The professionalism of the Higher Education teacher; what's ICT got to do with it?

Abstract

HE professionals generally work in an ICT rich environment. There are expectations that the existence of ICT benefits them, their students and the overall learning environment. This paper investigates and debates the complex interplay between two aspects of HE that have witnessed rapid change: the HE teacher's professional role and the use of ICTs for teaching and learning. This paper reviews writing, research and theory in these areas and draws out key themes. A Masters course run at the Institute of Education, University of London is used as a practical context to evaluate aspects of this debate and assess their contemporary relevance. It establishes the importance of professional learning communities that include ICT 'enthusiasts' and an integrated pedagogic approach to ICTs. The paper suggests these factors can be key in enhancing the capacity of the HE teacher to engage positively, collaboratively and critically with the growth of learning technologies.

Introduction

This paper investigates the impacts of Information and Communication Technologies (ICTs) on the professionalism of teachers in Higher Education (HE). By using my experience of working in teacher education as well as drawing upon research and writing about the changing nature of professionalism and HE, it seeks to identify the key issues and drivers currently at play in this area and assess the significance for the HE professional.

I believe using life histories (Goodson and Sikes, 2001) and critical incidents (Tripp, 1993) have considerable potential in making sense of one's development as a professional and as a reflexive thinker. My career in education (of over 20 years) has always involved a significant amount of teaching and using of ICT. As a classroom teacher in ICT rooms alongside my students I experienced the frustrations and the benefits of using new and changing technologies. More recently (late 1990s onwards) as an initial teacher educator on PGCE courses, I have taken responsibility for many of the ICT aspects of these courses including mediating the requirements of the *TTA standards* (1998) into (what the teaching team considered) useful professional practice. I have more recently worked as a tutor since its inception in 2001 on the Master of Teaching (MTeach) course, which runs at the Institute of Education, University of London. This course is mixed mode in the sense that both face-to-face (f2f) sessions and e-learning are used. This course was designed to use learning technologies in an integrated way, rather than being 'converted' to e-learning like many HE courses have in attempts to broaden their market and appeal.

The impact on ICTs on the professionalism of HE teachers needs setting in a wider context than one individual's experience. It is important to recognise the interplay between the changing nature of both the technology and environment in which it operates. There is no doubt that over the last 15 years there has been a phenomenal growth in ICTs in all aspects of society and education is no exception. My interest stems from my long-term experience of using ICTs in education in different ways, for different purposes, at a variety of levels. Despite the passage of time and the variety of my experience, common themes do emerge (such as ICT anxiety) that are significant in terms of both professional identity and on the impact of ICT on pedagogy.

The other area I want to focus on as part of this paper is that of teamwork or the development of professional learning communities. Throughout my educational career the teams I have worked in, have in my opinion, been key to the success (or not) of achieving course/educational aims in the broadest sense, rather than a narrow perspective of students achieving specified learning outcomes. I feel these learning communities have been what have enabled us as educational professionals to work positively and developmentally. These professional communities have allowed a sense of belonging and confidence in shared decision making when (often) external factors have seemed to be working against us (such as imposed course and curriculum structures, reduced funding, short-term insecure contracts, worsening conditions of service). As Sachs (2001: 154) suggests drawing on Wenger (1998: 149) in her discussion on professional identities. Teaching and learning communities are vital in re-conceptualising common professional identities, which I would argue is even more important at times of rapid change and uncertainty. In this paper I want to reflect and analyse on how such communities of professional practice are formed and developed but with a focus on the role that ICTs might play in this process.

Thus my rationale for focussing on the changing nature of professionalism within a seemingly exponentially ICT rich HE is that HE professionals are situated in a changing socio-economic-political-cultural and technological climate. I want to attempt to establish what the main professional and pedagogic implications of this are.

Structure of the paper

The main body of this paper is divided into 3 sections: Firstly there is an overview and debate on the changing nature of professionalism in society. This looks at a variety of viewpoints and tries to establish current issues and useful models for examining the changing nature of the work of HE professionals. The second section concentrates on the use of ICTs in HE identifying key professional and pedagogic issues of relevance to this study. Thirdly, there is a focus on the MTeach course, this section provides an example to discuss the issues raised in the context of current practice. To conclude I will attempt to draw out the key issues and suggest ways forward for future consideration and potential research which are especially important and pertinent given the ubiquitousness of ICTs as a 'solution' in education.

