Final chapter from

TRANSFORMING TEACHER EDUCATION: RECONFIGURING THE ACADEMIC WORK

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Chapter 7

PUBLIC UNIVERSITIES AND THE PROFESSION OF TEACHING:

TOWARDS AN AGENDA FOR TRANSFORMATION

In this book, we have been examining the work of preparing school teachers from a cultural-historical perspective and with a particular focus on the labour of HEI-based teacher educators. We have focused on the English context in some detail but have also drawn on international comparisons and analysis. In discussing our own researches, we have situated them within this international arena and have argued that what we found in England is consonant with situations in other countries around the world. While we may have used Marxian concepts such as proletarianisation in our own studies, other researchers in the US, Canada and Australia have used feminist or labour theories to show how the work of teacher educators in HEI settings falls disproportionately on groups (often women without doctorates) who struggle to achieve recognition and advancement within the value systems and exchange relations of higher education.

We have argued that England presents an interesting case of what can happen to teacher education (as a set of practices within a higher education discipline as well as professionally) when it becomes subject to the reform agendas of a residual, ‘statist’ state that also has commitments to markets, financialisation and the techniques of New Public Management. We have also suggested that the underlying questions and issues are not unique to England. They can be identified internationally in countries where some globally ‘travelling ideas’ (Seddon et al 2013) about educational reform have touched down. Equally, other possibilities and
other systemic arrangements can be identified – in countries such as Finland, for example, countries that are often the focus of policy tourism rather than serious analysis. In short, as we argued in Chapter 6, if we want to get the discipline of Education right, we need to get teacher education right. And, as we argued in Chapter 2, if we want to ensure the best possible preparation for new teachers and also ensure their retention and their continued professional development, HEIs have an important contribution to make and we need to get that right too.

The relationship between higher education and the professions more broadly merits further consideration. Most HEIs have long histories of professional education of one form or another as well as providing a pool of graduates for further preparation. Internationally, HEIs also have a gate-keeping role in many professions and sometimes quasi-regulatory functions (in England, for example, by officially recommending Qualified Teacher Status – effectively the license to teach – and judging cases of professional suitability). So any agenda for transforming teacher education as academic work must also consider the nature of teaching as a profession and how higher education relates to professionals and professional organisations as well as their clients and the wider society. While granting absolute autonomy to higher education and professional groups at any costs and in all circumstances is undemocratic, simply using higher education to open and close the gates of professions on terms prescribed by the state is equally undemocratic, as we shall argue. Of course transforming teacher education as field of higher education cannot be for the good of teacher educators alone. Using higher education as a delivery mechanism for political agendas driven by electoral cycles is, however, also an unsustainable position.
In this chapter, we develop our agenda for the transformation of teacher education, for reconfiguring the academic work in order to prepare teachers better. It is an agenda that grows out of the English context but seeks to address some wider structural problems and to learn from analyses of international experience. We take a different approach to Furlong (2013) while sharing much of his analysis. In his elaboration of a new future for Education as a discipline (Furlong 2013, 183 – 199), Furlong separates out professional education, knowledge mobilisation and research. Instead, we argue that these activities must be integrated: the discipline of Education should re-focus on core educational questions and interests, help to re-invigorate the professional work of teaching as a collaborative community and, in order to achieve these goals, review how the higher education discipline faces the profession and the wider publics. To suggest some ways in which this integration of activities might be enabled for wider systemic benefit, we focus on knowledge and knowledge creation. We do so not because we believe that it is research per se that will solve the problems we have identified but because different conditions for producing and accessing professional knowledge are needed, different to those in the current situation. We seek conditions that are likely to be more conducive to the development of the profession and the discipline. To begin our discussion of the possibilities for transformation, we turn first to higher education and the role of ‘public universities’.

PUBLIC UNIVERSITIES – DEMOCRATISING INSTITUTIONS WITH RELATIVE AUTONOMY

A democratic constitution, not supported by democratic institutions in detail, but confined to the central government, not only is not political freedom, but often creates a spirit precisely the reverse, carrying down to the lowest grade in society
the desire and ambition of political domination. (John Stuart Mill 1871; cited in Gutmann 1999, 283 - 284)

Amy Gutmann (1999) has argued that public institutions such as schools and universities are essential to the effective functioning of open, participatory and democratic societies and in doing so she follows in a strong philosophical tradition (e.g. Tocqueville 1848, Dewey 1927, Popper 1945). The key contribution these institutions make to this functioning is the creation of conditions and the provision of public space for deliberative discourse. Schools and universities provide (or at least might provide) preparation for participation in deliberative processes and universities have responsibilities to contribute to this deliberation at an advanced level in the public sphere through their commitment to the creation of new knowledge through research and the mobilisation of that knowledge for the greater good of society. As Gutmann argues, the extent to which a society may be described as democratic is ‘the extent [to which] citizens and their accountable representatives offer one another morally defensible reasons for mutually binding laws in an ongoing process of mutual justification’ (Gutmann 1999, xii). As Furlong (2014) has put it, it is this ‘commitment to the “contestability of knowledge” that marks universities out as unique in society’ (p. 8). The consequences of the failure of public institutions noted by John Stuart Mill in the quotation above are that top-down control by the state creates in populations the expectations of being continually guided by that state to the detriment of their human agency and creativity.

As Furlong also points out, HEIs are complex institutions, a ‘conglomeration of earlier concepts and organisational forms (2013, 168). Nonetheless, historically, it is possible to identify the ‘public university’ as a type of HEI that has evolved both to widen participation
in post-secondary education at the same time that new kinds of publics have, at least in part, been created through their responsibilities for public deliberation. These public functions of HEIs have included what Dewey (1927) referred to as the development of a ‘collective intelligence’ in society but also the creation of the open social structures that permit the deliberative public discourse and (inevitably partial) flows of knowledge necessary for our democratic existence. Public universities contribute both the new knowledge and the public space and channels of communication for the mobilisation of that knowledge so as to enable new developments and allow new ideas to take hold. They do so in sometimes unpredictable and fragile ways – ways that Karl Popper (1945) described as ‘piecemeal social engineering’ – but without being subject to an over-determining and controlling ideology, no matter how utopian (or even totalitarian) in intent. Public universities can therefore be institutions of democratic education in the fullest sense and the majority of HEIs in English-speaking countries were long regarded as such - at least in ideal-type terms – for example, the four-year colleges and research-intensive state universities in the US and the civic and modern universities of England. Indeed, as Holmwood (2011) points out, until fairly recently, the ideal of the democratic and democratising university as a public institution was explicit in higher education policy in England: the Robbins Report of 1963 saw universities as ‘serving democratic citizenship by improving debate and the capacities of citizens’ (Holmwood 2011, p. 7) and the Dearing Report of 1997 (commissioned by the Conservative Education Secretary Gillian Shephard) argued that the benefits of higher education went beyond the individual’s accumulation of social and cultural capital but that HEIs were necessary in order to:

- sustain a culture which demands disciplined thinking, encourages curiosity,
- challenges existing ideas and generates new ones; [and to] be part of the conscience of a democratic society, founded on respect for the rights of the
individual and the responsibilities of the individual to society as a whole

(Dearing Report 1997; para. 5; cited in Holmwood, p. 9)

