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All Animals Learn, but Only Humans Teach: The Professional Place of Teacher Educators

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Abstract: The profession that creates all other professions has been subject to much debate in recent years. Largely invisible at times, teacher educators have recently been visible mainly in the negative headlines which have surrounded attempts to disrupt this important, but often unsung, profession in order to introduce neoliberal reforms. This paper uses both Eliot Freidson's three logics (adding artificial intelligence as a fourth logic) and Clarke's Place Model to deconstruct and map the contested place of the teacher educator in respect of status and career-long learning journey. The question, 'who is my teacher education professional'? is addressed, highlighting the complexity surrounding teacher educators' roles and realms. In a world where many animals learn but only humans teach, teaching teachers is poorly recognised for the singularly inclusive profession it might be.

Keywords: teacher educators; professionalism; place model

1. Introduction

This paper aims to analyse the professional status of teacher educators by first considering how Freidson's three logics impact this status. Freidson's three logics—professionalism, markets and bureaucracy—are brought into an uneasy form of enforced symbiosis and they will be increasingly joined by artificial intelligence, whose widely identified black box opacity and role in *surveillance capitalism* [1] are arguably sufficient cause to identify it as a discreet fourth logic. Freidson's [2] ideal concept of professionalism was where "the organization of, and control over work is realized by the occupation instead of by the market or by a hierarchy". Freidson saw professionalism as the 'third ideal type alongside Adam Smith's 'free market' and Max Weber's 'bureaucracy' [3] noting that all three can be regarded as different ways of organizing work. Freidson [2] believes that having control over one's own work is one of the key facets for the ideal typical profession and that, in order to maintain such a status, it must be able to "neutralise…the opposing ideologies which provide the rationale for the control of work by the market on the one hand, and by bureaucracy on the other".

Professionalism can be regarded as a chameleon term that is widely used in contexts of ambition and admiration, but is also viewed as inherently slippery, imbued with ambitions for high status and exclusivity and over-regulation, and as a product of self-serving elitism. Teacher educators have not been immune to these slings and arrows; described by a UK Secretary of State as The *Enemies of Promise* [4] and subject to *political sticks, stones and ideology* in the US [5]. Ranged across the globe, each of these loaded invectives reflects politicians' attempts to create rhetorical spaces within which to articulate reform [6]. Driven by ideology, they provide space in which to challenge the academy and to broaden choice and competition by changing the locus of teacher education from universities to schools, a phenomenon which is nested within broader attempts to combat perceived credentialism and protectionism within the professions. Once so reformed, such systems are vigilantly evaluated and publicly compared and contrasted by a range of monitoring bureaucracies, including, for

example, the privately funded advocacy organisation, which has been operating across the United States. The National Council for Teacher Quality has been grading teacher education programmes from A to F.

The recognition that the logics of marketization and bureaucracy have impacted professionalism and indeed the emergence of AI as an additional threat, opens the way for an analysis of the place of teacher educators as professionals by applying Clarke's Place Model [7]. Clarke's Place Model outlines on two axes, the status (vertical axis) and the professional learning journey (horizontal axis) of professionals. The impact of marketization, bureaucracy and artificial intelligence (4th logic) are key features of the discussion and analysis surrounding the application of the Place Model to teacher educators where, in doing so, we have speculatively redeployed Doreen Massey's [8] notion of *Geographical Imagination* to reimagine the place of teacher educators.

2. Freidson's Other Logics, and AI

Freidson views professionalism as a third (and superior) logic, relative to world-views governed by either markets, where consumers are in control, or bureaucracy, where managers dominate. Before examining the distinctive place of teacher educators, it is useful to explore how each of Freidson's other two intertwined logics effect this. The impact of AI is as yet undeveloped, but looks set to intervene strongly in both teaching pupils in schools and in teacher education.

3. Markets

Marketization is based on ideologies of competition, deregulation, flexibility, choice and privatization. It prioritizes generating the profits which can enrich shareholders and can also be used to fund innovation, producing, polishing, advertising and selling a variety of reliable products at a reasonable cost to consumers. The impacts of markets of many kinds can be less than benign, not least because of the inherent tensions in casting learners as consumers and education as a commodity, which can be unproblematically bought and sold.

