited positions available on global ranking lists, only very few can claim to 'win' according to this measure.

The second particular feature of status competition is that status is judged by others (as opposed to the resource owners), making the audience a central actor in processes of status competition. Convincing others of your status is thus a central feature of such competitions. In this way, uncertainty is a key characteristic of status competitions: actors have little control over their own status, and having received high status once is no guarantee for keeping it. This does not mean to underestimate the "stickiness" of reputation (Schultz et al. 2001): that a high status in itself increases the likelihood of continued high status. But you cannot store status in the same manner as you can resources; you need to continuously partake in status competitions. This makes such competition an ongoing matter, and efforts to organize such competition and set the rules become more important than for other forms of competition. As was noted above, global rankings are important for setting the rules of competition for status among universities: they establish who competes, with whom, and for what. However, because status is always judged in relation to that of others, the status created through rankings creates even further uncertainty: even if you improve your own scores in the rankings, others have to diminish their scores – or improve less – in order for your status to increase. In this sense, there is no final 'winner' in status games, and competition becomes endless.

Conclusion

The central claim in this chapter is that the current development of the idea of a global market for universities is underpinned by the notion of competition. Competition rhetoric has been shown to permeate both local and global policy debates, and a number of mechanisms are put in place to make competition and competitive dynamics become 'real', such as global ranking lists and competitive funding mechanisms. Three features of competition are evident from these developments. First, it is clear that the rhetoric and the practices of competition clearly frame universities as the primary unit involved in competition: it is the university that should be reorganized, managed, and changed to become competitive. Universities, in turn, conform in trying to envision such competition, and to play by its rules. The rules, on the other hand, are increasingly set on a global scale, and competition itself is considered global in character and form, making up the second feature of competition: its global rationalization. Third, through the rules set, the currency of competition has become research and research activities of universities; through research excellence, the general quest for status and recognition on the global university market can (potentially) be reached. The global competition for universities is thus largely a competition for status rather than for resources.

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Chapter 12
The Future of Universities

Lars Engwall

Introduction

From the chapters included in the Volume we can conclude that universities, combining education and research, represent a very successful organizational form, as argued in Chap. 1. Universities have proliferated, with new ones having been added, but the early universities have also shown resilience over time. In 1980, the Carnegie Council Policy Studies in Higher Education (1980, p. 9, note 2) thus stated:

> Universities in the past have been remarkable for their historic continuity, and we may expect this same characteristic in the future. They have experienced wars, revolutions, depressions, and industrial transformations, and have come out less changed than almost any other segment of their societies.

However, we should note, as pointed out by Jürgen Mittelstrass in Chap. 2 that the character of universities has changed over time. As demonstrated in the chapters that followed, they have gradually developed from the early medieval universities a millennium ago (Chap. 3 by Wim Blockmans), through the period of Humanism and Renaissance (Chap. 4 by Hilde De Ridder-Symoens) towards research-oriented universities in Europe (Chap. 5 by Johan Östling) and the United States (Chap. 6 by Roger L. Geiger). These accounts are important to remind us about the origins of the present-day universities, and although these are larger in both scale and scope, their predecessors have been important for shaping their present features.

The question is of course whether universities are facing a radically different environment in the twenty-first century, which would mean that the conclusion of the Carnegie Council Policy Studies in Higher Education would hold less true in the future. A report from Ernst and Young (2012), for instance, concluded: "Over the next 10–15 years, the current public university model in Australia will prove

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unviable in all but a few cases." In relation to this statement, Chaps. 7, 8, 9, 10, and 11 have provided evidence of the following challenges for universities:

- the idea of a Mode 2 Society (Chap. 7 by Peter Scott),
- the pressures for accountability (Chap. 8 by Stefan Collini),
- the pressure for increasing social embeddedness (Chap. 9 by Francisco O. Ramirez),
- the managerialization of universities (Chap. 10 by Georg Krücken)
- the idea of a global market for universities (Chap. 11 by Linda Wedlin).

Looking more closely at these challenges and the future of universities, it is appropriate to return to the governance model presented in Chap. 1, summarized in Fig. 1.1. It points to three significant governors of all types of organizations, universities included: Regulators, Market Actors and Scrutinizers, signalling through rules, benchmarks and norms, respectively, and using punishments, market verdicts and naming and shaming in response to non-compliance. This chapter will look into possible developments with respect to the three types of governors and the consequences for Institutions, that is, future universities.

