# Chapter 5
# Bewitched, Bothered and Bewildered: 'A Small Heroic Everyday Epic' of Teacher Education in a Digital Age

**Avril Loveless**

> 'There are thirty two ways to write a story, and I've used every one, but there is only one plot – things are not as they seem.'
>
> Jim Thompson

## This Is a Story of Teacher Education

It is one person's story told in three parts.

It contains three storylines needing different focal lengths: – a micro story of my being an educator; a meso story of educational technologies in schools; and a macro story of education in a digital age of neoliberal intent.

The plot, however, is not always as it seems. This is not a story of smooth transitions between roles, but one of 'way-finding' in shifting landscapes of purpose, expertise and policy in teacher education.

It is an original story, analysing an account of teacher education that draws together theoretical threads of the conceptual depth of teacher knowledge; the contextual scope of culture and power in a digital age; and the pedagogic reach of didactic analysis rooted in the human condition (Loveless 2012). The method of storytelling is autoethnographic, choosing moments of a life history to offer an analysis of a story of action in a theory of context making sense of our time from a personal story in a wider picture (Hayler 2011; Stenhouse 1975). The story matters to our understanding of that wider picture because at a time of international debate and reform in education, it presents a way of thinking about teacher

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'Bewitched, Bothered and Bewildered' by Lorenz Hart and Richard Rogers in 1940 musical 'Pal Joey'. Copyright 1941 Chappell & Co Ltd. New York and London.
'A Small Heroic Everyday Epic' by Tempest, K. (2013). *Brand new ancients*, London: Picador.
Polito, R. (1997). *Savage art*, *a biography of Jim Thompson*, London: Serpents' Tail.

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knowledge in a digital age that is slightly awkward. It suggests features that are 'refracted' through transition and transformation. As Goodson and Rudd describe, 'trajectories, life-histories and professional identities influence […] practice, mediate policies and negate the effects of ideology and power' (Goodson and Rudd 2012 p6),

The story links this refraction with the concepts of scripted and improvised self-formation (Holland et al. 1998) to offer personal reflections on the depth, scope and reach of my finding my way as a teacher educator of 30 years: a story of becoming more knowledgeable in my field, more accomplished in my pedagogy, and somewhat wiser in the context of teacher education in my time and place. It is presented as a chronology of being an educator bewitched, bothered and bewildered by using digital technologies in my practice as a schoolteacher, teacher educator and professor over three decades. Blended into these changing identities are the transitions in two areas of my personal experience. The first is in the politics and cultures of educational technologies in the UK. The second is in how theories of learning and pedagogy can illuminate understandings of teacher knowledge and teacher education practice.

Through these personal and contextual transitions, however, are enduring threads of creativity, integrity and friendship in the encounters with the people and activities in the mainstream and the margins of education. These encounters often contained the 'small heroics, everyday epics' (Tempest 2013), in which connections are made between people, their contexts and their imaginations to shape new worlds, however small the scale.

One of the roles of the academy is to analyse the everyday epics and place them in the narratives of society, politics and culture. It is our responsibility to do this so that individual stories are not trapped in time and place, but connected with wider contexts in ways that give them agency in complex worlds. The stories of our lives as teacher educators are played out against backdrops of ideologies about the kinds of society we would wish to build and inhabit. We seem to be currently in a market society, yet we can answer back and go against the grain to these wider narratives in our local lives and relationships, and offer to our students more complex ways of reading the world.

## Bewitched – Tools of the Trades

'I prithee, let me bring thee where crabs grow.
And I with my long nails will dig thee pignuts,
Show thee a jay's nest, and instruct thee how
To snare the nimble marmoset. I'll bring thee
To clustering filberts, and sometimes I'll get thee
Young scamels from the rock. Wilt thou go with me?
*Caliban*, *Tempest*, *Act II*, *Scene II*.

**Hackney, London. September 1980**

After my first teaching post in the leafy English shires, I moved to Hackney. I was new to the city and new to Northwold School – a large, Victorian three-storey building with high ceilings, large windows, walled playground, and 'Infant Girls' carved in stone over the entrance to the brown-tiled staircase. My concerns at the time were focused on organising my new classroom, getting to know new children and colleagues, and figuring out new relationships and friendships at the weekends. I had no vocabulary for describing and explaining why I did what I did, nor why my classroom was thought to be a lively, interesting place in which I was considered to be a successful and engaging teacher. It worked, but I didn't know why.