At the core of the sustenance of this culture is the academic freedom of those who work in universities and colleges and the relative autonomy of HEIs from political control. We say ‘relative autonomy’ as arguments for absolute autonomy within a participatory democracy are difficult to justify, especially when the creation of new knowledge and the critique of existing intellectual traditions are at stake. As Gutmann suggests, though, good arguments for relative autonomy can be made, especially for professional schools in HEIs (the example she gives is law): if professional schools are intended to produce competent professional practitioners but also critical scholars of the professional practice then ‘one might conclude that the standard of relative autonomy justifies state licensure but not control of the content of legal education’ (p. 174). In order to prepare critical scholars of the professional practice, the principle of academic freedom for the HEI professional school educators is essential. Such freedom allows them to ‘assess existing theories, established institutions, and widely held beliefs, according to the canons of truth adopted by their academic disciplines … provided that they remain within the bounds of scholarly standards of inquiry’ (p. 175). Gutmann stresses the constraints within which this freedom operates: ‘the bounds of scholarly standards of inquiry’ set a higher threshold for academic freedom than general freedoms for citizens. Academic freedom is conditional on maintaining these standards within the mutual bonds of an academic community; it is not the right of an academic to do as she or he pleases. Academic expertise is exercised within a framework of scholarly as well as public responsibilities.
The challenge to this view of the public university and of necessary academic freedom – of higher education having a democratic and democratising function per se - has significantly grown in strength in recent years. Wendy Brown (2011) characterised the change as a shift from understanding higher education as ‘a social and public good to […] personal investment in individual futures, futures construed mainly in terms of earning capacity’ (p. 23). From this perspective, HEIs have become disengaged from society, have had their roles as public institutions eroded by the state and replaced by the right of government always to represent public interests everywhere. In this analysis, the student becomes a consumer whose choices are guided by market rationality and the university becomes a brand that jostles for position in global rankings such as the Shanghai Jia Tong. There need be no relation to society in the way we have been describing here. This decline of the public functions of the university coincides with the decline of other democratising institutions. According to Brown:

Neoliberal rationality recognises and interpellates the subject only as a speck of human capital, making incoherent the idea of an engaged citizen, an educated public or an education for public life. (p. 23)

Critiques of these challenges to the ideal of the public university have been very strong in the humanities in recent years, as Furlong (2013) notes. Many scholars (e.g. Collini 2011, Holmwood 2012, Lye & Vernon 2011) have been active in their reassertion of the democratising function of the public university against the forces of neoliberalism. In some respects, they are part of a long tradition of advocates of the liberal arts and, like their predecessors, they argue that the current crisis is not simply a result of recession and budget deficit – not an inevitable ‘product of necessity’, as Lye and Vernon put it (2011, p. 5) – but as a contemporary manifestation of historical contingencies that can be changed. Perhaps less
discussed is the role of academics themselves in bringing about the current situation as they have competed for grants and titles, counted citations and fellowships and generally strived to create the spectacle of the star researcher within the exchange relations of academic capitalism. We should remember that some have thrived within the current system while others have struggled to survive. Nonetheless, change is possible and the work of sociologist Michael Burawoy offers us one, we think, important and relevant example of a future orientation.

**Four types of knowledge and the public university**

In his proposal for reimagining the public university, Burawoy (2011) places a knowledge problem at its centre. Public universities, says Burawoy, have been dealing with dual governmental pressures: the commodity of knowledge and the regulation of knowledge production: ‘If commodification raises the question of knowledge for whom, regulation raises the question of knowledge for what?’ (p. 31). In reframing the problem, as Ellis (2013) describes, Burawoy delineates two broad categories of knowledge – instrumental and reflexive – under which four types of knowledge are included: professional knowledge and knowledge for policy purposes (the ‘instrumental’ category); and critical knowledge and public knowledge (the ‘reflexive’ category). Burawoy contends that the public university must attend to all four types of knowledge even while the balance between the four may vary. Instrumental types of knowledge are those that allow certain kinds of work to get done; reflexive types of knowledge require dialogue about values and purposes underlying the necessary instrumentalities and also about the wider aims for society. Burawoy claims that it is reflexive types of knowledge that are at greater risk given current emphases on the instrumental but also accepts the importance of instrumental types of knowledge. He also
specifies two dimensions of participation as ‘audience’ in his typology under the heading of autonomy and heteronomy. Autonomy signals the academic channels channels of communication that are essential to sustain scholarly productivity and the creation of new knowledge; heteronomy signals the essential relationships with the policy sphere as an aspect of a liberal democracy as well as relationships with the wider publics and responsibilities to citizens in society as a whole. The relative autonomy of public universities to create and contest knowledge is granted in relation to certain responsibilities towards democratic politics and society in general.

Ellis (2013) has adapted Burawoy’s typology with specific reference to teacher education and it is reproduced in adapted form in Table 1 below.
<table>
<thead>
<tr>
<th></th>
<th><strong>AUTONOMY</strong></th>
<th><strong>HETEROLOGY</strong></th>
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<tr>
<td></td>
<td>Academic audience</td>
<td>Extra-academic audience</td>
</tr>
<tr>
<td>Instrumental knowledge</td>
<td><strong>PROFESSIONAL</strong> Knowledge arising out of research designed to develop educational practice such as teaching</td>
<td><strong>POLICY</strong> Knowledge associated with the application of research designed to improve educational practice in achieving political goals and democratically accountable aims for society</td>
</tr>
<tr>
<td>Reflexive knowledge</td>
<td><strong>CRITICAL</strong> Knowledge arising out of the critical evaluation of research and traditions of research that seek to develop educational practice; knowledge that situates this research in wider intellectual and historical contexts</td>
<td><strong>PUBLIC</strong> Knowledge carried through deliberative discourse about the development of educational practice in the public sphere, knowledge that stimulates the wider give-and-take of reasoned justification in society</td>
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*Table 1: knowledge in and for teacher education in the public university (after Burawoy); (adapted from Ellis 2013, p. 210)*
The relationships between these types of knowledge are complex and not easily managed. For these reasons (and others) Burawoy’s typology does not lead to ‘scaleable’ policy ‘solutions’ on a ‘management by objectives’ model that have been so popular in countries such as England. So, for example, just as the creation of professional knowledge cannot be ‘short-circuited’ in the service of policy, critical knowledge must be communicated with the wider publics otherwise there are risks both to the development of public knowledge, society’s understanding in general and the development of the critical knowledge that is the ‘collective conscience’ of the university (pp. 32 – 33). Burawoy asserts that:

… the public university gives weight to each of the four types of knowledge, requires them to be in dialogue with each other and recognises their interdependence even as they are in an antagonistic relation. Each knowledge depends on the other three. (p. 33; our emphasis)

The uneasy, integrative balance Burawoy is proposing is not permanent but must be continually re-made. As Ellis (2013) points out, to use Burawoy’s definition, the professional knowledge of teacher education arises out of a range of activities that might take place in a school setting. It is instrumental in its orientation towards the improvement of education - but is nonetheless deliberative, systematic and subject to social (professional, scholarly) processes of justification. If this form of professional knowledge does not seek to have a relationship with policy, it will, as Burawoy puts it, ‘wither away’. Equally, if teacher education does not seek to inform policy then it removes itself from society. If the realm of policy tries to co-opt professional knowledge for its own political ends, though, or if policy seeks to buy professional knowledge through narrowing research priorities, then both professional and policy knowledge are devalued. These instrumental types of knowledge also
require the reflexivity provided by critical examination both within the academic community and outside of it. Instrumental forms of knowledge associated with the development of an educational practice such as teaching must be situated within the historical, intellectual contexts in which such activities have evolved as well as in deliberations over the direction of society and its moral and ethical interests. The balance is one of sustaining relative autonomy in order to achieve wider benefits beyond the academy – into schools, the profession and the wider society.