Freidson may not have even imagined the new level of power or the concomitant lowering of trust, as O'Neill [9] puts it, that the impact of markets on professionals' work has helped to bring about today. These are evident in both pervasive progress and widespread disruption. Giridharadas [10] describes the impact of disruptively rampant capitalism (Moneyworld) in creating a few large, rich and powerful global corporations, and in high levels of inequality (mapped vividly by Dorling) which mean that money can now wield a new Metapower, which can be both highly exclusive and very destructive, even whilst seeming to do good. The apparent benevolence of large-scale philanthropy allows the super-rich to intervene in the work of professionals, as Knox and Quirk said, to 'pay to play' unquestionably, despite their lack of expertise. If your teacher education system is funded by such people, then professionals may feel powerless to offer criticism. This level of trust-without-challenge was once given to the most powerful professionals too—the cardinals, judges and the professors of teacher education.

The latter have been identified by politicians as part of the problem of traditional teacher education systems, viewed as encouraging credentialism and offering theory-based, expensive and time consuming 'products'. In an effort to create the rhetorical space [6] for reform of these systems, teacher educators in Australia, the USA and England have borne 'the 101 damnations' [11] and the 'discourses of derision' [12]. Apple [13] highlighted the drive within the US at the beginning of the century to create a more uniform approach to what constitutes "good teaching", as part of a move to increase standards and levels of professionalism at a time when teacher education programmes were being ranked and having to compete with "each other for both funding and status". Fast forward to the modern era and the effects of marketization are deeply embedded in US teacher education. Cochran-Smith, Keefe and Carney [14] describe the entrepreneurial reform which has taken place in parts of the United States subsequent to the moving aside of traditional teacher education provision, within what they have termed nGSEs (new Graduate Schools of Education)—in which training (not 'education') courses are shorter, less expensive, more flexible and more practice-focused. Interestingly, the nGCSEs use characteristic university language (such as GSE and Dean) although

they are not affiliated to universities, and offer both initial teacher licensure and master's degrees [14]. They view their teacher education programmes as efficient producers of skilled and practically-focused teachers for inner-city schools where there are persistent teacher shortages. Skerrit [15] has analysed the impacts of neoliberalism on Irish teachers' traditional value systems as they migrate to teach in schools in England, where the values of the market are more in the ascendancy—the table (Figure 1) below sums up some of the tensions which the teachers strive to deal with in this new environment.

Teachers perceived that they need to be more …	As opposed to …
• Extrinsically motivated	• Altruistically motivated
• Cold	• Warm and caring
• Individualistic and self-oriented	• Selfless
• Competitive	• Collegial

Figure 1. Irish teachers' perceptions of working in schools in England (Skerrit 2018).

How does teacher education prepare student teachers for this new reality? At least teacher educators have had to become part of neoliberal universities, so they know from first-hand experience the realities of such tensions and the bureaucracy which upholds them—if teachers are increasingly like the street level bureaucrats described by Lipsky [16], what must their teacher education be like? Perhaps the answer must inevitably include not just the capacity to deliver the technicist curricula of such systems, but also the capacity to critique and move beyond such neoliberal framing of their professional work.

4. Bureaucracy—Metrics and Managerialism

In Freidson's second logic, bureaucracies have increasingly been put in place by governments and organizations wishing to enhance, assess, evaluate and monitor the work of employees and professionals, and, crucially, to manage them. Effective bureaucracy, at its best, can encourage and incentivise improvements and attempt to insist that general principles are predictably shared across society and made transparent through shared data league tables and inspection reports; providing data which can make it very clear whether trust is well founded or not. The latter is often more newsworthy and certainly has provided evidence for that most loaded of insults, "the enemies of promise" and also for market-driven interventions.

In an effort to improve, equalize and sustain standards, the most measurable features become the most important and most visible whilst the more complex, nuanced, immeasurable realities are less amenable to presentation in university league tables. Course directors will encourage participation by students who may well be informed that it would be in their own best interests to rate their courses highly—after all, who wants to be a graduate of a poorly rated course? It is hardly surprising then that professionals seek to avoid and undermine the scrutiny of this 'managerialism' [17]. Such subversion, bolstered by the marketisation of education for example, by viewing students as consumers, is all too obvious in pervasive grade inflation in university degree classifications. In recent years, universities in the UK have seen an increasing proportion of energies (staffing, funding) dedicated to marketing and providing evidence for the REF (Research Excellence Framework) and TEF (Teaching Excellence Framework)—which purport to measure research and teaching, respectively, and then allocate both public funding and increasingly complex league table positions based on these. At the level of the individual teacher educator, "performativity and conformity are more likely than dissent while enhancement of a sense of professional responsibility is rendered more difficult, marginalised if not entirely silenced" [18]. Menter [19] asserts that teacher education is a bell weather which is "deeply revealing of the currently dominant values of that society", a point which is well illustrated in the analysis of Cochran-Smith, Keefe and Carney [14] which contrasts entrepreneurial, managerial and democratic reforms in teacher education, describing the United States as a place where teachers are trained, commodified and deployed. A further consideration in