Regulators

As pointed out by Jürgen Mittelstrass in Chap. 2, a fundamental issue for universities is their autonomy. In terms of our model, this means the extent to which they are autonomous to decide for themselves about their teaching and research activities. In this respect, we have seen variations over time and space. As mentioned in Chap. 1, there has been a tendency in many countries to ease the detailed regulation of universities. However, at the same time Regulators have increased the scrutiny of universities through different kinds of evaluations and systems for resource allocation based on performance. The often-mentioned example is the United Kingdom with its destructive effects discussed in Chap. 8 by Stefan Collini. Nevertheless, we cannot rule out that this type of performance governance will continue and even that it will spread, to varying degrees, to countries, where it has not yet been fully implemented. Behind such an expectation is the general trend of managerialization in society, manifested by methods that are labelled New Public Management (Hood 1995). A contributing factor is the ambitions in all countries to have universities with leading positions in the global ranking tables, but also to make the right national budget priorities in view of other urgent needs, such as pensions and healthcare for an aging population, social welfare and after a period of disarmament, military spending.

However, there are other threats to the autonomy of universities as well. For quite some time, there has been a tendency by politicians to try to direct research into areas that are particularly expected to contribute to the wealth of their countries. This has been manifested in allocation of earmarked funding for these purposes,

something closely related to the Mode 2 society discussed by Peter Scott in Chap. 7. Although these efforts have not always been successful, they can be expected to continue as a result of the race among nations. However, even worse are more recent tendencies – demonstrated in countries like Hungary and Turkey – to intrude on the freedom of research and the freedom of speech.[1] It could also be added that in a number of countries – the United States included – the tenure system is being questioned and even abolished. A basic argument for those questioning this is the idea that academics should not have better job security than other employee groups, while the counterargument has always been that professors should be able to speak their minds without fear of being fired. The risks are great that the first argument will gradually become more widely accepted.

The tenure issue is associated with the leadership of universities. As pointed out in Chap. 1, university leadership in the early days used to be a position that circulated among faculty members, whereas it nowadays has become a profession in own right, with recruitments in a proper labour market. Behind this development, in countries with state universities, we can see Regulators moving forward their positions in the recruitment of university boards. An argument behind this has been the view that governments are the owners of universities. At the same time, ownership is normally associated with invested financial capital that can be lost, which is not the case for universities, where the intellectual capital (faculty competence) is the main asset. Nevertheless, there are reasons to believe that the efforts of Regulators to influence the governance of universities will persist in the future. This in turn makes an argument for non-US universities to strengthen faculty influence through academic senates as discussed in Chap. 1 (see again Engwall 2018).

In view of the strong expansion of the academic system in terms of institutions, we can also expect efforts to follow the corporate practice of merging institutions. This has already happened in Denmark, Finland, France, Norway, and to some extent in Sweden (Pinheiro et al. 2015). Behind these efforts are not just arguments of economies of scale but also to a great extent wishes to create larger institutions that are more competitive in the international ranking lists. Forces against the mergers are not only local patriotism but also the difficulties experienced after mergers in the corporate world (cf. e.g. Whistler 1969).

In conclusion, we can expect universities to continue to be significant Institutions in society. They have long been considered major powerhouses in the knowledge society in a global world of economic and political competition. However, in relation to Regulators we should expect universities to be under increasing scrutiny and facing efforts to govern them in politically desired directions, although not with detailed regulations. At the same time, there may be reasons to believe that the distinction between public and private will be increasingly blurred as public universities attract other means of support than the public purse and private universities get public monies. This is, for instance, the case for the top two universities in California, the public University of California, Berkeley and the private Stanford University.

[1] For Hungary, see for instance Academia Europaea (2019).

The direct public funding for the former institution nowadays is marginal (round 10%) in relation to other funding, while the latter tops off its private funding with public grants (Engwall 2018). For both – but particularly for Stanford – a significant role is played by an advanced culture of philanthropy in the United States. Obviously, such a culture is not equally developed in all countries.