The Changing nature of Professionalism

What seems to be clear is that professions are under attack from several quarters including most recognisably the government and the public. It is clear that even the more established professions such as Law and Medicine are increasingly regulated and controlled but at the same time expected to embrace the culture of the marketplace. Onora O'Neill in the 2002 Reith Lectures titled 'A Question of Trust' (O'Neill 2002: 4) devotes one lecture to the 'crisis of trust' facing many in the professions (especially the public sector). O'Neill identifies a growing culture of mistrust and suspicion but this is set within expanded expectations of service.

> 'In the New World of accountability, conscientious professionals often find that the public claim to mistrust them-but the public still demand their services.'

O'Neill argues against the massive rise in the regulations and controls put upon the professions. The plethora of; rules, targets, audits, accountability requirements, performance management and quality assurance requirements are discussed and she goes on to identify (with numerous examples) how they actually work against the real purpose of the professions. Moreover they often work at cross-purposes with each other.

> 'Incompatible or barely compatible requirements invite compromises and evasions; they undermine both professional judgement and institutional autonomy.' (ibid, 4)

Some of the issues and thoughts highlighted by O'Neill have interesting connections with work by Giddens (1994: 83) cited by Kenway and Bullen (2000) on a 'post-traditional order'

where traditions are forced into the open and 'called to account'. David Halpin in his keynote lecture at the Institute of Education 'Professionalism in an age of uncertainty' (2004) refers to work by Giddens (1999), Kenway and Bullen (2000) and Stronach et al (2002). He shared with the audience his thoughts on post-traditional and globalised societies. One factor thought to be of significant importance was the massive growth in ICTs both for use in a personal and professional way. The growth and impact of ICT on working lives is a key strand that was raised in the introduction and will be looked at later in a specific professional context. However Kenway and Bullen (2000) in their paper illustrate how Giddens (1984) goes much further than this by suggesting more fundamental changes in the way society operates. There are key aspects of his thoughts that link with professionalism and the focus of this paper. Firstly that there has been a reorganisation of time and space caused by both technological and economic change which in turn impacts on global and local relationships. For instance that we can know more about what is happening in other countries than what is happening in our local (or professional) community. He also introduces the concept of reflexivity where people and institutions are shaped by ever changing structures of knowledge. Professionals are making multiple and complex decisions within this environment of changing (and uncertain) knowledge structures, which can lead to doubt and a potential lack of ontological security. Giddens argues that trust and ontological security need to be developed in times of change and uncertainty. I feel this is of crucial importance in contemporary HE where all the factors raised above are at play. A professional learning community perhaps more than individuals has the potential develop an ontological security. For instance they can mediate and question the latest initiatives or potential of new technologies within their shared underlying theoretical perspectives and stances.

Louise Morley (1999) in her research and writing concentrates on investigating the changing nature of HE. She identifies and analyses in much more depth many of the accountability issues raised by O'Neill in her Reith Lectures (2002). Morley's work illustrates the extent to which marketisation and new managerialism has taken hold in HE and the impact it has had on professional cultures, identities and workloads. I want to start to explore this by looking at key issues and comparing and contrasting experience and practice. In my view fostering learning communities can be a positive way of countering some of negative impacts of the regimes and systems that seem to dominate contemporary HE. They have the potential to encourage teamwork, democratic discourse, creativity and trust.

Geoff Whitty in his recent paper on teacher professionalism (2002: 11) asks what type of teacher professionalism is appropriate for 'new times'. Through his sociological perspective on teacher professionalism (2002: 7) he utilizes Eric Hoyle's (1974: 15) distinction between 'professionalism', "those strategies and rhetorics employed by members of an occupation in seeking to improve status, salary and conditions", and 'professionality', the "knowledge, skills and procedures employed by teachers in the process of teaching". Furthermore, he notes Hoyle's distinction between 'restricted' and 'extended' notions of teacher professionality. These concepts of restricted and extended professionality although very useful lack an emphasis (although it is somewhat implicit in the *extended professionality* concept) on what I have referred to earlier as learning communities. The importance of this collaborative aspect of professionalism is emphasised by Friedson (2001) who refers to 'disciplines' (Foucalt, 1979) and 'epistemic communities' (Holzner 1968). He differentiates between professional formal knowledge (created, preserved, transmitted and revised by such communities) and working knowledge (knowledge to do the job). Sachs also identifies the importance of communities of practice developing from 'democratic discourses'. Her observations that:

> 'Within these communities there are various levels and degrees of expertise that should be seen as a set of professional resources.' (Sachs 2001: 158)

and Wenger's argument that:

> 'as a locus of engagement in action, interpersonal relations, shared knowledge, and negotiation of enterprises such communities hold the key to real transformation'(Wenger 1998: 85)

resonate strongly with my experiences of working in course teams including the MTeach where a variety of ICT skills and knowledge exist.