Hackney is an inner-city borough, known for its long history as a place of early industrialisation and highwaymen, refuge and immigration, diverse ethnic and religious cultures, radical politics and uneasy to violent relationships with the authorities. By 1980, it was characterised by some of the worst measures of multiple deprivation in England, whilst nestling next to the wealth of the City of London. Until I lived and worked in this place I had little interest in politics, and arrived as Thatcherism began to knock the stuffing out of many of the assumptions that I held about the lives of teachers and the purposes of education. My own teacher education had focused on the debates about 'progressive' and 'traditional' teaching styles (Bennett 1976), but now I was becoming more aware of the political roots of these debates (Whitty 1989). It seemed as if the world was changing on my doorstep. The English Miners' Strike of 1984; the financial 'Big Bang' and deregulation of the City; uprisings in the inner cities; and the UK Education Reform Act of 1988 which brought in a National Curriculum and assessment regime, were some of the themes in the shift to the Marketization of Everything which was being played out around me.

Being an English child of the 1950s, I benefitted from the post-war consensus of the British 'Spirit of '45', the establishment of the Welfare State and the commitment to battle 'Want, Disease, Ignorance, Squalor and Idleness' (Beveridge 1942). Growing up in a background of northern, working-class Christianity, I was rooted in non-conformist, missionary and social justice traditions. My view of the purposes of education was focused on realising one's potential to appreciate the world around and make a positive contribution to human flourishing. I thought that I might be a Primary teacher in order to be a jack of all trades and master of none. I was interested in all subjects, and although they had been taught as distinct domains in my secondary school curriculum, I enjoyed the approach to topic work in primary schools that attempted to make interdisciplinary links between connected ways of knowing. I often wonder whether the expectations of a 1960s Girls' Grammar School education with a broad curriculum of arts, sciences and humanities were the

keystone in a later interest in conceptual depth as well as disciplinary connections. My Geography teacher, Mrs Wallace, once asked ‘Why is this place like this?’, and I felt that my head might catch fire thinking about all that I found fascinating in such an interdisciplinary subject. My becoming a teacher in the late 1970s was considered in my family and community to be a suitable vocation for a first-generation university graduate in Psychology.

## *Tools for Teachers*

The arrival of microcomputers in London primary schools in 1983 highlighted both the purposes of education as I understood them at that time, yet also foreshadowed the politics that I would come to understand later in my professional life. The rationales for introducing computers into schools reflected different interests and goals, from promoting the British computer industry to linking education with modernisation and economic growth (Selwyn 2013). My own reasons were parochial and pedagogical.

The key to our fascination was that we could make these computers DO things, from clumsy word-processing to programming robots. We could solve problems, make other problems, play and fiddle, look for patterns, make connections between ideas and concepts in a range of subjects from maths to history, and find ways of representing them in text and image. We were bewitched by activity and play in our classrooms. In the 1970s, Kemmis, Atkins and Wright described 4 ‘paradigms’ for the ways in which we could design and use computer applications in education: instructional, emancipatory, revelatory, and conjectural, and we understood how the software at the time might be used for such active learning (Kemmis et al. 1977). The technologies have developed rapidly, but the focus on active learning that builds knowledge and makes conceptual connections was evident in the early 1980s.

Such activities were supported, described and disseminated by the many national and regional advisory centres working in schools at the time (Somekh 2000). My active interest was recognised by School Inspectors, and I was invited to be seconded as an advisory teacher with the Inner London Educational Computing Centre (ILECC), focusing on professional development for teachers using the new micros. We were the ‘early adopters’, sharing an uncritical enthusiasm for learning with these tools, and inspired by the leadership at the time which was committed to work for the improvement of the educational experiences of the children in London. We worked hard in the team, believing that we were contributing to innovations in education which would be catalysts for ‘transformation’ in teaching and learning. However, a study of these early schemes highlighted that they were focused on introductions to software and hardware, rather than being explicit about the deeper concepts underpinning the applications for learning and teaching (Cox et al. 1988). These findings were uncomfortable, but rang true. We needed a more substantial understanding of what we thought we were doing, and a more informed and critical approach to our role as advisors and teacher educators.