respect of the future of teacher educators must be the potential impact of artificial intelligence, the deployment of intelligent machines both in school classrooms and in the academy.

Artificial Intelligence: A Fourth Logic?

The English Oxford Living Dictionary proffers this definition of AI: *the theory and development of computer systems able to perform tasks normally requiring human intelligence.* https://en.oxforddictionaries.com/definition/artificial intelligence [20].

It is debatable whether AI continues a separate fourth logic, but here is one key reason for arguing that it should. It is increasingly becoming evident that AI can do more than simply replace and replicate existing roles. It is becoming ever clearer that it can behave in ways which are not fully amenable to human comprehension, ethics and control, that are a black box, and it is this new phenomenon that means that it may be best understood as a fourth logic, which will have huge impacts on the work of those professionals which it does not fully replace.

It is questionable whether teachers and/or teacher educators will ever be replaced by AI, but it has been suggested that AI could free up professionals to be more creative and more productive by augmenting, rather than eroding, expertise. On the other hand, the Susskinds [21] argue that the traditional professions will be dismantled, leaving most (but not all) professionals to be replaced by high-performing AI (and also by less expert people). AI forms the basis of personalised learning in several language learning Apps including the free, polyglot, personalised language behemoth, Duolingo https://www.duolingo.com/ [22] which has 300 million learners across the globe. AI's intervention in teaching and teacher education is already in the horizon in the form of personalised learning programs such as Summit Learning, which is funded by Mark Zuckerberg. Summit Learning is already to be found in 380 schools, involves 3800 educators, (largely as mentors and facilitators, rather than teachers) and more than 72,000 students across the United States, in schools from Kansas to Brooklyn where the laptop-based, one student with one computer, components of the program have not met with universal acclaim—bringing student strikes in Brooklyn schools, where students were most concerned that their teachers were not properly trained for the programme [23]. The Times [23] notes that Summit chose not to utilise the evaluation which they had commissioned from the Harvard Center for Education Policy Research. Is it far-fetched to ponder the potential to combine such classroom systems with facial recognition cameras placed around the school, wearable monitoring devices (such as Fitbits) and the ubiquity of social media to move towards an insidiously omnipresent form of surveillance capitalism [1]? Such a scenario brings together all of Freidson's logics (except professionalism?) in ways which have barely imaginable potential impacts for learners, schooling and teacher educators. Finally, one might consider the novelist Ian McEwan's [24] fictional robot, Adam, who ponders university education, considering it to be extraordinarily inefficient in comparison with the future potential of education … by download.

Freidson's logics have been used and extended to set the scene for the use of the Place Model to examine the place of teacher educators.

5. Components of the Place Model

The sub-heading of the Place Model (Figure 2 below) is important because it links professionals to their respective laities by asking the question: *Who is my professional today?* The Model provides a usefully challenging range of answers based on comparing the two conceptions of place noted above by Massey as a *Geographical Imagination* [8].