It is useful to have a conceptual framework that overviews both traditional and post-traditional notions of professionalism. Concurring with Whitty (2002: 23-5) I believe that the future lies in democratic and discursive, i.e. collaborative, notions of professionalism. In a recent paper emanating from the medical world, the new model of professionalism is aptly described as 'involved professionalism' (Boyask et al 2004). Table I below illustrates this by comparing the model of involved professionalism with the traditional and market (new) models and stresses the importance of the 'sociality' of decision making, knowledge and

learning. This is an important recognition of the contribution that social constructivists (such as Vygotsky and Bruner) make to learning theory and knowledge construction. I would also suggest that in the (current) environment of rapid change and uncertainty the model allows professional activity, which fosters ontological security and trust identified by Giddens as crucially important. It is this notion of 'involvedness' in professional teams and activities through inquiry as a pre-requisite that makes this model appealing in the context of the discussion in this paper.

	Traditional Professionalism	**New Professionalism**	**Involved Professionalism**
View of Learning	Learning is an individual process	Learning is an individual process	Learning is a social process
Professional Activity	Decision making about the nature of professional activity belongs in the hands of professionals	Professional activity needs to be organized by professional managers	Professional activity is a set of relationships between self (professionals) and others (other stakeholders) and the products of professional practice (i.e., research/theory). This makes up the context of professional practice.
Quality measures	Quality is determined by professional knowledge.	Competency can be measured through performance criteria	Quality through professional development by intentional engagement and dialogue with the social, historical and ethical context of professional practice.
Organization	Professions organized according to their own disciplinary structures	Increased specialization and fragmentation sees professions organized by generic structures	Professions organized according to their own disciplinary structures, however open to influence from stakeholders and through dialog with related disciplines.

Table I: Characteristics of Different Models of Professionalism

Information and Communication Technologies (ICTs) in Higher Education (HE)

As raised in earlier parts of this paper there is no question about the growth of ICTs in society in the recent past. By the second half of the 1990s the 'C' was added (by educationalists) to the 'IT' acronym to be inclusive of the growing importance of the communication aspect of this technology. This communications revolution was lead by the development of the Internet, which provided a platform for email, closely followed by mobile technologies. These systems

have continued to develop, get faster, get cheaper, become more user-friendly and be exploited by all sectors of society and the economy. This section of my paper wants to look at how these technologies have influenced (or not) HE professional practice, and discuss issues around some of the 'drivers' of this. Also it seeks to identify key 'ICT' issues regarding pedagogy and professional learning communities.

Technologies in education have often been seen and used as providing the answers to all our educational problems. ICT is no exception often being promoted by politicians (and sold by retailers/software manufacturers) as the solution to efficient learning. What is often neglected in this debate is the recognition that it is not the availability of the technology, which is important, but how it is used. Mishra and Koehler (2006: 3) introduce their paper on Technological Pedagogical Content Knowledge with this very issue.

> 'Part of the problem, we argue, has been a tendency to only look at the technology and not how it is used. Merely introducing technology to the educational process is not enough……. However, it is becoming increasingly clear that our primary focus should be on studying how the technology is used' (Mishra and Koehler 2006: 3)

These are very valid points about ICT in education generally but what of HE, how can we differentiate this from the schools sector? I think there are clear differences, which can broadly be looked at in terms of their markets and market pressures. Schools require compulsory attendance by students, which are more or less fixed in number year on year. The potential for ICTs and e-learning to expand the number of school students to recoup more funding is limited. However HE has much more flexibility in terms of numbers and modes of delivery. It has the potential to expand courses quite rapidly; it uses far more part-time, short-term staff contracts. The increased use of ICTs especially in creating and developing more on-line courses can mean the increase of student numbers in line with government targets and expansion of the overseas market. Given the current funding shortfalls in HE certainly in the UK, pressure to develop such courses is highly likely. There has also been a view critiqued by Seale et al (2003: 2) that life with technology is 'rosy' that it acts as a change agent 'pulling academics along in pursuit of improving their practice' that technology plus students equals progress. This is what we have seen in contemporary HE, an expansion of modes and methods of delivery, but what about the design and pedagogies involved? and what of the education professionals that are expected to run such courses? Diana Laurillard in

the preface to her book on the effective use of learning technologies in University teaching makes this point exactly.