## *Tools for Teacher Educators*

In the late 1980s many of us who had been advisory teachers linked to Teachers' Centres for professional development moved into the University sector for teacher education. The Education Reform Act of 1988 incorporated Information Technology (IT) into the new National Curriculum (NC) and the universities supported the changes in initial teacher education through new or reconfigured lecturers' posts. We novice teacher educators joined communities of researchers who had been developing conceptual frameworks for the design of IT resources and pedagogy. This brought about changes in my own context, practice and community which were equally bewitching. Moving from London to the South Coast and the chalky, salty air of Brighton, challenged me in a number of ways. I missed the metropolis, my friends, and the day-to-day encounters within a teaching and advisory role. I thought that if we in Hackney had access to half of the resources of physical, social, cultural and economic capital in Brighton, what wonders and experiences we might have opened up for our children. Yet I soon had to pay close attention to the demands of preparing university student teachers to work in a wide variety of settings. They were learning to be teachers in tiny villages, in city centres and in suburban estates. This was a region which encompassed City commuters and landed gentry; the technology, talent and tolerance of the music scene and creative industry start-ups; the rural poverty alongside celebrity bling; and the kiss-me-quick bravado of seaside resorts where the gap between rich and poor was wider than the national average, and those serving in a fashionable hotel bars worked for over an hour to earn the price of a gin and tonic. I had to think again about 'Why is this place like this?' as the context for developing my contribution to teacher education.

The technologies themselves were changing, and the new NC for IT focused not on content, but process and capability (National Curriculum Council 1990; Loveless 1995) Multimedia and Hypertext were developing, enabling us to start to tell stories combining text, images, sounds and links in imaginative ways. Graphics and painting packages allowed us to mimic and manipulate visual images. We worked in classrooms with student teachers and practising artists to try out these digital tools and media, collaborating with regional and national Arts Councils. The digital tools provoked interesting questions about creativity and so we still felt at the leading edge of something new (Loveless and Taylor 2000).

A powerful influence and support for my thinking and practice was the national professional community, the Association for Information Technology in Teacher Education (ITTE). Established in the mid-1980s, it was a community of teacher educators in HE who were figuring out how to develop the profile of IT through lobbying policy makers, supporting each other in course design and resources, and developing theory. Among the many active members of ITTE for example, Somekh called us to pay attention to the sociological imagination and the theoretical frameworks that we use in our research (Somekh 2004), and Fisher placed educational ICT and teachers' work into wider critical perspectives and social theories (Fisher 2008).

As a classroom teacher I had begun to understand the building of knowledge through active engagement and problem solving. As a teacher educator, I needed to develop the theoretical toolkit to help me to describe and explain what we thought

we were encountering with these new technologies. Just as Mrs Wallace's question had sparked my recognition of 'ways of knowing' in and between disciplines, my encounters with the work of researchers at this time introduced me to ways of thinking about sociocultural, relational and communicative approaches to using digital technologies as tools in learning and teaching (Scrimshaw 1993; Wegerif and Scrimshaw 1997). I became interested in how our thought and activity are carried out as 'Person-Plus' in partnership with others and culturally provided tools in context (Perkins 1993; Salomon and Perkins 2005). Context, curriculum, professional community and theoretical tools helped me to embody two aspects of my identity as a teacher educator – developing teacher knowledge and pedagogy with digital tools.

## Bothered – Appropriations, Transformations and Constructions

No, that's not what I meant, That's not it at all…..T.S. Eliot[1]

**Westminster, London. November 1999**

As the Chair of ITTE (1999–2001), I represented the Association in regular termly meetings with officials in the Teacher Training Agency (TTA), Department of Education and Employment (DfEE), and Office of Standards in Education (Ofsted), alongside connections with members of BECTA and Futurelab. They too took time to attend our conferences and research seminars, or be represented at our committee meetings. Their responsibility was to advise on and implement policy initiatives for the British Government that could be 'scaled up' for all schools and colleges. Ours was to inform on how these might work on the ground; warn that 'what works' might not always work in different situations; and advise on the role and needs of teacher education at that time.

We were invited to Westminster, to meet the Parliamentary Under-Secretary of State for Learning and Technology, to voice both our support for and concerns about recent New Labour policies for ICT in teacher education. The meeting embodied some of the contradictions between a prospective view of promoting the use of technologies in learning, and a retrospective view of knowledge demonstrated in mandatory ICT tests for the award of Qualified Teacher Status. The conversation was 'quick-firing' and lasted about fifteen minutes before we were bundled out of the way of the next appointment. The Minister seemed amiable, yet unmoved by our arguments that we already had more substantial ways to assess our student teachers' ICT capability than context-free tests. I left the meeting having gained some insight into the tangled skeins of lobbying.