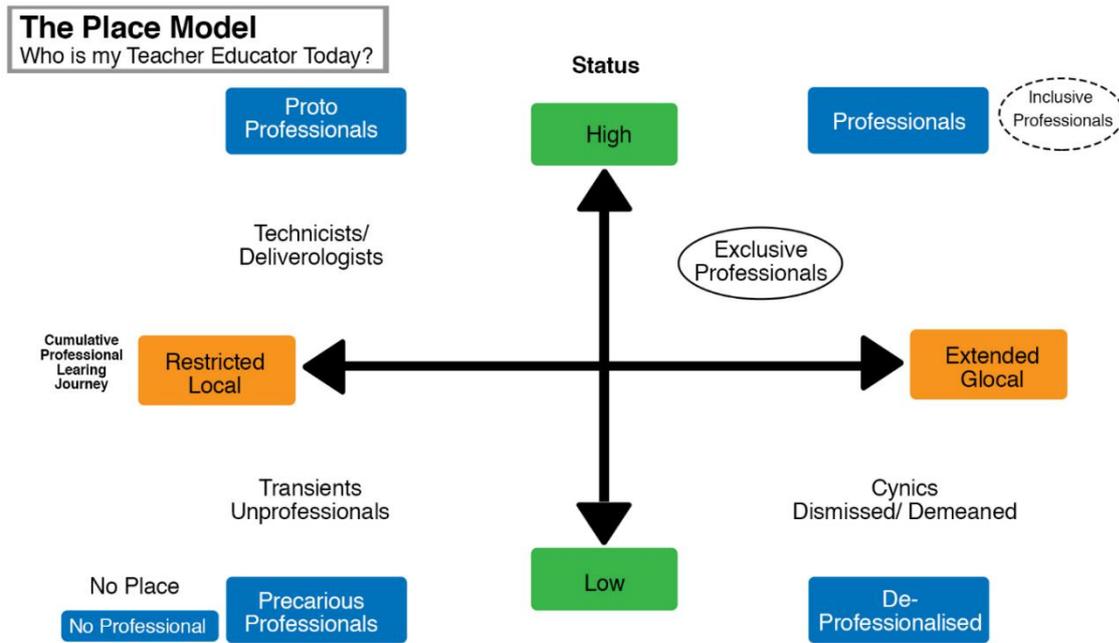**The Place Model**
Who is my Teacher Educator Today?

Figure 2. Clarke's Place Model (2016)

The horizontal 'axis' is based upon a cumulative, career-long, professional learning journey. On the diagram (Figure 2), this axis starts where a 'new' teacher educator takes up their first job, but one might imagine that, putatively, on the most extreme left (well off the edge of the diagram) is the position of a baby, an extreme example of an incipient learner in its utterly Piagetian, egocentric world view. To the extreme right is extirpation at the end of an extensive learning career (or series of careers), with an expansive global reach. However, this axis is *not* about terrestrial space—professional practice most often transpires locally and has local impacts, but the internet means that learning can readily become much more far reaching in both depth and breadth. In addition, the axis is *not* a timeline, *not* a history, and it is *not* a matter of passive survival for 30–40 years, gathering up a few tips and tricks about good practice on the way. Rather, the learning process is conceived as an expanding professional place, and, it must be stressed, *not* a space, using Tuan's [25] lucid formula: *Place = Space + Meaning.* The horizontal axis can be an extensive, complex and intricately featured place, built through cumulatively accreting processes of professional learning, an expanding horizon of Massey's *outwardlookingness* [8]. As for Fullan [26], "learning is the work". This place may be conceived on either personal or profession-wide scales—an individual's career or the systemic capacities for learning within a particular context, drawing on, and contributing to, a critical (and that criticality is a key feature of what university-based teacher education can offer) understanding of the best of what is known though the consumption of and/or the creation of relevant research. In this respect, the axis has particularly significant resonance with the early twenty-first century debates about professional status, regulation and marketization. Luke et al. [27] highlighted the increase in accountabilities and responsibilities that were creating the "privatization and marketization of all forms of education, including teacher education". They chose to conduct a broad focus of these issues across numerous countries and continents and found that education—and in particular teacher education—was impacted by market forces. For example, they found that in North America, the emergence of "high stakes" testing was influencing "teacher training, promotion and professional development" in what many considered to be a "politically divisive and educationally self-annulling situation" [27]. They also reported that in New Zealand, teacher training could now be conducted by "private, corporate service providers" [27]. Contemporary debates centre on the relative merits of, on the one hand, promoting a narrowly conceived technicist training approach which is linked to greater deregulation, flexibility and privatization (on the left-hand side of the axis), versus, on the other hand, the expansive professional education, predominantly within the master's-level courses within college and university systems across the globe. A key limitation of the Model is that the straight line of this

axis cannot convey the ways in which careers are becoming more varied and more fragmented—a sinuous, fragmented, rollercoaster of an axis might be more appropriate. Imagination is needed here to conjure the cumulative, career-long learning journey which the increasingly dynamic nature of work demands—is there an inherent incompatibility between these demands, and the deep expertise and constant trustworthiness which are essential to professions?