> 'The Web has become established, interface design has matured, and PC access has become widespread. The demands of technological change have hindered the theory and practice of its application, however. Learning technologies are unfamiliar and complex. Few of the current generations of academics have ever learned through technology, so practice develops slowly and theory hardly at all. (Laurillard, 2002: preface)

Laurillard makes important points here about the lack of conceptual frameworks and the variability of academics engagement with ICTs, which reduce the potential pedagogic gains they might offer. I attempt to elaborate and unpick these points in the following section of this paper by using two main sources; Seale et al (2003) whose book investigates learning technologies in post-school education and a paper by Mishra and Koehler (2005) which outlines a conceptual model for analysing pedagogic practice that include ICTs. A key point is the fact that the technologies change rapidly compared with previous educational technologies (such as the overhead projector). This has multiple consequences: teachers do not have time to learn from experience and have difficulty keeping up to date and they may feel reluctant to invest time and effort with the latest technologies. This continual change may lead to 'ICT alienation and anxiety' by some teachers. Given the use of part time staff and short-term contracts prevalent in much of HE, these staff could be more likely to be 'ICT marginalised' in their working environments. This in some ways replicates the more generic 'ICT rich' and 'ICT poor' debate where social disadvantage is potentially increased by ICTs. In the HE context it could be seen as leading to professional disadvantage. Also continual change does not provide stability for research of practice, which has tended to be limited. Martin Oliver argues:

> 'Learning technology often seems an amnesiac field, reluctant to cite anything 'out of date'' (Oliver, 2003: 148)

Oliver also notes this is exacerbated because much of the funding for research and developments projects centred on ICTs are short term and 'expects' positive outcomes. This very much strikes a chord with some of the findings of Morley's work on the changing nature of HE where short-termism and a lack of criticality are the order of the day. (Morley, 1999)

A second key area of debate is the tension between technology and pedagogy. Most software used is designed for commercial rather than educational use. The danger is that technology drives the pedagogy and that it encourages a 'transmission' approach whether this is via presentation packages or within a virtual learning environment (VLE). Wilson refers to 'pedagogic poor' applications of technology.

> 'I groan at the thought of students faced with death by PowerPoint both in the lecture theatre and now in the VLE' (Wilson, 2003: 73)

In an increasingly market driven and new managerialist HE, Conole warns of management decisions being taken with negative impacts on pedagogy.

> '…buying a VLE to support learning activities and then decreeing that all courses must use the system without considering whether or not this might be pedagogically appropriate' (Conole, 2003: 142)

I agree that we must be wary of not letting the technologies restrict whatever models of pedagogy that teachers and course teams feel are appropriate. An important professional role that Seale et al identify is the 'individual enthusiasts' who are knowledgeable in terms of using ICTs in a pedagogically appropriate way. In the past perhaps these 'enthusiasts' operated individually, but now need to become more integrated into their course teams and professional learning communities. Not all of the staff involved in designing and running courses will necessarily be ICT enthusiasts. Some of the members of the course team will be experts on pedagogy or a particular subject area and may well be ICT anxious. The role of the enthusiast in designing, developing and running courses in HE that utilise technologies and particularly if they use distance e-learning as part the course will be crucial. They will be there to mediate as such the potential of the technologies with the desired pedagogies. Hopefully they will be able to reduce anxieties and allow the development of confidence within the learning community with the technologies being used.

One of the concerns often raised by learning technologists is the lack of development of a research, writing and pedagogic frameworks for the community. Martin Oliver suggests there is a consensual view but this is has not yet developed into a theoretical position.