[1] Eliot, T. S. (1915). *Prufrock and other observations*, London: The Egoist Ltd.

There were considerable satisfactions working in a developing field with a community such as ITTE and a growing international network of colleagues with a burgeoning programme of conferences and seminars. We were active, stimulated, and enthusiastically engaged with practice, policy and research. We were, however, also bothered. As teacher educators in HE, our role demanded that we placed practice in wider contexts of the field of education, society and culture, and offered critiques of the claims and representations of the use of educational technologies. The enthusiasms of the early adopters in the 1980s were not necessarily bearing the kinds of fruits anticipated for the arrival of the twenty-first century.

I was aware that not only were our early intentions in using digital tools not being realised, but the consensus about the underlying purposes of education and the uses of technology in schooling was changing. I recognised how our enthusiasms had played a part in the very developments that were now concerning us. Yet as teacher educators, we were also well-placed to present a more critical, nuanced view. We were represented in a number of relationships with policy bodies in government departments, quangos and professional associations which also provided funding for evaluations, innovations and research at the turn of the twentieth/twenty-first century. There was a political will to promote '21st century skills', yet space to develop a deeper understanding and critique. In our courses we devised modules with titles such as 'Contexts and Cultures' and 'Learning in a Digital Age', supporting students to understand the complexities of the settings in which they were learning to teach, and the wider digital cultures of children and young people (Loveless and Ellis 2001; Loveless and Dore 2002; Loveless and Williamson 2013; Buckingham 2007; boyd 2014). These not only addressed the enablers and barriers in their practice with digital technologies, but also challenged them to think about their reasons for adopting such tools in their classrooms and how they might play a role in their becoming ready, willing and able to teach (Shulman and Shulman 2004). We tried to address why we were bothered by the appropriation of education technology for markets; the unfounded claims of transformations in learning and teaching; and the contradictions in constructions of teacher knowledge.

## *Appropriations*

The pedagogical approaches to the use of digital tools were appropriated in the wider context of globalisation and marketization. In the UK, the 'Superhighways' initiative was launched by a Conservative government in 1995 tasked with keeping Britain competitive in the twenty-first century. The New Labour government published 'Connecting the Learning Society', aimed at the 'challenges' of educational and economic priorities for learners, education providers and industry (Department for Education and Employment 1997). Tony Blair, the Prime Minister of the day declared that it was time to make Britain a world leader in digital learning services. Each year in London, there is a very large trade show called BETT, where the producers of educational technologies, hardware and software, parade their wares and the latest innovations in the field to teachers and international education ministers. Fairground barkers and snake oil sellers call out to attract us to the solutions to our problems and deficiencies as teachers, parents and policy makers tasked to develop '21st century skills' (Buckingham et al. 2001).

Researchers bore witness to these changes to the political economy of education technology in the international arena. Selwyn drew attention to turn-of-the-century ideologies of the 'education-industrial complex' and how 'following the money' can map out the connections and networks between industry and government (Selwyn 2014a, b). Rudd described the 'eye-watering figures' of the funding streams for educational technology in schools, as decision makers in education spent a greater percentage of their revenue on ICT than other industries (Rudd 2013). Egea also argued that narratives such 'learner-centred education' were appropriated by neo-liberal discourse to reconceptualise four dimensions of education: the relations between schools and society, where the task of schools is to train pupils for a 'knowledge society'; the purpose of education, where education is elided with learning as a content-free process without consideration of the social and cultural questions of what is being learned and why; the subject of education, where the learner is an individual characterised more by qualities such dynamism, flexibility, autonomy, control, agency, adaptability, creativity and productivity, than a member of a collective bodies and social contexts with longer term powers and obligations to a wider community; and the ontology and organisation of school, where there is a paradox in a call for flexible, autonomous and non-hierarchical 'learning organisations' which mirror private-sector high tech companies, whilst centralising public accountability and performativity (Egea 2014).