Whilst the integrity of the horizontal axis is increasingly questionable, the vertical axis is even less predictable, although esteem is of undeniable importance in all professions. Whilst it may be argued that it is important that professionals seek to exert their agency in respect of building their own learning trajectory, it is likely that they will have much less agency in respect of the vertical axis, which depends on the exigencies of public opinion of status. In consideration of the examples cited above from the US and New Zealand, as well as others from England, Sweden and China, Luke et al. [27] stated, "If we view teacher education globally, it is hardly business as usual … the position and status of teachers as intellectuals is at risk". This axis is *not* about remuneration, although this is often both an important component of status and a significant reflection of it, as is frequently evidenced in unionized pay disputes. The Place Model requires users to apply a subjective judgment of status, based on estimations of public perceptions of the esteem in which professionals (individually or collectively) are held, from low to high.

As Figure 2 illustrates, the intersection of the status and learning axes affords the creation of four quadrants which have been labelled as proto-professionals, precarious professionals, the de-professionalized and the professional. A fifth, equally important, element lies outside the axes, where the answer to the question 'Who is my professional today?' is 'No one'.

6. Populating the Place Model

Each of these components can be examined by populating the Place Model using the Living Graph technique developed by Leat [28]. Leat [28] developed this as a thinking skills exercise, whereby learners are helped to understand graphs by populating them with realistic exemplars and then, in groups, the learners arrange where best to position each example. These examples would allow the user (teacher educators) to consider how the Place Model can be used to map both career-long professional learning trajectories and to inform comparisons at individual and systemic levels. In consideration of a series of hypothetical professional examples, the following sections provide a tour of the Place Model. The tour begins by initiating the reader into the axis of the model, starting with the top left corner—the 'proto-professionals'—before making a detour to the off-axis 'no professional' component and then moving anticlockwise around each of the three remaining in-axis quadrants of the model, culminating in the 'professionals' quadrant. In designing the Model, it has become evident that these components are neither positive nor neutral, that they are mostly dystopian, but, importantly, that there is still, perhaps, a positive place for the trustworthy expert.

7. Proto Professionals

Proto professional teacher educators are those who are relatively new to the profession. In universities' Graduate Schools of Education, these typically are former teachers, often appointed for their reputation as excellent heads of deportment in schools. Typically, the transition from teacher to academic is not easy. There is often too little induction of neophytes [29], who find themselves dealing with a confounding admixture of multiple new demands and impostor syndrome. In university schools of education, the choice between appointing staff who have credibility and experience in schools, but no research background, and those who have researched and published, can bring headaches for Heads of School, keeping inspectors happy on one hand and university research directors preparing for REF submissions on the other. For the former and for the increasing prevalent school-based teacher educators, it can be all too tempting to focus on the practicalities of survival in the classroom, to focus on training rather than education—a distinction which has increasing relevance in the ideological 'wars' fought in recent years in the United Kingdom (UK), which reflect those in the United States (US): greater deregulation and privatization versus investing in strengthening the dominant college and university system of teacher education [30].

The most egregious example of 'training', as opposed to 'education', is perhaps those teachers who are being trained to carry and use concealed weapons in US schools, something which is supported by President Trump. A recent Channel 4 documentary, 'Teachers Training to Kill' [31] explored this issue and showed teachers being trained by a volunteer organization which was allegedly linked to the NRA (National Rifle Association). The teachers explained that they were doing this out of love for their pupils, who came from deprived urban areas and for whom these teachers also bought both clothes and food as the need arose. On the face of it, this seems commendable, but the fact that that their response is to go to the 'market' to obtain goods for their pupils rather than protesting the inequity that leads to large scale inner-city poverty, perhaps reflects their wider teacher training, rather than education. Teachers who subvert bureaucracy for their students, by giving undue help with coursework/exams (see 'unprofessionals'), might be seen as a more extreme case of this—in this case, relying on subverting bureaucracy. A professional alternative, which might be a product of a critical professional education, is that teachers would instead seek to combat the systems which produce inequality, poverty and powerlessness for their pupils and hinder their chances of accessing the most elite professions.

8. No Professionals

It must be noted that there is not a national—much less European or internationally agreed—set of qualifications which are required to become a teacher or, indeed, a teacher educator. The recent introduction of deregulated market forces has diversified the latter in the USA, England and some parts of Australia, which have each seen a remarkable increase in the variety of routes into teaching.