Ken Zeichner (e.g. Zeichner et al 2012) has been explicitly arguing for a similar shift in the practices of teacher education in the United States. Recognising the actual and potential distinctive strengths of university coursework in pre-service programmes – the development of adaptive expertise among student teachers developed in their engagement with research-based knowledge – he nonetheless makes a broader argument for reconfiguring the practices of teacher education:

… the preparation of teachers for democratic societies should be based on an epistemology that is itself democratic and includes a respect for and interaction among practitioner, academic and community-based knowledge.

(p. 5)

So, like Burawoy, for Zeichner this reconfiguration is also, in part, a knowledge problem where the professional knowledge of HEI-based teacher educators has traditionally been conceptualised in ‘non-egalitarian’ ways with school teacher (delivering ‘findings’ to ‘end-users’, for example) but it is also a problem of the relationship between higher education and society. In arguing for a more
democratic teacher education, Zeichner and colleagues used the concept of ‘hybrid spaces’ - designed social environments that bring actors from different fields of practice together to work on a potentially shared object (Engeström et al 1999). Within such spaces, they argued, new knowledge and practices might emerge from the dialogic sharing of expertise by various partners (professional, policy and community, for example). Distributed knowledge of the different types we have been discussing in this section can inform the development of teacher education as a higher education activity and as a professional activity.

Strengthening these public functions of HEIs as a whole and, within that, attempting to negotiate the difficult balance between professional, policy, critical and public knowledge in teacher education are also likely to have benefits for the profession of teaching. It is to professions and professional work that we turn next, again emphasising the requirement for relative autonomy (on a collective rather than an individual basis) and the need to reject the extremes of what Gutmann (after Walzer 1981) calls the ‘insolence of office’ and the ‘ossification of office’ (p. 77 – 78).

PROFESSIONS – DISTRIBUTED AGENCY AND COLLECTIVE CREATIVITY

Division of labour, complementarity of expertise, and collaboration between different professional groups – and the development towards multiprofessionality – are essential parts of distributed agency. (Miettinen 2013, 131)
Reijo Miettinen’s (2013) analysis of institutional change and learning in the Finnish comprehensive school system identifies distributed agency and boundary-expanding collaborations as drivers of innovation and success. Distributed agency as a concept is particularly useful to Miettinen as it allows him to explain at a macro-level how the twin approach to economic innovation and the development of human capabilities in Finland has been achieved. Finland has prospered, according to Miettinen, because of its ‘enabling’ welfare state, a state without controlling ‘statist’ aspirations, that has recognised the economic context of human activities without resorting to economist or human capital ‘solutions’.

Agency – the capacity and the freedom for human beings to act with responsibility – has been widely distributed within Finnish society, along with trust in agents that has in turn led to confidence in their capacity to innovate. He quotes the headteacher of a Finnish school to illustrate what distributed agency has meant for the Finnish teaching profession:

“A great deal of confidence is placed in teachers [in Finland]. A great deal of power, responsibility and freedom is given to them, and they deserve it. No ponderous control mechanisms are needed. In many countries inspections and constant testing form a barrier to creativity and misdirect the teachers’ energy.” (Miettinen 2013, 133)

Rather than presenting an argument for the re-installation of older forms of individual (and, one might argue, undemocratic) professional autonomy, Miettinen draws on an evolutionary theory of innovation and creativity to argue for the relative autonomy of professional groups such as teachers. Centralised control (albeit from an elected political class) enacted through standards ‘inhibits the emergence of variation, which constitutes a constitutive foundation for development’ (p. 139). Strong national policy-levers lead fields in ‘predetermined directions’;
they do not stimulate the ‘emergence of new associations, experiments, sets of tools, and complementary expertise within the field’ (ibid.). In terms of teachers and teaching, such mechanisms lead to the ‘ossification of office’ (Gutmann 1999) – the withering away of agency, the capacity to take responsibility, confidence and the growing reliance on guidance or specification from the centre. ‘Ponderous mechanisms of control’ produce, in the end, what John Stuart Mill called the desire and ambition of political domination from within professions and societies as a whole. The lesson from Finland’s success, argues Miettinen, as well as lessons from successful cultures of innovation elsewhere, is that variations in perspective, knowledge and resources, subject to open deliberation within communities in which diverse and often difficult collaborations are encouraged, are much more likely to lead to real-world problems being addressed and innovative new ideas and ways of working being developed. In terms of schools and teaching, this involves distributing agency to the profession as a collaborative community (among many such communities).

In proposing ‘collaborative community’ as a theoretical model of contemporary professional work, sociologist Paul Adler rejected two earlier ideal types of professional community, *Gemeinschaft* (collective but rather like craft guilds) and *Gesellschaft* (an example being experts for hire). Adler believes that neither of these historical types of community is adequate for current and future conditions as they both have limited capacity to support the creation and mobilisation of new knowledge. So what he refers to as the ‘functional pressures’ of marketised forms of organisation and more bureaucratic, hierarchical forms ‘are encouraging the emergence of the collaborative form’ of community as a new phenomenon (Adler et al 2008, 364). A vital focus of these functional pressures is the capacity of professional groups to respond to problems of practice with new ideas and, in making his analysis, Adler is careful not to sentimentalise community as a form of collective
organisation, as can happen. Indeed, it is the knowledge-creating affordances and potential for innovation of the three different organising principles (market, hierarchy and community) of professional work that are absolutely fundamental to Adler et al’s general argument. Table 2, adapted from Ellis (2014), summarises the different strengths and weaknesses of these organising principles for professional knowledge creation (Adler et al 2008).
<table>
<thead>
<tr>
<th>Organising Principle</th>
<th>Strength</th>
<th>Weakness</th>
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<tbody>
<tr>
<td>Community (as traditionally</td>
<td>High levels of trust facilitate access to tacit knowledge held in shared</td>
<td>There is a risk of insularity within communities as ‘silos’ and the closure of outward-looking innovation.</td>
</tr>
<tr>
<td>understood)</td>
<td>practices and promote local knowledge creation.</td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>Flexibility and responsiveness to new problems of practice are</td>
<td>Knowledge creation tends towards short-term ‘solutions’, a ‘race to the bottom’ and limited significance.</td>
</tr>
<tr>
<td></td>
<td>encouraged.</td>
<td></td>
</tr>
<tr>
<td>Hierarchy</td>
<td>Managerial techniques of control can effectively disseminate already</td>
<td>Bureaucratic hierarchies provide weak incentives to create new knowledge and lack sensitivity to tacit knowledge.</td>
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<tr>
<td></td>
<td>codified knowledge.</td>
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Table 1: The strengths and weaknesses of three different organising principles of professional work for knowledge creation identified by Adler et al 2008 (adapted from Ellis 2014)
Adler et al claim that their new, theoretical model of collaborative community integrates the three organising principles. Collaborative community as a model addresses hierarchical forms of management, market pressures and competition while simultaneously transforming traditional community principles. It does this by encouraging responsiveness to new work situations and the exercise of distributed agency and by challenging local knowledge creation to have much wider, public impact. It recognises economic contexts without regarding the economics as over-determining; similarly it accepts that organisations (such as schools) often have strong vertical accountabilities but proposes that horizontal and rhizomatic collaborations are more likely to lead to innovative new ways of working for the greater good.