## *Transformations*

The victory narrative of the transformation of education through technology sounded somewhat hollow. The layout of classrooms, the interactions between teachers and learners, and the time and space of teaching and learning remained much the same on an international scale. The reporting of pupils' remarks in a study of primary children's use of ICT in school and home was both telling and somewhat dispiriting:

> Whilst at first glance our data depict a generation of young people for whom ICT was part of their everyday lives, closer inspection shows many primary pupils' actual engagement with ICT to be often perfunctory and unspectacular - especially within the school setting (Cranmer et al. 2008 p36)

Justifications for the investment in educational technologies were sought in attempts to make connections between pupils' attainment and their use of the technologies (Watson et al. 1993; Harrison et al. 2001; Somekh et al. 2007; Cox et al. 2003, 2004). The evidence indicated that the picture is complex, and that the relationships between access to ICT and performance are not straightforward. They related more to context, culture and pedagogy, than to a causal link between access to computers and higher scores in national tests. Fisher drew attention not only to the use of the word 'transformation' in policy which was not yet reflected in practice, but also to the ways in which digital tools could be used for intensification in efficiency and productivity of teachers' work, making the boundaries of their work more flexible, but also more disrupted in the immediacy of response required to pupils, parents and management, and the potential for surveillance (Fisher 2006).

Teachers reported perceptions of digital tools which were distinct but not always coherently linked: to prepare for the world of work and office skills; to be taught as

a subject in its own right as a preparation for later computer studies; or to be used as a tool for learning and teaching here and now (Loveless 2003a). There were certainly pockets of innovation and imaginative practice with digital tools, and many projects to explore the influence and impact of the use of digital technologies in classrooms, but widespread transformation did not happen. Interactive whiteboards for classroom teaching, and e-portfolios for presentation of evidence of achievement, were not quite what was predicted in the early 1980s. Much of the practice seemed to be of technologies being co-opted to present more of what had been going on before, or needing intensive professional development to support innovative, interactive pedagogy (Higgins et al. 2007; Kennewell et al. 2008; Warwick et al. 2011). The many examples of case studies of 'what works' didn't seem to be working on a wider scale, and student teachers' own ICT capability was influenced as much by the communities of practice in the school settings in which they found themselves as by any general preparation (Benzie 2000; Wenger 1998).

## *Constructions of Teacher Knowledge*

As we moved across the Millenium, learners were characterised by language and metaphors of construction, interaction, connection, networking, adaptability, flexibility, and data-production (Loveless and Williamson 2013). The focus on the learning processes of individuals was considered to be problematic by some who initiated debates about knowledge, disciplines and collective purposes of education (Young 2008). There were also contradictions in the models of teacher knowledge presented in policy for teacher education curricula. In England, Teacher Education Standards offered details of the competences in each curriculum subject which needed to be demonstrated in their thousands (Department for Education and Employment 1998). These did not reflect models of teacher knowledge as integrated, situated, active, and reasoned, particularly in the uses of technology (Putnam and Borko 2000; Banks et al. 1999; Mishra and Koehler 2006; Webb 2002).

Ellis argued that subject knowledge was interactive and emergent, existing 'as much *among* participants in a field as it does *within* them' (Ellis 2007:458), yet teacher subject knowledge was portrayed as a commodity that could be measured, audited and 'topped up' by individuals on training courses, rather than developed within the dynamics, debates and experience of a disciplinary community. The model of teacher education sometimes seemed to be one of copying templates and 'retooling' teachers for change on a production line responding to new directives, rather than considering the more complex factors, interactions and pedagogical decisions that teachers were making in their classrooms (Watson 2001; Fisher et al. 2006).

Our role as teacher educators spanned our experience in practice; our understanding of policy making; and our awareness of theoretical tools for critical engagement with the bothersome contradictions in social, cultural and political contexts. These fuelled the next transition for me to full professorship, a recognition of my making contribution to a 'field' and building capacity for the next generation of teacher-researchers in teacher education. This phase has been bewildering.