There is a real shortage of both teachers and teacher educators in less economically developed countries, but here academics are less able to travel and are more endangered. Across the globe, there is an almost insatiable demand for teachers [32] and some 57 million primary-level learners are not being taught by a teacher. As noted by Clarke [33] "this deficit is all too rarely discussed by professional bodies in the more economically developed countries or by mainstream teacher education researchers and the iniquitous global teacher shortage is, thus, the elephant in the model".

In addition, there are parts of the curriculum for which teachers are not prepared—as is often the case when curricula are changed and teacher education must play catch-up—for example, in the introduction of Citizenship Education in countries across the globe in recent years. A more long-standing case in point is the Sign Language in Ireland. There was no teacher education for this unique version of sign language, which had developed from a uniquely gender-segregated bifurcation (imposed by Catholic priests and nuns to keep deaf children in gender segregated Schools for the Deaf in Dublin from meeting, marrying and reproducing). Gendered versions of Irish Sign Language developed and are apparent in older deaf People and it is only in September 2019 that Dublin City University will introduce the first specialist teacher education for ISL. https://www.dcu.ie/courses/Undergraduate/institute_of_education/Bachelor-of-Education-Irish-Sign-Language-Restricted [34].

9. Precarious Professionals

Two contrasting types of teacher educators are to be found in this part of the model; those who have short, broken, temporary careers on short term part-time contracts and the unprofessionals for whom the ethical dimensions of professionalism are lacking.

9.1. Transient Professionals

The transience of teacher educators is reflective of a wider university system where short-term, part-time contracts are becoming the norm. Abbas and McClean [35] argue that the increase in short-term contracts for academia work is in direct response to 'government-imposed funding restrictions and to the changing and intensifying demands on full-time academics'. Beck and Kosnik [36] point to the increased numbers of contract staff working in initial teacher education, whilst Furlong et al. [37] highlight the case of a particular pre-service secondary school programme where the number of

permanent staff in 1992 was 14, but by 1995 was reduced to nine, "despite an increase of 20% in enrolment" [36]. Finance is often the main reason why many Universities decide to appoint contract staff in initial teacher education courses, with another being the need to have a certain number of contract staff who are currently teaching in schools or who have very recent experience; as this can ensure those involved have up-to-date, relevant knowledge of the school system [36]. Slick [38] points to problems that can often arise when courses depend on a significant number of contract staff, in that they often lack the authority and/or do not possess the required knowledge of the University programme that would permit them to conduct appropriate supervision. Whilst Casey and Howson [39] argue that such problems can be overcome when there is increased dialogue between teacher educators and contract staff, there are others who argue that university teacher educators must be heavily involved in school practicum supervision of students, allowing them to support students in their development [29,36,40]. Within the United Kingdom, the approach has always been to integrate the University programme and the school-based practicum, with permanent teacher educators fully involved in school-based supervision of pre-service teachers. Owing to the increased numbers of contract staff, referred to above, there has been an emphasis on ensuring that they are involved in both university-based course instruction and supervision of practice, thus mirroring the practice of permanent university staff [36]. However, many university teacher educators have other roles and responsibilities outside of their initial teacher education duties, such as research, programme development and administration. Therefore, as the number of permanent university teacher educators continues to decline, it is proving very difficult for them to have a significant supervision presence during school-based practicum [37]. Abbas and McClean [35] argue that "little is known about the effect of casualisation on the quality of teaching", however Metcalf et al. [41] emphasize that those on short-term or part-time contracts are likely to experience a reduction in their levels of satisfaction. If we are to accept that the university-based programme and the school-based practicum should be integrated, meaning those permanent teacher educators who address theoretical and practical approaches to pedagogy in university are fully involved in supervising school-based practicum, how can this be achievable when "only a very small proportion of the staff are permanent academics with a career commitment to formal theory development"? [36]. It would seem that, if such an approach were to continue, it is likely to have negative implications for the quality of programme delivery and ultimately negatively impact the quality of teachers that such courses produce.