Building on Adler’s research and neo-Vygotskian theory, Ellis (2014) has argued for collective creativity as a key criterion of professional work and professional creativity as a defining characteristic of the professionality of teaching. Centrally relevant to this idea of professional creativity is the Vygotskian concept of intellectual interdependence, the ‘process of construction of new ideas through the transformation of old ones in a communicative process’ (van der Veer & Valsiner 2000, 12). It is the contribution of these new and transformed ideas to the knowledge-base of a collaborative community that allows the profession to grow and develop, exercise its collective, distributed agency and act with responsibility and trust. The development of professional creativity then becomes a core focus of any programme of teacher preparation – through an induction to the profession’s systems of ideas and their modes of interrogation, the professional teacher is able to respond to unpredictable situations with new ideas and practices on an independent basis but drawing on a shared, collaboratively-built knowledge-base and, potentially, contributing something of significance to it.
The more open view of professions we have been discussing in this section – and the implicit shift away from understanding professionalism merely as a question of the individual professional’s rights and authority – has focused particularly on the responsibilities for knowledge creation based on values and ideals that are subject to deliberation within a collaborative community that looks outward, not only towards clients but to the wider society. As such, we are arguing that a profession such as teaching can have productive relationships on the one side with other professionals such as teacher educators and other academics in the public universities and, on the other, with the parents and communities of the children they teach and, beyond, to society. Understood in this way, understood as ‘the degree of autonomy – or insulation from external control – necessary to fulfill the democratic functions of office,’ professionalism, as Gutmann (1999) has put it, ‘completes rather than competes with democracy’ (p. 77; our emphasis). Professions – like public universities – are not barriers to the improvement of public services such as teaching; they are not part of ‘The Blob’ as one former English Education Secretary (and one former US Secretary for Education) put it (see Chapter 2). Their claims to relative autonomy derive from their demonstrable expertise in specific domains of human activity and their responsibilities to sustain and develop the historically-accumulated knowledge held within those domains. Together, professions and public universities might contribute more fully to the necessarily dialogic process of improving education, schools and, specifically in relation to our interests in this book, the preparation of teachers. In the next section, we look at how such relationships between public universities and a public sector profession such as teaching might be conceptualised.
PUBLIC UNIVERSITIES AND THE PROFESSION TOGETHER: TRANSFORMING TEACHER EDUCATION

The types of - and the qualities of - relationships between public universities and the teaching profession are key to our arguments in working towards an agenda for the transformation of teacher education. In many respects these aspirational relationships – specifically those that are formed around the initial preparation and continuing development of teachers – might be described as ‘coconfiguration’, a concept that has emerged within the CHAT tradition of organisational learning research (Engeström 2007). Coconfiguration has been defined by Engeström as ‘an emerging, historically new type of work’ that relies on responsiveness to context; ‘continuous relationships of mutual exchange’ between stakeholders; continual evaluation and development of key processes; the active involvement of stakeholder-groups that might usually be defined as ‘end-users’; the creation of boundary-zones or ‘third-spaces’ where collaborators move beyond their own practice settings; and mutual learning on the part of all collaborating partners (2007, 24). Engeström relates coconfiguration to the CHAT concept of ‘knot-working’ (joint activity that is focused on complex, boundary-spanning problems that emerge, expand and require multiple forms of distributed expertise to address).

Knot-working as a description suggests that ‘no single actor has the sole, fixed authority’ in the collaborative creation of new knowledge (ibid.); it differs in kind from older forms of partnership and collaboration in its focus on ‘negotiation, exchange and trading’ and its characteristic features of being transformative in radically expanding (growing, making more complex) the potentially shared objects of activity; of emphasising experiencing in its attention to personal, embodied engagement with material artefacts in working on the future
of an activity; of being *horizontal* as a form of dialogic learning that ties knots between
different activity systems and actors; and unfolding in *subterranean* ways – sometimes
‘underneath the radar’ and barely noticeable as its sets the ground for new kinds of knowledge
and practice to emerge and making them viable (p. 38). In other words, coconfiguration is an
attempt to conceptualise collaborative partnerships between multiple organisations that have
different priorities and primary objects but that come together to work on particularly
‘knotty’, socially complex and challenging problems. This form of collaborative working
requires designed social spaces for the partners to come together and trust teach other and the
shared commitment to do things differently, to produce some new ways of working that will
lead to the creation of new knowledge that can be capitalised for the public good.
Conconfiguration as a concept therefore recognises the political economy of professional
learning as well as the high levels of trust and personal engagement that are required.

Understanding the relationships between public universities and the teaching profession as
being based on the coconfiguration of new knowledge-laden practices is a different prospect
to understanding them as forms of ‘partnership’, as we have come to describe them most often
in England. Even the scarce and hard to identify kinds of ‘collaborative partnerships’ between
schools and HEIs that Furlong and colleagues categorised (Furlong et al 2000) are based on
more traditional hierarchical relationships between partners, more vertical lines of
‘accountable’ collaboration and more stabilised and stablising models of ‘knowledge
transfer’. Knowledge that might have been produced within what was often regarded as the
gold standard of the ‘research-informed’ collaborative teacher education partnership was
nonetheless deemed ‘applied’ and highly situated, requiring the higher education partner to
‘abstract’ it in order to have wider meaning. From this perspective, it is always higher
education that ‘adds value’ to what schools do; there is little or no acknowledgement that there might be a strong (or even stronger) reverse contribution.

Instead, knowledge produced through co-configuration explodes such a distinction between ‘basic’ and ‘applied’ modes of knowledge creation; it is knowledge that has to be tested within multiple and intersecting communities of practice, that has to meet the standard of trustworthiness and reliability set by different systems of justification. Good arguments can be made that knowledge created through such ‘hybrid’ practices of co-configuration are stronger and more likely to lead to innovation and positive change in complex, changing and societally significant practices such as school teaching. The kind of hybrid practices of co-configuration that might potentially characterise a transformed teacher education align very closely with the mode of knowledge production identified by Gibbons et al (1994) as Mode 2. Although Gibbons et al’s research arises out of the sociology of science rather than CHAT, their work is relevant to our argument as it emphasises the complex social mediations necessary for the emergence of new ideas.

**Hybrid practices of co-configuration and Mode 2 knowledge production**

Gibbons and his colleagues argued that traditional (Mode 1) knowledge-producing communities (experimental science being their key example) have responded in complex ways to demographic and technological change as well as economic globalisation. The scale of this response has been significant to the extent that a new mode of knowledge production is identifiable, Mode 2. Mode 1 knowledge production is determined by academic interests that are ‘primarily cognitive’ in orientation (Gibbons et al 1994, p. 1). Organisational, this
type of knowledge is produced and accessed within communities that tend to be hierarchical and ‘homogenous’ and prize autonomy. By contrast, Mode 2 knowledge production is characteristically heterogeneous, transdisciplinary, socially accountability and reflexive. Mode 2 knowledge arises out of hybrid social practices that are at the same time academic and non-academic, instrumental and critical, personal and political. Mode 2 offers a good description of a highly-networked, participatory, diverse and distributed mode of knowledge production, one that relies on distributed agency and trust between its partners.