## Bewildered … Creativity, Integration and Friendship

> The way of his words and the way of his way were the same: strong and good and warm[2]

**Fusebox, Brighton, May 2014**

'Fusebox' is both a physical space and a model of interdisciplinary collaboration and networking for learning and support for innovators and start-ups in Brighton. It emerged as an outcome from 'Brighton Fuse', a collaborative, 2-year research and development project supported by the Arts and Humanities Research Council which mapped, measured and assisted Brighton's creative, digital and IT (CDIT) cluster of industries. It supported mutually beneficial connections between higher education, those engaged in the creation of arts and culture and Brighton's digital technology sector. It identified distinctive characteristics of Brighton as a place for talent, technology and tolerance, particularly the potential for 'fused' and 'super-fused' interdisciplinary ways of working between creative art and design skills and technology. Yet it urged that 'integrating disciplines is not easy. In many ways, fused and superfused companies have become successful against the odds. Our educational systems favour specialisation, separating arts and science students as if they were volatile chemicals. Many businesses are still structured around isolated disciplines and cultures. Often, people even socialise with others in the same specialism. It is also worth noting that businesses which buck the trend find themselves outside existing Standard Industry Classification Codes' (Sapsed et al. 2014 p2)

It was this challenge to education systems that brought together a group of practitioners in the creative and digital industries with university, college and school educators to discuss the implications of such fusion for our own practices. I sat in the room listening to the stories of focus, drive and openness to solving interdisciplinary problems and the challenges of starting up businesses in such demanding and fast-moving fields. Many practitioners lamented that the education system was not providing young people with the skills and attitudes they needed. They did not seem to be aware of the contradictions between their accounts of learning together in context, drawing upon the depth of disciplinary expertise when needed, and their traditional model of schooling providing 'off the shelf' recruits. However, some did recognise that the 'brightest and best' in their business were not necessarily always the highest achievers in the school system. They declared their strong commitment to apprenticeship and collaboration, and I was both impressed and curious to know more about these 'fusion pedagogies'. Yet again, I asked 'Why is this place like this?', thinking of the purposes of teacher education in our times and adding 'How would we wish this place to be?'

[2] Charles Bukowski's Introduction to 'Ask the Dust' by John Fante *Page ix.*

A dictionary definition of 'bewildered' is of being in pathless places. Although this can make one feel disoriented and anxious, it also calls us to be way-finders, aware of the landscape and mindful of our general sense of direction. In the later periods of my professional life in teacher education I recognise how my view of the landscape has been shaped by three significant pedagogical encounters with creativity, integration and friendship. The first is a recurring connection with creative practitioners who were educators in their own communities. The second is the discovery of questions and theoretical principles to guide and integrate our pedagogic design. The third is an enduring research collaboration and friendship with a network of colleagues and doctoral students.

## *Creativity and Creative Practitioners*

Although I have been a dutiful contributor to formal education in schools and universities, I have always had an attraction to and engagement with creative endeavours in the margins. Activities such as taking the children in my Hackney class to the Tate to see Kandinsky ("I think I can do that, miss") and Rothko ("he must have been a bit depressed, miss"), to working with practising artists in classrooms using digital media with students to make visual, sound and dynamic images, were all traces of an earlier undergraduate interest in the perception and psychology of art (Gibson 1972; Ehrenzweig 1973). As a university student in the early 1970s I heard both contemporary jazz and music of the Italian Renaissance for the first time, and fell for both. These were new experiences of my head catching fire – things were not as I first thought they seemed. New horizons and new worlds of past and present were opened up.

The revival of interest in creativity in English education at the turn of the twenty-first century brought together creative practitioners, industries, educators, policy-makers and researchers, encompassing a range of conflicting and incompatible rhetorics (Banaji 2011). Creativity itself has been appropriated as a twenty-first century skill for 'homo creativus' and 'cool capitalism', in which economic advantage is secured by enhancing human capital for greater productivity through innovation, enterprise and entrepreneurship (Loveless and Williamson 2013). Yet the creative people with whom I was living and working in the margins of mainstream education had found ways to both 'go with' and 'go against' the grain of the times. They had a commitment to fashioning the quality of the work itself; a view of why it mattered not only intrinsically but also in the face of cultural, social and economic imperatives which more often than not valued what could be measured or sold; and a pedagogic capability in sharing with others as audiences and as learners in the practice. It was this 'pedagogic reach' that drew me over the years. As creative role models and mentors they offered alternative pedagogies to learners for developing and improving their capabilities through critical review and encouragement (Hall et al. 2007). Their pedagogic reach, the connection with and scaffolding of learners, was

rooted in their conceptual depth of knowing their subject and their contextual scope of knowing why it mattered in the wider human landscape (Loveless 2003b, 2012).