Market Actors

Market Actors are all those actors that compete with a specific university, those demanding its services and those providing goods and services. In terms of the competitors, we have seen above how the global population of universities has increased over time. As a result, the competition for students, faculty members, financial resources, and, not the least, reputation has intensified. At the same time, the increase in the number of institutions has been beneficial for the labour market of PhDs graduating from the already-established institutions. In this situation, the latter appear to have an advantage of age in relation to both competitors and the other market actors, something which Williamson (1975) labelled first-mover advantages. For universities, this is especially true for reputation, which, as discussed in Chap. 1, is particularly important for institutions like universities that face high uncertainty in terms of the outcomes of their services. Thus, in terms of education, old universities have had more time to build up a reputation and to become more embedded in society through their longer dissemination of alumni, of which a number of successful ones will signal the benefits of their Alma Mater through their careers. Similarly, old institutions have the advantage of age in terms of research by having been involved in undertaking and propagating research over a longer time, thereby having more extensive connections to the international scientific community (see further Engwall and Wedlin 2018).

The advantages of age will influence the decisions of prospective students and faculty members. However, in terms of research, universities are not only competing with other universities. They are also competing with various research institutes, where the researchers have the advantage that they only do research. Many of them may suffer from a liability of newness, that is, that they have a limited record of linkage to the scientific community. In addition, the downside of the concentration on research is the lack of student alumni in the society and their contribution to reputation. Nevertheless, a number of well-reputed research institutes compete with universities for talent, like the German Max-Planck Institutes, the French *Centre national de la recherche scientifique* (CNRS) and various research institutes in the United States such as Bell Labs, Scripps and SRI. We cannot rule out the possibility that such institutions will grow in number in the future, stimulated by the wish of Regulators as well as philanthropists to contribute to the solution of specific targeted research challenges. If so, there is a risk that universities will lose entire research groups that are recruited by competitive research institutes. At the same

time, there are also signs indicating that there is a growing number of research partnerships between corporations and universities.

As reputation is important for the competition for research talent, it is also crucial in the competition for students. Here having a lofty reputation is advantageous in attracting the very best students as well as the opportunity to charge substantial tuition fees, where such are applicable. However, despite all that is said about global markets (see Chap. 11 by Linda Wedlin), it can be discussed to what extent the reputation advantages work beyond national borders. So far, they appear to have been primarily national constructions (see further Engwall 2016). Although international job market mobility may increase in the future, there are reasons to believe that the national job markets will continue to dominate.

It is also worth noting that modern information technology provides important challenges for education delivery, the technology of which has tended to be rather stable despite a development in most institutions from a small scale with close contacts between students and faculty members to a system of mass education (University of Oxford being one of the exceptions). Faculty members have lectured and held seminars; students have read assignments and have been examined. However, in the modern world this model is beginning to be challenged through various online-education offerings, including Massive Online Open Courses (MOOCs). This latter technology for delivery of education may sound very rational, since it would mean that students do not need to go to a specific place but could get their lectures and assignment as well as examinations at home. Universities as well as commercial actors have also exploited it. So far, the success seems to be limited, however. One important reason is the economy of MOOCs: the production of these courses is very expensive, and the systems to obtain revenues are thus far underdeveloped. Other reasons are the very high dropout rates among students that enrol and the fact that physical universities and on-campus programmes have a considerable competitive advantage by offering strong brands for the labour market as well as important networking opportunities for young people who are starting their careers. The opportunities for online education therefore appear to be much better for continuing education, that is, when more mature persons want to acquire a special competence in addition to their basic education.[2] This could imply a profitable demand for Exclusive Paid Online Courses (EPOCs).[3] Continuing education can be expected to become a booming activity for universities in the future.

A basic prerequisite for the excellence of all institutions, universities included, is their access to financial resources. In market-oriented systems, Market Actors have to pay tuition fees, while in state-oriented educational systems, Regulators often provide a substantial part of such resources. In view of the possible future budget

[2] At the same time, it should be added, that open universities exist in many countries with large numbers of students. An early institution of this sort was the British Open University founded in 1969. Followers are among others the Indira Gandhi National Open University founded in 1985 in India, the Virtual University of Pakistan founded in 2002 and the Open University of China founded in 2012.

[3] For elaborations on MOOCs, see De Corte et al. (2016).

constraints mentioned above, tuition fees may also spread more widely. An indication is the change in Sweden in 2011 to start charging fees from international students from countries outside the EU/EES-region and Switzerland.[4] Fears have therefore been expressed that this is just a precursor of general fees.