However, as Nowotny et al (2003) later reflected, the Mode 2 idea was taken up differently across disciplines, also noting that these different and sometime ill-informed appropriations of the idea came from those with ‘most to gain … struggling to wiggle out from under the condescension of more established … disciplines’ (p. 179). Also, as Nowotny et al noted, many appropriations of Mode 2 erased the political economy of the concept with the knowledge created not being contextualised within the value systems and exchange relations of the institutions within which they are put to use. In terms of higher education research, for example, some appropriations of the Mode 2 idea might ignore the realities of academic capitalism as the dominant system of values and exchange, as we discussed earlier. Nonetheless, Mode 2 does at least offer a useful metaphor for the shift in the ways that knowledge is produced across the professional, policy, critical and public domains. It also differs from older arguments within Education about ‘practitioner’ knowledge that is ‘insider’ knowledge and in opposition to ‘outsider’ or more publicly available knowledge.

Indeed, at the core of Mode 2 is a fundamental cultural-historical idea: a ‘dialogical process, an intense (and perhaps endless) “conversation” between research actors and research
subjects’ (p. 187). This blurring of identifications of investigators, end-users, ‘scientific peers’ also contributes to the blurring of categorisations of basic and applied research that is implied by conconfiguration as well as confounding traditional linear chronologies of ‘projects’ (with the absolute finality of dissemination and subsequent impact). As such, Mode 2 offers a challenge to conventional understandings of research and knowledge production, especially in higher education settings, as much as it is a description.

The nature of this challenge is indicated by the use of *agora* to represent the hybrid spaces of the original Mode 2 theorisation (Gibbons *et al* 1994). *Agora* suggests market-place as well as meeting point and therefore seeks to account for different kinds of capital while underlining the political economy of the knowledge-creating situation. Gibbons originally used hybrid space to describe the ‘meeting point of a range of diverse actors, frequently in public controversies’ (p. 167). Hybrid space related to the third Mode 2 principle of ‘organisational diversity’. In Nowotny *et al*’s 2003 reflections, however, *agora* is a more explicitly political and economic zone of proximal development – it is literally a social market that is a space for the growth of new ideas:

The *agora* is the problem-generating and problem-solving environment in which the contextualisation of knowledge production takes place. It is populated not only by arrays of competing ‘experts’, and the organisations and institutions through which knowledge is generated and traded, but also by variously jostling ‘publics’. It is not simply a political or commercial arena in which research priorities are identified and funded, nor an arena in which research findings are disseminated, traded and used. The *agora* is a domain of primary knowledge production – through which people enter the research...
process, and where ‘Mode 2’ knowledge is embodied in people and projects.

(p. 192)

From the field of organisational science, Paul R. Carlile also emphasises the personal, political and economic implications of creating new knowledge at the boundaries of different organisations that come together in such Mode 2 knowledge-creating, collaborative communities:

For all groups involved, it is their ability to create and explore the ‘knowledge potential’ at the gap, where these practical and political abilities go hand in hand in transforming knowledge and generating innovation at a boundary. Recognising the political and practical issues that arise is consistent. (Carlile 2002, 29)

The potential relationships between public universities and the teaching profession, embodied in the joint work of departments or faculties of Education and schools, and enacted in the labour of HEI-based teacher educators and teachers, can be conceptualised as one such difficult and antagonistic *agora*. In structural terms, at least, the channels of communication and the possibilities for collaboration exist and, in England, have been mandated for 20 years, even though their potential as complex zones of proximal development has not been realised systemically.

Zeichner and colleagues (2012) have used the concept of ‘horizontal expertise’ from CHAT to speculate on the possibilities for more egalitarian and democratising teacher education
practices, where partners’ ‘different interests, values and practices’ can be socially mediated and a new and potentially transformative shared object might emerge (p. 7). Zeichner has also drawn on Engeström's (2008) concept of knot-working to suggest that the participation of multiple actors with diverse expertise needs to be more fluid and object-(or problem-) oriented than conventional institutional structures allow in order to improve public education. Again, such an injunction to approach teacher education as knot-working and the related call to shift our understandings of research and knowledge creation to align with a Mode 2 perspective, present a serious challenge to business-as-usual in the academy, as well as in the schools. For many HEI-based research-active teacher educators, it would mean a different kind of knowledge is prioritised and valued – knowledge from the *agora* rather than knowledge from the *acropolis*. In other words, knowledge that has use-value in practice situations, that has been produced within rule-governed systems of scholarly inquiry but that also connects to the policy sphere in critical ways, and knowledge which is deliberated in the public sphere – this becomes the knowledge that is valued, the knowledge that makes a difference in terms of the improvement of practice in relation to articulated aims for education and that might also contribute to the growth and flourishing of the academic discipline of Education. This challenge and the required shift means there is something to give up for all potential collaborators in shared aspirations for a collective gain. Understood from this perspective – and understanding hybridity etymologically – hybrid practices of knowledge production within relationships of coconfiguration are likely to be more generative, more socially accountable, reflexive and supportive of the better preparation of teachers, the agency and creativity of the profession and the strengthening of the Education discipline and the possibilities for meaningful work of those who labour within it.
Distilling some principles: Public universities and the profession working together on transforming teacher education

Following on from the above discussion, we now offer five principles that might guide the wider society, HEIs, schools and communities in changing the terms of the debate about the preparation of teachers and transforming teacher education:

**Principle 1:** Higher Education Institutions are public institutions – public universities - with democratic functions that merit relative autonomy and require academic freedom to be sustained in order to complete their work in society and, specifically, make a qualitative difference to the preparation of teachers for schools.

**Principle 2:** The discipline of Education in public universities can model the difficult, integrative balance between professional, policy, critical and reflexive knowledge required of all disciplines and should seek new associations and new relationships inside and outside of the academy in order to realise this balance.

**Principle 3:** The profession of teaching is a collaborative community deserving of the distributed agency afforded by an enabling state and with responsibilities for the development of the collective, professional creativity that makes a positive difference to the education of young people in schools.

**Principle 4:** The relationships between higher education and schools around the preparation of teachers might be understood as
coconfiguration of new forms of activity rather than merely structural partnerships and channels of communication.

**Principle 5:** Coconfiguration of teacher education activity can produce strong, Mode 2 forms of research and development that has systemic impact as well as having benefits for all collaborators, including HEI-based teacher educators.

**RECONFIGURING THE ACADEMIC WORK**

The aspirational principles we have presented above are necessarily wider than higher education alone or the profession alone. In elaborating them, we have sought to integrate HEIs as public institutions with the wider society in terms of their knowledge-creating functions at the same time as conceptualising the profession of teaching as a collaborative community with obligations to exercise responsibility (specifically in relation to professional knowledge) with relative autonomy and a commitment to democratic rather than narrowly political accountability. In both cases, we have emphasised the importance of trust (within society and within and between institutions) and distributed agency – the responsibility to act with freedom of movement within a specific domain of knowledge and practice with a future-orientation. Our principles arise out of research in human learning and development, cultural-historical psychology, organisational theory and the sociology of science and of the professions. They are also underpinned by an evolutionary theory of innovation in which greater variation in the social situation of development creates the conditions for the emergence of new ideas, new tools and new associations (Miettinen 2013).
In this final section of the chapter and of the book, we turn to specific actions that lead out from these principles and that might contribute to our agenda for transformation of teacher education. In doing so, we move away from the broad landscape of professional education and the proposals for coconfiguration we have been outlining and turn specifically to higher education and the possibilities for reconfiguring work within academic contexts. As with the book as a whole, the actions we propose speak specifically to the English context, our context as authors, which, as we have argued, is one that presents an interesting case internationally.