Digital tools also offered ways to make the familiar strange in creative activity. We played with the concept of remix before we'd ever heard of the word, and used digital tools to develop ideas and make things happen (Loveless 1997; Loveless and Taylor 2000). Digital tools could play a role in creative approaches to supporting imaginative conjecture, exploration and representation of ideas. We challenged, informed and nurtured ideas by making connections with information, people, projects and resources. We made meanings through fashioning processes of capture, manipulation and transformation of media. We worked with others in immediate and dynamic ways to collaborate on outcomes and construct shared knowledge, and published and communicated outcomes for evaluation and critique from a range of audiences. Creativity with digital tools could be seen in the interaction between qualities in people and communities, creative processes, subject domains and social contexts (Loveless et al. 2006).

## *Integration*

The words and the way in teacher education were brought together for me in encountering the European traditions of Didaktik in colleagues' work (Hudson and Meyer 2011). The posing of questions such as 'What shall we teach, how shall we teach and why are we teaching this?' brings together culture, purpose and practice in teachers' knowledgeable action. I was inspired by Klafki's open approach to didactic analysis through questions which encapsulated how our preparing to teach any topic – from fractions to fractals – should be profoundly connected to meaning and value for human beings with a cultural past and an anticipated future (Klafki 2000). Student teachers do not just learn to produce meticulous lesson plans for competent delivery and assured pupil attainment for school league tables. They learn to be prepared to teach, open to contingency and improvisation in diverse contexts and complex worlds (Loveless 2011).

Integrity in the use of digital tools for learning and teaching is also related to the underlying pedagogical purposes when, as Hillock describes, teachers take pains to design for learning (Hillocks 1999). In a study of teachers' knowledge in using technology, we asked primary and secondary teachers to describe both the surface features of activities with tools such as word processers, spreadsheets, search engines and social media, as well as the often tacit learning purposes which underpinned their planning. These deeper learning intentions demonstrated 'clusters' of categories of distributed thinking, engagement, community and communication, and knowledge-building (Fisher et al. 2012). Our earlier pedagogical visions of the 1980s had not disappeared, but were still present in teachers' practices albeit tacit, implicit and somewhat muted.

## *Friendship*

The third enduring thread through this story of a teacher educator is friendship: in professional communities; in collaborative work; and in the friendships that grow between colleagues and students. These friendships have been apparent as we work together in the contexts of education in a digital age over three decades, bearing witness and leaving traces through our teaching, publication and professional participation. The acts of friendship have transformed ways of knowing in practice.

ITTE itself was a remarkable community and network in my professional life for over twenty years. It was countercultural: staying focused and small when other professional organisations were merging; supportive: sharing opportunities for critical friendship through annual conferences, research seminars, regional meetings, journal, and newsletters; and aligned in purpose and trajectory: enacting an effective community of practice. Through such active participation I joined a smaller group of collaborators. Meeting to craft funding proposals, engage in fieldwork, and write reports and articles was always a pleasure, involving conviviality and much laughter. Indeed, over the years our informal motto became 'If it's not fun, we're not doing it'. Together we devised prototypes of interactive tools to support metacognition (Denning et al. 2003); reviewed literature on teachers' learning technology (Fisher et al. 2006); researched how teachers used early location-aware devices to create imaginative 'mediascapes' with their pupils (Loveless et al. 2008), explored teachers' knowledge of learning purposes with digital tools (Fisher et al. 2012); and analysed an overview of the field of education technologies in teacher education through international journals over 20 years (Denning et al. 2011).

We gradually realised how collective and seamless our approach and analysis had become when we could no longer identify where one person's thinking and suggestions merged into the next. Having each been early adopters of education technology, we were bewitched, bothered and bewildered together, through changes in teacher education curriculum, inspection regimes and university/school partnerships. Our respect, affection and care for each other went beyond the professional, particularly when anxiety or illness beset us or our families at different times. As we move towards retirement from our professional roles, our work will be done. Our friendship stands and the work of trying to do the right thing for the right reasons together will abide with us.