In terms of research resources, Regulators have in many countries, as mentioned, moved towards performance-based resource allocation of basic research resources. There has also been a tendency to favour project funding instead of block grants. This in turn has rendered various research-funding bodies, such as research councils and private foundations, extremely important for universities' research priorities. For the future Regulators may of course change their preference for project funding, but their influence is more limited in regard to private foundations. The foundations are a fact of life, and they do constitute significant financing bodies, although their power over resource allocation has been questioned from a democratic point of view (Tompkins-Stange 2016, 2017). Nevertheless, philanthropy can be expected to constitute an increasingly important source of revenue for universities, particularly in the leading country of the university population, the United States. Here, private foundations have for quite some time been significant for universities with the Carnegie Corporation, the Ford Foundation and the Rockefeller Foundation as long-time examples and George Soros Foundation as well as Bill and Melinda Gates Foundation as more recent benefactors (Krige and Rausch 2012; Tompkins-Stange 2016). However, such foundations – for instance, the British Wellcome Trust, the German Volkswagen Foundation and the Swedish Knut and Alice Wallenberg Foundation – have also played an important role in other countries (Anheier and Toepler 1999). In view of the long-term development of stock markets and the creation of new billionaires in booming industries, the funding for universities from such actors can be expected to increase. However, already today top US universities have very large endowments. For instance, the top two universities in the ARWU ranking, Harvard University and Stanford University, could in 2018 report endowments of USD 39 billion and USD 25 billion, respectively (Harvard Management Company, Inc. 2018; Stanford Management Company 2019).

Large endowments are often associated with names of schools, buildings and chairs. The extent to which this raises ethical problems in relation to freedom of research can no doubt be an issue. This is less so with endowments from the wider population of alumni. Here again, the advantage of age plays a role: older institutions have more alumni who want to promote their Alma Mater. Obviously, Regulators play a significant role in relation to endowments through rules regarding tax reductions.

An emerging issue in relation to the financing of research is the rules for publication, as a number of European public research funding bodies have decided to require Open Access publishing for research they have funded (Plan 2019). The rationale is that research funded by public resources should be available to everyone. There is also an intention to break the power of publishing houses that gain

[4] Students from the EU/EES region and Switzerland have to be treated in the same way as domestic students, that is, with no fees charged (*Forskning och statistik om integration och migration i Sverige* 2019).

considerable profits from their publications. However, these publications are also the most prestigious ones through their earlier performance in terms of quality and therefore remain the most desired outlets of researchers. In this way, there will be an asymmetry between those researchers that are funded by sources requiring Open Access and those that do not. This can be seen as another expression of intrusion on the freedom of research, this time from Market Actors.

In conclusion, we can thus expect universities to be under strong competition with each other. They will also be competing with other actors like research institutes as well as other educational institutions, among the latter those taking advantage of modern information technology. A key factor in this competition is reputation, which is particularly important for universities due to the uncertainty of assessing quality of services in advance. Therefore, old institutions appear to have advantages of age in building up reputation, which in turn has positive effects on the recruitment of students and faculty members as well as on resource acquisition. In terms of the latter, there are reasons to believe that universities will be pushed to find new ways of funding.

More generally, there is a risk that the demand for the services of universities (and thereby their economic resources) may be reduced by a general distrust in academia in a world where scientific results are questioned and where 'fake news' has become an often-used term. Related to this are the risks that the expectations on the deliveries of universities are not met, i.e. that students do not get the jobs they expected and that the university research is not delivering the expected innovations. In this situation, there may be opportunities for other actors to outcompete universities, taking a more commercial route than the traditional universities. It cannot even be ruled out that billionaires will try to acquire whole universities – or at least parts of them such as business schools – as they have already done with top soccer teams such as Paris Saint-German, now owned by Quatar Sports Investments, and Milan, owned by the US investment management firm Elliot Management Corporation. Such a change is not likely to strengthen the profession and the academic values within universities.

Scrutinizers

Among Scrutinizers, the academic profession itself constitutes the most important governor. The scrutiny of peers is the fundamental quality control of academic life. Research results, whether they have been published or not, are continuously examined and questioned, which is a fundamental mechanism for trust creation in academia. However, even experts can fail. In quality assessments they can – in the same way as in statistical testing – make two types of error: Type I, that is, rejecting an important paper that ought be published, and Type II, that is, accepting a weak or false paper that ought be rejected. Examples of the first type of error are papers submitted by scholars who later on have been awarded Nobel Prizes for their path-breaking research (for instance 1953 Laureate Hans Krebs and 1977 Laureate

Rosalyn S. Yalow). Although this type of error can be embarrassing in hindsight, it is not at all as serious for the public's trust in the research community as the second type, which manifold cases have demonstrated (see further Broad and Wade 1982; Engwall 2014).