9.2. The Unprofessionals

Swennen et al. [42] recognise the important tole of teacher education in the preparation of future teachers, but are quick to emphasize that there is a "limited body of knowledge about teacher educators", a view supported by Vanassche and Kelchtermans [43]. Zeichner [44] believes that this lack of research focus on teacher educators can be partly explained by the assumption that "educating teachers is something that does not require any additional preparation". Wilkinson [45] believes that the teaching profession has failed to "unite any agreed set of transcendental values which it might serve" and believes it is the responsibility of teacher educators to develop a clear set of ethical values that will help to protect teachers' professional identities. Shortt et al. [46], in referring to the creation of the General Teaching Council for England's code of conduct and Practice for Registered Teachers, highlight government claims that the code did not fulfil its function of preventing unsuitable teachers from entering the profession [47], a view also supported by the teaching unions [48,49]. Shortt et al. [46] see the GTCE's rapid decline as being "symptomatic of a deeper cause: society's inability to work out for itself the desired relationship between its children, its Government and its teachers". Osborn [50] points to similar debates and struggles across Europe, where more and more countries began to respond to article 126 of the Maastricht Treaty which asked for "more cooperation between member states and their national education systems" [46]. Van Nuland [51] points to practice beyond Europe in New Zealand and Australia, where codes of professional ethics are the norm rather than a code of practice, and that these educational authorities appear to have created a "philosophical coherence between teachers, society and the state" [46]. It would therefore appear that there is a lack of

consistency across various jurisdictions in relation to the ethics associated with teacher professionalism [52], which is likely to have resulted in different approaches from teacher educators when it comes to teaching and modelling ethical practice. Swennen et al. [42] emphasize that teacher educators agree that they should be positive role models for students, but point to evidence from Wubbels, Korthagen and Broekman [53] where student teachers did not learn very much from the model behaviour of teacher educators because they did not see the behaviour as being something they should desire to replicate.

10. Deprofessionalised

Initially, relative to the well-charted other parts of the Model, this seems to be akin to the part of the medieval map where the cartographer's knowledge was scant. … and they wrote 'here be dragons'. Here is the place of those with long educational journeys applying knowledge garnered over the years from across the globe to their local contexts, yet poorly esteemed. Livingston [54] argues that neither the knowledge base nor the status of teacher educators is well-established and that they may be viewed as hidden or unrecognised professionals, whose work is important and complex (encompassing policy, practice and research), but is often invisible [55]. Yet this area may be quite readily populated by at least three quite disparate groups, each with varying degrees of agency—the cynics, the disparaged and also increasing numbers of migrants and refugees.

Universities seem some days to be packed full of cynics … and there may be more of these in an age when retirement age is extending … disappearing … imagine observing your student teacher teaching 10Z on a Friday afternoon … and you're 75. It is all too easy to slide into cynicism, but informed skepticism is useful—this Model is part of the authors' journeys as informed skeptics. The second group of inhabitants have been noted in the introduction—those teacher educators who have been dismissed by politicians as noted earlier in England, Australia and the USA. Thirdly, there is a group of increasing size; migrants and refugees whose qualifications and experience are not recognized in a new country, even where an influx of migrants may mean that there is increasing demand for their expertise. The British Council is providing advice for this very scenario. https://www.teachingenglish.org.uk/article/developing-teachers-refugees [56].

11. Professionals, Exclusive and Inclusive

The most highly-esteemed, most trustworthy and expert teacher educators fill this important category. International heroes of teacher education may be known only to teacher educators, but they do play import roles as champions of the profession. The singular importance of such teacher educators is thus aptly summed up by Czerniawski [57] *as weapons of mass instruction*. It might be argued that it is only university-based teacher educators who can have time and space to develop their breadth and depth of knowledge (to conduct research, to complete PhDs etc.), but it is also possible that these are, relative to school-based teacher educators, more likely to be exclusive professionals—the inhabitants of yet another (sixth) dystopia. Access to postgraduate qualifications is not supported by widening access policies, meaning that the teacher educator profession almost exclusively comprises of individuals who progressed through the traditional route of Bachelor of Education or subject degree followed by PGCE, which in either case will have been followed by at the very least a Master's degree. Galman et al. [58] point to the lack of diversity that exists amongst teacher educators, who as a group are considered to be "predominantly white, middle class" females whose practices are heavily influenced by their notions of gender and power [59,60] and whose programmes tend to produce a "predominantly white, middle class teaching force" [58]. There have been many calls for such programmes to address this issue since these teachers will be working with an increasingly diverse population of pupils [61,62,63,64].

Like other exclusive professions, the most senior teacher educators may find that their roles are in danger of replacement by AI although this is difficult to predict. The recent Office for national Stats survey (see figure 3 below) suggests that both teachers and teacher educators in the UK are relatively secure form this threat. https://www.google.co.uk/search?q=jobs+at+risk+from+automation+office+for+national+statistics&s

ource=lnms&tbm=isch&sa=X&ved=0ahUKEwi9ibqck7zjAhUholwKHZzTB2YQ_AUIESgC&biw=13
66&bih=657#imgrc=9eIWllUqecvOlM: [65].