Closer to home, colleagues in Brighton have been keeping critical, watchful eyes on the international implications of neoliberalism, narrative and culture in education (Stephens 2015; Goodson 2014), particularly in teacher education (Ellis and McNicholl 2015) and the politics of educational technology (Rudd 2013). They offer new perspectives on my own thinking about educators' depth, scope and reach in our times. However, the growth of intellectual friendship between teacher and doctoral student is probably one of the most gratifying aspects of being a teacher educator. Three of my colleagues who are also former students are now engaged in work that speaks to the relationships between macro, meso and micro levels of my own story. Mark Price, exploring the narratives of becoming youth workers in a time

of transition in political focus and 'austerity' in public services identified the power of narrative capital to affirm integrity, fuel self-belief, and future-proof new possibilities (Price 2014). Keith Turvey constructed a model of narrative ecologies to describe and explain teacher knowledge in action with digital technologies (Turvey 2013) and is now proposing innovative approaches to teacher professional development which focuses, not on 're-tooling', but recognising intersecting 'problem-spaces' in which teachers' questions are the starting point for research and development (Turvey and Pachler 2015). Mike Hayler, in the meantime, after finding a path for autoethnography in teacher education, is editing this collection. He had no idea – yet – how gratifying it is to be invited to contribute to your own student's achievements, embodying the cycle of being a teacher educator.

## Wayfinding

The Brighton Municipal Day Training College for teachers was opened in 1909 and there have been many transformations and transitions in teacher education in the city since. My story is only one of many thousands of staff and students whose lives have intersected in the endeavour of learning to be a teacher. On reflection, my quest has been for understanding how pedagogy is accomplished through conceptual depth in the formation of the interdisciplinary field of ICT in education; contextual scope of the interplay of powers and the emergence of cultures in a digital age; and the pedagogic reach of teacher knowledge grounded in critical awareness of purpose and value in action and community. My 'story of action in theories of context' can be seen as negotiations of agency and improvisation within more scripted social positions and constraints. Holland and colleagues approached such negotiations in their framework addressing identity, agency and culture, giving room for transformations and transitions in figured worlds, positional identities, authoring selves and making worlds (Holland et al. 1998).

'Figured worlds' are contexts which are imagined and populated by communities of people who share webs of meaning in which the interpretations of human actions are negotiated and shaped through activities, performances, rituals and artefacts. The communities in my upbringing and schooling shaped my understandings of the purposes of education and disciplinary domains, whilst the national and international professional and academic networks formed a strong, supportive basis for my identity as a teacher educator in the field. 'Positional identities' relate to activities that constitute understandings of degrees of power, status, hierarchy, rank, distance, privilege and affiliation. The ways in which we take up social positions can cut across our figured worlds, being expressed and understood in our speech, dress, movements and manners of relating to others. My position has waxed, waned and been eschewed at different times of my professional life. The time and place of my class background, academic achievements and community participation have sometimes fuelled my confidence in advocacy of the purposes and potential of education; whilst I have been aware of the social and political capital that I don't, and wouldn't wish to possess in negotiating with new bodies of power in education policy and institutions.

Our identity in the 'space of authoring' acknowledges how we 'answer back' to the world, drawing upon our resources from our position in a social field and orchestrating them in order to respond in time and space. Our responses might be scripted or automatic in the situation, yet might also be unexpected, challenging and risk going against the grain of the social and cultural context. The pedagogical potential of digital tools offered different ways of approaching teaching, and ITTE and my friendship groups throughout my professional life have always demonstrated counter-cultural characteristics which endured through numerous reforms and transitions. My present research interests lie with educators who have made decisions to work in the margins of the mainstream and engage with power in alternative ways. 'Making worlds' is therefore the way in which we imagine and construct new figured worlds of new communities and new social capabilities requiring resourcefulness and improvisation. International teacher education undergoes frequent transitions as politicians seek to make education systems in their own image within the wider forces of globalisation. Teacher educators have been, paradoxically, both compliant and resistant. We have answered back and made new worlds, 'refracting' reform through the narrative capital of our own life histories and values in teaching, research and partnerships (Goodson and Rudd 2012).

The themes, transitions and transformations that have emerged are now tightly woven together in being bewitched, bothered and bewildered simultaneously as I develop depth, scope and reach in my identity as a teacher educator. My advice to new colleagues in the profession would be to be mindful that our small heroics and everyday epics declare that things are not always what they seem, and in a time when international higher education appears to be governed by fear and vanity, we can be open to contingency, critique, creativity and conviviality. We can respond to Rebecca Solnit's exortation 'to make yourself one small republic of the unconquered spirit' (Solnit 2005 p15).

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