As Seddon et al (2013) point out, however, within the context of globalisation, there are certain ‘travelling’ education reform ideas that “touch down” within national territories and systems of education’ and are intended to disturb ‘the spatial, temporal, relational and knowledge boundaries that once secured specific national forms of teacher professionalism’ (p. 4). We believe that teacher education has become a key focus for these globally travelling education reform ideas with their narrow focus on ‘teacher quality’ (measured in terms of student test scores). So while the localisations of these ideas can vary from setting to setting, we believe that our general argument - along with these principles and the following actions – have a relevance that is wider than England.

**Action 1: Create the conditions for change through powerful arguments in the public sphere**

Towards the end of John Furlong’s *Education – An Anatomy of a Discipline* (2013), he comments on the ‘massive undermining’ he sees of the post-war situation of higher education and teacher education, specifically, in England. He asks how university Education departments have responded:
They have been silent. Very few people will stand up and say, ‘In the face of the current challenges, this is why education must be a university-based discipline; this is what the university can contribute that is distinctive, that is important. (Furlong 2013, 167)

To create the conditions necessary for transformation on the basis of the principles we have just set out, it is essential that educationalists (whether they are HEI-based academic workers or school-based professionals, trade unionists or others) contribute to arguments about education, schooling, teachers and teaching in the public sphere. This necessary action is rhetorical – making strategic interventions in the ongoing public debates that have been dominated by speakers from neoconservative or neoliberal, and very often, narrowly party-political positions driven by electoral cycles. The failure of educationalists both to initiate debates as well as to change the terms of public debates has been startling, with very few exceptions. Likewise, the failure of senior leadership in HEIs over more than twenty years to define and protect the academic freedom of their Education departments has contributed very strongly to our current situation. On the one hand, institutional anxiety (whether over securing income from sometimes high volume ITE programmes or over general issues of political compliance) has cumulatively eroded the independence and critical agency of HEI Education departments to the extent that, in England, the final say in quality assurance has been handed over to the government inspectorate. At what point did the leaders of our public universities agree that control over the content of the teacher education curriculum would be determined by politicians and compliance with it would be policed by civil servants with automatic right of access to university premises and access also to institutional policies, people and data? That point of principle lost, it will be difficult but not impossible to argue it back. Rather than defensively arguing back to the reformers on their terms, it will be necessary to argue in the
wider public sphere (as the reformers have learned to do so well) with new propositions about the importance of academic freedom and distributed agency for the real improvement of public services such as schools as well as for the general health of society.

On the other hand, educationalists in public universities also need to assert the importance of engagement with schools and the importance of teaching as an area of critical inquiry and research activity that leads to the creation of useful knowledge with both exchange value and impact. Strong arguments can be made for research that arises from coconfigurations of teacher education activity that challenge the short-termist and economist criteria of judgements made under conditions of academic capitalism. In England, the ‘impact agenda’ (under which researchers are required to demonstrate the difference their research has made to culture and practice (under the rubric for the 2014 Research Excellence Framework (HEFCE 2013)) can support such arguments for a more engaged and powerful educational research. Mode 2 knowledge production is valued in many disciplines and rewarded appropriately within institutional and scholarly communities as well as in promotion and career development structures. Again, instigating the change in criteria will be difficult, especially when in some contexts educational researchers have been advised to model their activities mainly on those in ‘basic’ disciplines such a sociology or psychology. But again, change is possible and it will be through motivated, strategic and skilful rhetorical action in the public sphere that transformation in the conditions for the preparation of teachers can begin to be realised. This action sets a challenge for senior leaders in HEI Education departments who we believe have primary responsibilities for creating the conditions for change.
**Action 2: Design professional learning around complex understandings of practice**

The fragmentation of ITE programmes has frequently been identified as a barrier to their success in preparing teachers (c.f. Grossman et al 2009; Smagorinsky et al 2003). Taking classes in HEIs (in the US, sometimes even in different departments or faculties) and then undertaking some supervised teaching in neighbouring schools, it is said, has contributed to a theory-practice divide that limits the full and rich appropriation of research-informed ideas in the practical work of teaching. Efforts to address this problem have led to HEIs holding lectures on school premises as well as initiatives such as teacher residencies (e.g. Zeichner 2013) or internships (e.g. McIntyre 1990) where the majority of the time on the ITE programme is spent in the workplace, in schools, and teaching in classrooms. Support and feedback is provided a mentor and there is a contribution from an HEI that ‘wraps around’ the work-based learning of the student teacher and is more limited in scope than many traditional ITE programmes, particularly those in the US (although it is worth noting that residencies and internships vary considerably).

While attention to space and time is important when planning designs for learning, the way in which practice is conceptualised is also vital in programmes of professional preparation such as ITE. The learning of a professional practice carries with it the sense of being involved in the critical dialogue within and outside the profession about aims and purposes in relation to wider discussions about the future of society, to which the practice might contribute. Professional learning also necessarily involves engagement with the historically-accumulated and evolving knowledge-base of the profession so that knowledge and practice are seen as different emphases on the same activity: knowledge-in-practice becomes the focus of
development in a professional learning programme and the challenge is to reject the persistent Cartesian dualism that still underpins many approaches to formal education.

Magdalene Lampert’s 2010 essay ‘Learning Teaching in, from and for Practice: What do we mean?’ raised many important questions about how practice might be conceptualised when we design teacher education programmes. In concluding that paper, Lampert posed what she thought was the ‘most important question’ about ‘use of the word practice in relation to learning teaching’: whether it should be understood as an individual phenomenon or whether it is ‘something created and maintained by a collective and learned by participation in that collective’ (Lampert 2010, 32). In this book, we have been arguing that practice is a collective phenomenon, whether a collective of teachers, of teacher educators, or a hybrid and internally differentiated, ‘knot-working’ collective that comes together to work on a tricky but societally important problem such as preparing school teachers. By understanding practice as a collective phenomenon, ‘stretched over’ (to use Lave’s term [1988]) individuals within a community that shares historically-accumulated knowledge and with a future-orientation to those practices that are subject to public deliberation, we are more likely to improve teacher education.

Although it is now sometimes fashionable to dismiss communities of practice theories as ‘mere’ participation and ‘learning by doing’ in idealised, always collegial groups, we believe it is worth re-visiting one of the key tenets of the original idea from Jean Lave and Etienne Wenger’s research on situated learning (1991). The essential dynamic at the heart of any genuine community of practice is the ‘continuity-displacement contradiction’. The continuity-displacement contradiction is Lave and Wenger’s central challenge to a reproductive or
acquisition view of learning based on a static notion of knowledge to be internalised and a stable set of practices to be routinised (ironically, a view of professional learning that has characterised many reformist positions on ITE down the years that regard it merely as training in ‘what works’). Innovation is impossible within such a closed system of acquisition and reproduction. Instead, the continuity-displacement contradiction at the core of a community of practice puts the personal engagement and embodied perspectives of newcomers and old-timers into productive tension and one far from sentimentalised understandings of ‘community’:

Newcomers are caught in a dilemma. On the one hand, they need to engage in the existing practice, which has developed over time: to understand it, to participate in it, and to become full members of the community in which it exists. On the other hand, they have a stake in its development as they begin to establish their own identity in its future. (Lave & Wenger 1991, 33)

Lave and Wenger’s argument is that this contradiction involves conflict and tension (between the expert or more experienced and novices) centred on learning, participating and a developing sense of identity. It is through the ‘continuity-displacement contradiction’, arising out of the negotiation of increasing participation for ‘newcomers with their own viewpoints’, that the conditions are established for the generation of new knowledge:

. . . legitimate peripheral participation is far more than just a process of learning on the part of the newcomers. It is a reciprocal relation between persons and practice. This means that the move of learners toward full participation in a community of practice does not take place in a static context. The practice itself is in motion. (p. 3)
Understanding practice as being ‘in motion’ is important when designing professional learning programmes for a number of reasons in Lave and Wenger’s theory but for our argument in this book it helps us to bridge the theory/practice divide we discussed earlier in this section as well as extend the concept of distributed agency. In analysing his research on practice development in commercial and industrial settings, Engeström (2007) discusses the frequently noted ‘gap’ between good ideas and ‘implementation’ in traditional forms of intervention. In proposing coconfiguration as a more generative description, he notes that when it has seemed to work well ‘the personal and the collective, as well as the immediate and the future oriented, seem to merge’ (p. 36). Echoing Lave and Wenger, Engeström notes the importance of a ‘projective identity’ (Gee 2003) for the participating practitioners and personal engagement in human learning and development. The research and evidence we have been drawing on throughout the book suggests to us that the more complex understanding of practice we have been advocating is also more likely to improve the retention of teachers within the profession.