Jobs at risk from automation
Highest and lowest probability

Waiters	73%
Shelf fillers	72%
Elementary sales occupations	71%
Bar staff	71%
Kitchen and catering assistants	69%
Dental practitioners	21%
Secondary school teachers	21%
Senior professionals in education	21%
Higher education teachers	20%
Medical practitioners	18%

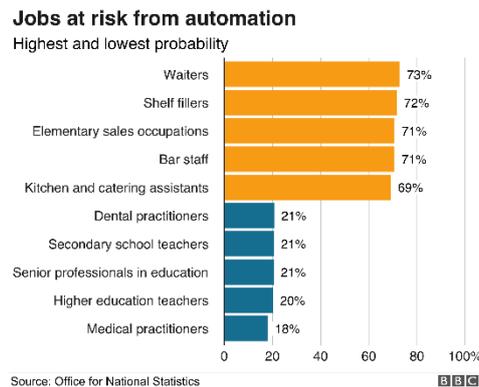Source: Office for National Statistics   BBC

Figure 3. Jobs at risk of automation.

However, it may be that teacher educators' roles are most threatened by AI only by proxy, because teachers are, in future, replaced or downgraded to diminished local roles as facilitators, coaches and mentors as discussed earlier.

The Place Model offers one further location for teacher educators in the form of the logical antithesis of exclusive professionals, inclusive professionals. However, it may be that this very notion is no more than an oxymoron—after all exclusivity (and the esteem and concomitantly inflated wages it can produce) may be inherent in the very notion of professions. Alternatively, we might consider that teacher educators have a singular claim to inclusive professionalism. As teacher education becomes more diverse in nature and location, it is increasingly important to recognize that the place of teacher educators is intimately bound to that of the teaching profession, a group that Rutherford [66] is referring to when he argues that *only humans teach*. Of course, human teaching occurs in a huge variety of contexts but the formalized, state provided, often mandatory teaching of other humans happens in schools and most of that learning happens though the aegis of teachers. A salient corollary of this is the unique positioning of teacher educators as those who teach teachers to teach and considering that their potential tutees include all of humanity, teacher educators might possibly be the ultimate inclusive professionals.

Less idealistically, there are a range of possibilities:

- Cochran-Smith points out their role in challenging systemic inequality as reformers [14] proffering a range of examples which include new programs with democratic goals and deans' organizations focused on equity and justice;
- Inclusive teacher education might be usefully augmented (but not replaced) by AI. Korthagen's [67] CPD 3.0 emphasizes the human qualities of teachers and indeed President Obama interviewed by Wired Magazine https://www.wired.com/2016/10/president-obama-mit-joi-ito-interview/ [68] argues that in the age of AI; it will be possible to invert the totem pole of esteem; because the most human of professions (teachers and nurses, for example) will be most highly esteemed even as other roles will be automated.
- If inclusivity were to increase amongst teacher educators, then those individuals who aspire to be teacher educators would require more support from their government in terms of accessing education at postgraduate and doctorate levels. Such support is likely to be in the form of providing adequate time and finance to allow such individuals the opportunity to study for a Master's degree; or indeed a PhD. Therefore, aspiring teacher educators who have a B.Ed. or PGCE do not have the sufficient qualifications that would permit them to join this version of the Place Model at all, except in the (admittedly overcrowded, on a global scale) 'no teacher educators' category.

12. Conclusions

This paper has used the interdisciplinary Place Model to probe the notion of professionalism as applied to teacher educators and has found several dystopias which are being created by pressures from other logics, particularly that of marketisation (which is developing and sustaining innovation, but also creating rampant inequalities) and bureaucracy, with its all-pervasive oversight and comparative, evidentiary metrics but also their fabricated, performative subversions. The paper also finds a place to begin to examine the growth of classroom learning, which is underpinned by powerful AI, funded by billionaire philanthropists and may well be developing without the involvement of teacher educators, indeed blindsiding and bypassing the increasingly busy teacher educators in schools and universities. Inclusive teacher education may be an unachievable ideal, but there is arguably a need to invest more in a comprehensive, coherent and relevant strategy for teacher educators' induction and career-long professional learning, taking into account policy, practice and research perspectives and allowing more room for the human qualities of care and creativity.

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