Unfortunately, there are reasons to believe that the number of errors will increase in the future for two reasons. First, editorial offices are flooded with manuscripts from members of the fast-expanding research community, which places high demands on their screening capacity. Second, the willingness of the members of the research community to undertake careful reviews is hampered by the fact that, in an increasingly competitive system, they are rewarded for their publications but not very much for their reviews (see Engwall 2016, pp. 99–103 for empirical evidence). These tendencies are likely to increase in importance the more performance management of universities is implemented. On top of that, professional scrutiny faces new challenges as predatory journals are launched in large numbers and research results are circulated on the Internet without or with poor editorial control.

The scrutiny of the profession may also be discouraged by solidarity within tight professional networks. Misconduct may nevertheless come under scrutiny through whistle-blowers. For these, the media as Scrutinizers are particularly important as a recent case at the prestigious Karolinska Institutet in Sweden (Rank 44 in ARWU and since 1901 the awarder of the Nobel Prize in Physiology or Medicine) demonstrates. This institution hired the thoracic surgeon Paolo Macchiarini, whose surgeries were eventually considered unethical and who was accused of research misconduct. However, it was not until a TV journalist produced a series of three programs on the case that a scandal burst out with negative consequences for the university leadership and the journals (including the prestigious *The Lancet* with a 2018 impact factor of 53.254) that had published papers by Macchiarini and his collaborators (see further Lindquist 2018).[5] This case clearly shows the importance of the media even in a field where professional scrutiny is a key feature.

For quite some time the media have also, as pointed out in Chap. 11 by Linda Wedlin, come to play a very significant role through different kinds of rankings (see also Espeland and Sauder 2016). This has particularly been the case for business-school rankings, which date back to the 1970s in the United States (Daniel 1998, pp. 213–217 and Wedlin 2006, pp. 5–7). However, it was not until the 1980s with the lists published by the *US News & World Report* that rankings took off. Starting the rankings of US colleges in 1983, this magazine has published such lists annually since 1987 (Morse 2008). In terms of business schools, they were followed by *Business Week* in 1988, and the *Wall Street Journal* in 2001. This in turn created reactions from the European outlets the *Financial Times* and *The Economist*, which started international ranking lists in 1999 and 2002, respectively (Wedlin 2006, pp. 5-7).

[5] For information about *The Lancet* and the articles, two of which have been retracted, see *The Lancet* (2019).

In the present century, media rankings have spread considerably among countries focusing on whole universities as well as different kinds of education. Apparently, they have also stimulated the creation of the Chinese ARWU ranking (Nian and Ying 2005). As also pointed by Linda Wedlin in Chap. 11, this, along with other international rankings lists, has created an image of global competition, and has had effects on the behaviour of academic institutions all over the world.

There are strong reasons to believe that the media rankings will continue to constitute a form of scrutiny of universities. First of all, they are very attractive material for readers and therefore considered valuable for commercial reasons. Second, this is part of a general trend in society of measuring and comparing performance in the same way as league tables are significant ingredients in sports sections of media outlets.

While rankings sort institutions in descending order, another type of scrutiny, accreditation, aims at determining through evaluation by an external body or agency if universities meet specific standards. Such scrutiny is particularly important in countries where Regulators have low control over the entry and performance of institutions, that is, countries where market principles are dominant. Accreditation organizations are therefore particularly common in the United States, where there is even a meta-organization for accrediting organizations, the US Council for Higher Education Accreditation, created in 1996 (CEA Annual Report 2008–2009, 2009 p. 23).

As in the case of rankings, business schools constitute a particularly interesting case for accreditation. For them, the European organization European Foundation for Management Development (EFMD) created in 1997 the accreditation system EFMD Quality Improvement System (EQUIS), which over time has attracted a considerable number of business schools all over the world. However, as the number of accredited institutions has increased, some of them have found that they have had to add more to their brand. Since there are two other accreditation systems for business schools developed by the Association of MBAs (AMBA) and the Association to Advance Collegiate Schools of Business (AACSB), there are presently four groups of business schools: the non-accredited and those accredited by one, two or three of the organizations mentioned. Those in the last group are referred to as having triple-crown accreditation. There are reasons to believe that these accreditation efforts have reinforced the formulation of mission statements and other formal documents required by accrediting organizations. In terms of significance for the institutions accredited, the accreditations appear to be highest in relation to the recruitment of international students and student exchange.[6] Again, the idea of a global market for students can be expected to stimulate the demand for accreditation.