A related concept from communities of practice theories that we believe is useful in our argument in this section is that of ‘core blindness’, the sedimentation of practices in the work of ‘old-timers’ or experts and the invisibility of the purposes and rationale driving them and the accessibility of the knowledge with which they are in a dialectical relationship. Lave and Wenger associate this phenomenon with ‘full’ participation by those at the core of a practice, those that might have a desire to sustain the status quo. One of the positive outcomes of the tension produced by the continuity-displacement contradiction is the potential opening-out of discussion about purposes and rationales between experts and novices and the associated
increased visibility and insight on the part of experts and experienced practitioners. One of the ways in which this new insight is achieved is through participation in other, related practices and by comparing the experiences of participating in both so that the premises and possibilities of both are illuminated.

Recent work on ‘pedagogies of enactment’ in ITE (e.g. Grossman et al 2009) has started to unpack how a practice-based teacher education curriculum might work. The focus in this research on identifying ‘core practices’ of teaching stress the importance of attending ‘to both the conceptual and practical aspects associated with any given practice’ (Grossman et al 2009, 8). This line of research and development also shows how such ‘core practices’ might be ‘decomposed’ or ‘parsed’ so as to develop something like a functional grammar of teaching. Critics of this approach might argue that the decomposition of practices into separate elements on the basis of effect size (however determined) is reductive insofar as it isolates the technical aspects of an action without attention to its sociocultural, historical, political and economic contexts (i.e. its meaning) as a human activity. Another criticism might be that, with such an emphasis on teachable routines, learning and instruction are designed in response to data-driven representations of a whole class of children rather than responsiveness to the real, actual children, perceived in the interaction. Nonetheless, researchers in this recent tradition have made great efforts to embody the outcomes of their inquiries in the content of their institutions’ teacher education programmes. New possibilities for what might go on in HEI-based teacher education classes have been demonstrated where a sharp focus on specific routine or ‘moves’ is modelled and demonstrated by the HEI-based teacher educator, inviting the student teacher to appropriate such ‘approximations of practice’ (ibid.) by way of a form of cognitive apprenticeship.
Our view is that the development of a pedagogy of enactment is worthwhile when it draws in the school-based teacher educator, mentor or cooperating teacher. ‘Decomposing’ a real episode of teaching in the course of that teaching – utilising strategies for collaborative teaching, modelling ways of working and then creating opportunities for student teachers to join in while they become increasingly independent – is likely to be a very powerful means of scaffolding school-based, practice-focused ITE. But it will not necessarily produce the continuity-displacement contradiction that will allow the practice to develop nor will it necessarily enable the personal engagement in critical dialogue about the aims and purposes of the practice under examination, the sort of engagement that is likely to build the agency of the beginning practitioner and encourage them (as a key attribute of this design for professional learning) to develop the intellectual interdependence necessary for professional creativity. We do not dismiss ‘core practices’ as an approach to teacher preparation but ask whether, within the kind of reconfigured academic work we are seeking, a pedagogy of enactment in ITE is the sole or main responsibility of the HEI-based teacher educator. It seems to us that working with teachers to keep a practice ‘in motion’, stimulating continuity-displacement contradictions (within schools but also within HEI departments and faculties of Education), and maintaining a close focus on the knowledge-in-the-practice, enabling both access to it and the development of it, is a more appropriate and beneficial role for the HEI-based teacher educator.
Action 3: Rebuild the research programme in teaching and teacher education around theory-building, cross-setting intervention research

Stimulating continuity-displacement contradictions, as we have suggested above, is also something that might contribute to the development of the HEI-based teacher educator as an academic worker as well as the discipline of Education. These developments might be attained not only by creating opportunities to keep the school-based practices of teaching in motion but by allowing the challenges surfaced by such processes to develop new lines of inquiry in higher education’s educational research communities. As Ellis has argued (2011b), stimulating the professional creativity of teachers is also likely to lead to the stimulation of teacher educators’ professional creativity, in the terms described, one manifestation of which might be the growth and the strengthening of robust research programmes in teaching and teacher education. The Education panel in the 2008 UK RAE noted that these once strong areas of research activity in higher education (see also Chapter 6) had withered away somewhat while other areas such as the sociology of education and experimental studies had strengthened (HEFCE 2009).

The cultural-historical perspective that has informed this book regards closeness to practice and engagement with theory as twin aspects of the same processes of research and development. Rejecting dualistic understandings of mind and behaviour, cultural-historical theory (and its interventionist iteration, CHAT) requires us to attend to the materiality of human activity in order to understand the development of higher psychological functions. So in teacher education activity, the division of labour (between schools and universities but also within universities) matters for the kinds of new knowledge that it is possible to create and mobilise within activities that are designated as ‘research’. CHAT, specifically, offers us the
tools of an interventionist tradition with a developmental purpose and works from an interested standpoint. So the approach to research and development we have been advocating—drawing particularly on Gibbons’ and Nowotny’s concept of Mode 2 knowledge production and Engeström’s coconfiguration—necessarily challenges the ‘disinterested’ standpoint that is often still advanced as a key criterion of academic research. A researcher following the approach we have been outlining does not seek to tell school teachers what to do, for example, by delivering ‘findings’ to ‘end-users’. As Engeström noted in his reflections on design experiments, such a linear view of knowledge transfer ‘ignores what sociologists teach us about interventions as contested terrains that are full of resistance, reinterpretation, and surprise’ (2007, p. 369). Rather, researchers in this new and emerging tradition seek the development of ‘critical design agency’ among all the parties: researchers, teachers, and students or, respectively, researchers, managers, workers, and clients’ (p. 370; emphasis in the original). As Ellis (2013) has suggested:

In terms of the current relationships between university education faculty and school teachers, this aspiration for the collaborative exercise of different agencies presents a formidable challenge, not the least of which is a risk associated with the general approach which Engeström describes as ‘paternalistic manipulation’ (p. 382). But the challenge also extends to school teachers who must also be willing to give up their rugged or ‘heroic’ individualism and the tacit wisdom of the ‘craft’ in order to gain greater control over their own activities and their development through an active engagement in the production of new knowledge. (Ellis 2013, 213)
The possibilities for rebuilding the research programme in teaching and teacher education are not limited to CHAT-informed approaches, of course. For example, recent developments in design-based intervention research in the United States give a strong sense of the nature and scale of the change that is required, as Gutiérrez and Penuel (2014) have suggested when arguing that the education research community needs to understand the limits of generalisability:

This requires a shift in focus of research and development efforts, away from innovations designed to be implemented with fidelity in a single context and towards cross-setting interventions that leverage diversity (rather than viewing it as a deficit). It also suggests the need to focus some research and development projects on the design of new organisational routines and infrastructures for improvement…

(Gutiérrez and Penuel 2014, 22)

Such an approach to research and development might support the strengthening of the discipline of Education overall at the same time that it builds the research programme in teaching and teacher education. In some ways, it runs contrary to the advice given to some Education departments in England in the recent past which has been to model their intellectual activities on the ‘foundational’ disciplines such as sociology, philosophy, psychology, and so on. Focusing research on ‘the design of new organisational routines and infrastructures for improvement’ is a rather different prospect but it is also one that is found in many higher education disciplines (such as Engineering, for example) and for which there is probably greater evidence of flourishing in countries such as the US. This approach is also
one that would support the integrative balance between professional, policy, critical and
reflexive types of knowledge that we discussed earlier.