> 'Generally, learning technologists just do not believe the 'default', transmissive model of education ……They believe that learning arises from thoughtful experimentation (experimental learning), from questioning (critical thinking), from the intertwining of practice and reification, debated

> with peers (communities of practice). By deeming transmissive e-learning to be 'of questionable value', we have taken a theoretical stand- but are we, individually and collectively, aware of what stand we have taken. (Oliver, 2003: 154)

Possibly we could argue that learning technologists feel ontologically insecure, which would hardly be surprising given the relative newness, as well as the phenomenal change and growth of ICTs. However this lack of developed theoretical positions raised by Oliver (and earlier by Laurillard) has potentially negative consequences for the advancement of useful research and practice for ICT in education.

For the purposes of this paper I think it is very useful to introduce current work by Mishra and Koehler. They have designed a framework to address some of the shortfalls in analysing the role of ICTs in education, which they have named Technological Pedagogical Content Knowledge (TPCK). I would argue that it also creates a potential model for HE professionals to consider when developing existing and future courses. They have used Shulmans (1986: 9) idea of Pedagogic Content Knowledge. Put simply this is the knowledge overlap in education between subject knowledge and knowledge of appropriate pedagogy. The argument is that teachers, to be effective, need to know not only about the subject matter and about how to teach, but they need to understand appropriate pedagogies for that particular subject, topic, or concept. Mishra and Koehler have introduced Technology Knowledge, which is knowledge about the technology and how to use it. Below in Figure 1 is a diagram from their paper.

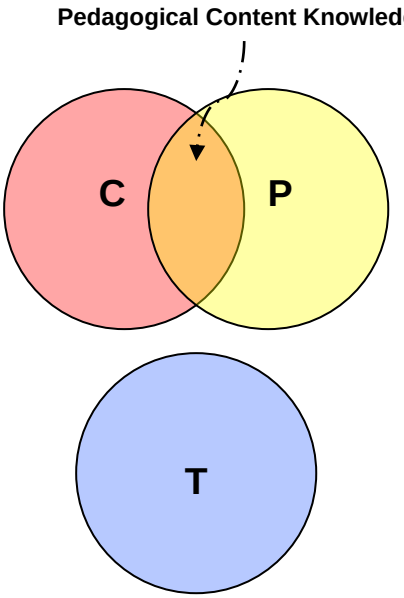

Figure 1: *The three circles represent Pedagogy, Content and Technology knowledge. Content and Pedagogy overlap to form Pedagogical Content Knowledge while Technology is seen as being a separate and independent knowledge domain.*

Mishra and Koehler (2006: 10) propose that Figure 1 represents what generally happens in both educational practice and debate about the use of technologies. That technologies are seen and treated as separate from content and pedagogy. (e.g. one attends a course to learn to use PowerPoint without any real thought of the pedagogy behind it and the subject content you might teaching). They argue that this is not a useful way of treating learning technologies and the relationships are 'complex and nuanced' and that technologies may actually constrain content. They suggest that technology knowledge needs to overlap as shown in figure 2 below.

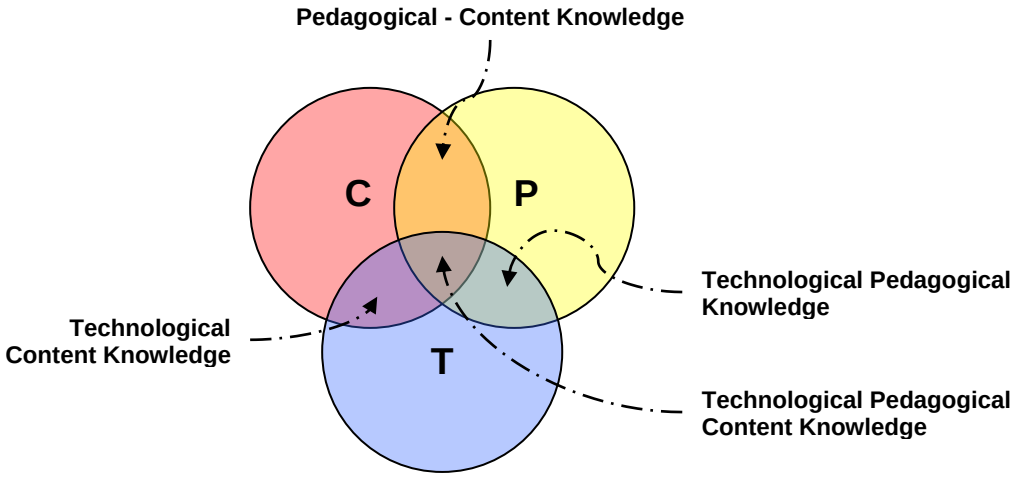

Figure 2. *Pedagogical Technological Content Knowledge. The three circles Content, Pedagogy and Technology overlap to lead to four more kinds of inter-related knowledge.*