The expansion of accrediting organizations should be seen in relation to deregulation. Thus, the more Regulators step back within a nation, without setting up their own quality assurance organizations, the more opportunities there will be for

[6] For a study of the development of European accreditation of management education, see Hedmo (2004) and for a more general analysis of quality assessments through soft regulation, see Wedlin and Hedmo (2015).

accrediting organizations to enter and develop their offers. There are also reasons to believe that accreditation will be more attractive to young institutions that have not yet been able to build up a reputation. The more such institutions establish themselves, the better the opportunities for accrediting organizations. As the latter multiply, we can also expect increasing accreditation of accrediting organizations.

We should also expect other non-governmental organizations to have an influence on universities in relation to ethical issues. One such issue for researchers in the life sciences has long been the treatment and use of animals in experiments. Other issues concern research regarding controversial topics and questionable collaborations with corporate interests. The protests that these organizations express can be expected to spread rapidly by means of modern information technology.

In conclusion, it should be evident that the activities of universities are under considerable scrutiny in addition to that from their auditors. First, it is important to stress the role of the profession, that is, the academic community. However, we should also keep in mind that their scrutiny is not perfect, and that present working conditions of faculty members may make them less apt to fulfil the scrutinizing role. Second, it is therefore valuable that there are other scrutinizers on top of the professions: the media and non-government organizations. As we will see in the following section, together with Regulators and Market Actors, these three types of Scrutinizers will have a significant impact on the Institutions.

Institutions

One very obvious effect on Institutions of Regulators, Market Actors and Scrutinizers is the growth in the administrative superstructure of universities as demonstrated by Francisco O. Ramirez in Chap. 9 and Georg Krücken in Chap. 10. Ramirez shows how ambitions of entrepreneurship, empowerment and university professionalization in US universities have led to the creation of development offices, diversity offices, and legal offices, respectively. In the same vein, earlier studies (for instance, Engwall 2008) have shown how media offices are growing in universities, along with other PR and external relations functions and offices (Engwall and Wedlin 2018). All this is consistent with the reasoning in Chap. 1 in relation to Fig. 1.4 regarding the formation of boundary-spanning units. The development of such units are also reported in Chap. 10 by Georg Krücken, who points to an ongoing transformation among European universities towards organizational actors with limited reliance on the academic community, hierarchical decision-making and expanding organizational structures. However, his empirical studies also show that German professors still have considerable influence. This is a reminder of the variations between university systems in different countries.

However, as also pointed out in Chap. 1, in addition to boundary-spanning units, Institutions use various intermediaries such as consultants to handle Regulators, Market Actors and Scrutinizers. This also demonstrated by Georg Krücken in Chap. 10. For the same purpose, they also engage in interest organizations such as the

European University Association (EUA) and the Association of American Colleges & Universities (AACU) as well as university alliances, such as the League of European Research Universities (LERU), and the Coimbra group.

The development of the boundary-spanning units in the university top administrative structure is likely to hamper the influence of the academic profession further. Thus, the more representatives of other professions are hired, such as those developed in the fields of communication, human relations, economic control and jurisprudence, the more faculty members may encounter difficulty in defending academic values, particularly those of collegiality. Here even university leaders may lose influence, since they come and go, while the administrative superstructure remains.

The growth of the superstructure of universities is facilitated by the fact that there are weak restraints on the taxing of departments for overhead costs. Although faculty members may complain about this, most modern economic control systems relentlessly deduct overhead charges from grants of all sorts. Private foundations may decline to pay above certain percentage levels, but at the end of the day departments have to find other resources to pay what the system charges. And, both teaching and research will suffer.

The above is one feature contributing to economic problems of universities. However, more important are the costs for teaching and research. For these, universities face the same problems as organizations in the performing arts, where rationalization opportunities are limited (Baumol and Bowen 1966). This is particularly the case in research, but also to a certain extent in teaching, although it is possible in the latter to exploit economies of scale with lectures for large audiences. On top of that, economic problems increase by the hiring of more competent faculty and by the promotion of existing faculty members, who, because of their academic performance, require higher salaries. Institutions with high reputations that charge tuition fees can handle this by raising fees, but even for them there are constraints, as recent discussions of skyrocketing tuition fees in the United States and the United Kingdom show.[7] In systems where tuition fees cannot be charged and all institutions thereby receive the same payment for their teaching, increases in faculty competence may present a considerable economic problem.