With particular reference to policy, we also believe that a rebuilding of the research
programme in teaching and teacher education along these lines would be more likely to
connect to the policy ‘audience’ and help to inform debates in more constructive ways than
has sometimes been the case. In a recent article in Educational Researcher, Christine Sleeter
questioned the impact of much teacher education research on policy-making (Sleeter 2014).
In making her analysis, Sleeter referred to studies by Nelson et al (2009) and the American
Educational Research Association’s Panel on Research and Teacher Education (2005) that
reported on the research-policy interface. Nelson et al interviewed 65 US policy makers and
found a distrust of much educational research, including ‘experimental studies, viewing them
as too narrow’ (p. 147). Instead, Sleeter observed, ‘they paid most attention to evidence of
interventions that can be applied systemwide, are locally relevant, and are sustainable’ (ibid).
Building a research agenda around cross-setting interventions that show how good ideas
‘interface with local realities’ (ibid.) while also generating theory (with CHAT being one
good example of how this might be achieved) is also a way in which HEI-based teacher
educators – with the wealth of knowledge and experience they usually bring from
professional settings, combined with academic and research training – might contribute more
productively to the education of teachers. At the same time, this work will be of the type that
will (and in fact, already does elsewhere in HEIs) enable the flourishing of the discipline as
well as the individual teacher educator.
In setting out five principles and three actions that, together, might offer in outline an agenda for the transformation of teacher education, we are aware that much more goes on in Education departments and faculties than the initial or ‘pre-service’ education of teachers. As a discipline, Education is not only concerned with schools nor only with teachers nor, indeed, young people just in their role as students or ‘pupils’. But we want to recognise that there is a historical problem, one that has come to fore with some intensity recently in England and elsewhere, which means that in order to get Education right in higher education and, indeed, in order to get teaching as a profession right, we need to do something about the work of HEI-based teacher educators. The issue, as we have shown, is wider than universities and schools, however, and this final chapter has been our attempt to lay out an agenda for positive change based on key principles and urgent actions that take into account the place of higher education and the profession of teaching in society generally as well as the more immediate and local concerns of one occupational group, no matter how important their work.

**A DIFFERENT FUTURE IS POSSIBLE**

We began the book with a speech by a fictional principal of a College of Education, Prin, as she celebrated the graduation of the final year students - as it turned out, the final ever to graduate from that college. It was a situation that William Taylor had cruelly caricatured in *Society and the Education of Teachers* in 1969, a situation in which:

- a diluted form of gracious living was engaged in by a largely spinster staff, in an impressive if educationally unsustainable and draughty building at the end of a mile long drive, ten miles from the nearest town. (Taylor 1969, 205).
As Maguire and Weiner (1994) noted, women teachers who became teacher educators were vulnerable to a form of proletarianisation from the earliest beginnings of the training colleges, working long hours, having salary reduced for board and lodging, teaching a ‘main subject’ and a ‘subsid’ and being required to ‘involve themselves in the social and religious life of the college’ (p. 125). In several respects, it could be inferred, they would have been better off if they had stayed in schools. Maguire and Weiner also pointed out that these women’s work in training colleges was a form of emotional as well as social and intellectual labour. What we have referred to as relationship maintenance in our own research - a defining feature of contemporary HEI-based teacher educators’ work in England, we argued – was built in to the identity of the training college educator from the start:

Their role was educational as well as related to the emotional well-being of the students. Even those in higher positions had a part to play in the ethos of ‘caring’ and commitment to the students’ psychological health. (ibid., 126)

Maguire and Weiner noted the dedication to the job and the sense of ‘mission’ that these women teacher educators felt, often to their own personal economic and career detriment. Over time, men took the senior posts and the higher salaries in these colleges, even though they may have been less qualified as the women they managed. Women did what was necessary to keep house and ensure that the job of educating teachers was carried out with as little disruption as possible.
In this book, we have argued that the division of labour between academic workers in higher education departments and faculties of Education continues to reproduce a system in which a specific group - the teacher educators - find it hard to extract reward from their labour within a predominantly academic capitalist system of values and exchange. The problems of this current system are wider than the individual teacher educator’s career development; they reflect both a weakness within the wider higher education discipline of Education and the reduced form of professionalism that has become available for teachers. Paying attention to what teacher educators do and how they work with student teachers matters because it reveals both the vision and direction of travel for Education as a discipline as well as the forms of agency that are available for the profession. So our argument in this book has been partly a call for the re-imagining of HEIs as public institutions and partly a call for the re-imagining the professionalisation of teaching.

In making our argument, we have been careful not to defend the status quo and to try to justify that what goes on presently in the name of teacher education is always perfect. Instead, we have tried to suggest a way of reframing the debates about educating teachers on the basis of principles concerned with the relationship between higher education and society, HEIs and the professions and the challenges of societal development in a globalised world where economic innovation and the development of human capabilities (rather than human capital) are not mutually exclusive (Mietteninen 2013). Our principles and our proposed actions are supported by the research evidence: for example, creating challenging tensions with teachers’ communities of practice in order to improve outcomes for students has a good effect size, according to syntheses of the ‘best evidence’ (Timperley et al 2007); evaluations of teacher education policy across Europe have long identified the need for new kinds of active systemic relations between HEIs and schools that go beyond the structural connections of partnership
(Buchberger et al 2000). But we have not written a book that argues back to reformers on their terms; we have not sifted the evidence for variation in effect size in experimental studies that seek to raise test scores. We have not sought to defend teacher education against the reformers. We have sought to develop a research-informed agenda for transformation and to that extent we have followed Lakoff’s advice: ‘Do not use their language. Their language picks out a frame – and it won’t be the frame you want’ (Lakoff 2004, 3).

Our proposed actions are, perhaps, the part of our agenda that is most specific to England. As we have said, we do believe that England presents an unusual case internationally in terms of the relationship between the state and market principles, neoconservatism and neoliberalism and a residual welfare state that has controlling rather than enabling instincts. Nevertheless, the three actions we have outlined might have a relevance beyond the English context. They do, at least, emphasise the fact that while there are no quick fixes, the way we prepare teachers probably does need to change.

Discussions of the future of teacher are often imbued with a deep fatalism, sometimes (but not always) supported by sociological critiques of a totalising and deterministic kind. We end by repeating an obvious but sometimes hidden assertion: another future is possible. The ruptures and resistances that complicate educational reforms can be brought together in systematic ways to provide a reasonable and reasoned alternative to the dominant perspectives; ‘non-reformist reforms’, as Lipman (2011) described them, collaborations among diverse groups that can set new parameters for possible solutions, transforming not reforming or defending teacher education as it is.