The situation described above implies that we can expect universities to increase their efforts to attract additional funding. Fund-raising will therefore be more and more significant for university leaders, particularly in environments where favourable conditions for this are present such as in the United States. In the words of the then provost (now President) of the University of Washington, Ana Mari Cauce: "My President says that his task is to raise the money, and mine to spend it" (Engwall 2018, p. 6). Obviously, fund raising activities are likely to yield additional costs in

[7] See e.g. "Tuition fees: MPs debate petition urging cut to £3000" (BBC 2019). For an analysis of the political economy of higher education, see Garritzmann (2016), where four worlds of students finance are identified: (1) low-tuition-low-subsidy regime (Continental Europe), (2) low-tuition-high-subsidy regime (Nordic Europe), (3) high-tuition-high-subsidy regime (Anglo-Saxon countries), and (4) high-tuition-low-subsidy regime (Asia and Latin America).

terms of overhead and contribute to further building of central administrative structures.

However, it is not only financial resources that universities may have difficulty attracting. Another significant problem, in view of the increasing demands from Regulators, Market Actors and Scrutinizers, is the recruitment of a new generation of faculty members. The increasing job insecurity, scrutiny and constraints on academic freedom may discourage young people from entering academia at a lower pay rate than they would be offered by modern knowledge-intensive companies with much better working conditions.

Finally, there are reasons to believe that one effect of the above will be an increasing differentiation among institutions of higher education and research, even if all of them tend to call themselves universities. Nybom (2018), for instance, expects that the future will bring a division into five kinds of institutions, which can be sorted into two groups: one with restricted volume aimed at elite training, the other with unrestricted volume directed towards mass education. One cluster of the first group is *research universities*, training academic elites and pursuing basic research. A second cluster is *elite colleges*, training academic and social elites focusing on pedagogical excellence, and a third one is *professional schools*, training professional elites and pursuing applied research. In contrast to these three clusters of this first group, those belonging to the second group have fewer or no restrictions on student numbers. Here Nybom mentions *multiversities* aimed at mass higher education and semi-professional training as well as *for-profit providers* characterized by optimal profit generation and market adaptability.

Of the five categories mentioned, Nybom expects multiversities to constitute the largest part of the total population, because of their significant role in raising general educational levels in their countries. This appears particularly true in view of the results reported by Shavit et al. (2007) from a comparative study of the stratification of higher education. They concluded that, despite the societal effects of elite institutions, all social classes benefit from the expansion of higher education. This is a very important conclusion for the future, particularly in light of the discussions regarding the role of the gap between well-educated and less well-educated groups in recent political processes.[8]

Concluding Remarks

The basic question for the future is whether the challenges discussed above will fundamentally change universities or perhaps even threaten their survival. The observation of the above-cited Carnegie report may appear reassuring, that is, that universities so far have been very resistant and adaptable. Although this is not a

[8] See for instance Zhang (2018), for an analysis of the effects of educational levels for the outcome of the Brexit referendum.

guarantee for the future, as argued above, universities do seem to have particular features of resilience, not least through advantages of age. In addition, we have seen that universities, like other organizations, tend to handle the pressures from Regulators, Market Actors and Scrutinizers by setting up special units for each purpose. The embeddedness and these organizational responses stand out as reasons for optimism that universities will have a future, although they are very likely to be different from those we have seen since the advent of the first universities and those we see today.

In terms of their major missions, we should expect universities to continue to focus on their two traditional fundamental tasks: the distribution of established knowledge (teaching students as well as the dissemination to the wider society) and the creation of new knowledge (research). However, within these missions, there may be considerable struggles regarding priorities, the outcome of which are dependent to the interplay between Institutions, Regulators, Market Actors and Scrutinizers that has been discussed in Chap. 1 and the present chapter.

There are also reasons to believe that universities will continue to formulate mission statements, although these do not necessarily will present realistic views of the future. They will play a role internally in the creation of organizational culture as well as externally in branding processes that have become so important in modern society. Such mission statements may even help universities to continue to be resilient so that we even in the future will be able to quote without hesitation the following words of the former Harvard Dean and Acting President, Henry Rosovsky (1990, p. 267): "The [undergraduate] students are here for four years; the [tenured] faculty is here for life; and the institution is here forever."

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