This framework allows a much better model for analysing as well as designing resources, methods, structures and desired outcomes, especially where ICTs are an integral or growing part of a course. Rather than perhaps seeing technology as a welcome but separate bonus the model highlights the complex interplay between the different types of knowledge.

The Master of Teaching course

In this paper I want to use this course as an example to try and make sense of the interplay between the changing technologies and the changing nature of HE professional life discussed above. To illustrate how professional and pedagogical issues are paramount to the success of this course I have provided a brief overview of the course including the aims, the cohort and then I have focused on an aspect of course design that integrates e-learning.

This course is relatively new (first cohort 2001), and specifically focuses on the development of teachers in the challenging early phase of their teaching careers. It aims to provide a framework of 'support for talented new teachers in urban schools' (DfES 2001: para 6.12). It enables and encourages high level professional learning to take place nurturing an enquiry approach to 'understanding teaching' and raising levels of 'research literacy' and practitioner research capacity. Students (who are all teachers) can follow either a **P**-route (straight from their PGCE), an **I**-route (after their Induction year) or and **E**-route (more experienced). To illustrate the timing of face-to-face (f2f) sessions and online tasks I have produced a summary from one **P**-route module in Table II below.

Timing/Tasks	**'Understanding Teaching' (UT) Module activity**
September	Inaugural evening (f2f)
1	Starter task (classroom management focus)
November	Saturday conference (f2f)
2	Classroom interactions
3	Learning, progression and achievement
February	Twilight/Saturday tutor group meeting (f2f)
4	Evaluating teaching
5	Developing pedagogy
June	Saturday conference (f2f)
July/August	Coursework

Table II: Timing of online discussions/tasks

The content, focus and timing of these tasks have been planned by the course team to be relevant and pertinent to the issues Newly Qualified Teachers (NQTs) encounter in their schools and classrooms. Each of these tasks, accessible via the MTeach website, follows a pattern, which has been designed and developed by the team: an opening page/section delineates briefly the aims, purpose and context of the discussion within the module in which it is located. From this, participants can move either to the task itself or to a background paper written specifically by course tutors drawing on key literature in the field and listing carefully selected, recommended background reading. The task usually offers a choice of questions as well as links to two or three digitised core readings. Participants are encouraged to read the background paper before they choose the task and to engage with the digitised readings before composing their response to the task (usually 300-500 words) by a specific date. In a further step, they are required to submit at least one further posting by a specified date per online discussion in response to the contributions made by their peers. Usually the task page also offers a sample initial posting authored by a course tutor as well as a sample follow-up posting for exemplification.

The academic course team is currently made up of ten staff who, all but one, are experienced PGCE tutors from six secondary subject areas and primary education, generally this tutor role is a minority part of their contract. The team's previous experience with ICTs in Education varies considerably from the ICT 'anxious' to at least two ICT 'enthusiasts'. It has been a challenge for the course team to design and develop this course over the last 4 years, it has now become one of the largest Masters level courses at the Institution, but I do not want to use that as a measurement of its success. What has developed, I believe, is a genuine professional learning community, it demonstrates many of the features of 'extended professionality' (Hoyle, 1974: 15) and 'involved professionalism' (Boyask et al 2004) referred to earlier. Team meetings are well-attended, open, and developmental allowing genuine debate and criticality. Staff who previously had not worked together seemed to have gained confidence and value the cross subject, cross phase learning that takes place. A special interest group (SIG) on ICT and Pedagogy grew out of this team and is now an established group open to all University staff. This SIG is research focused and I would argue demonstrates strongly both inquiry and social process features of a professional learning community. An indicator of the collaborative nature of research in the team is the recent

symposium presentation of at the 2005 British Educational Research Association (BERA) conference.

Because this course is new and was designed with technologies as an integral part from the outset it benefited from what I would assess as a high degree of TPCK. One can see from the earlier outline of one module the team needed to carefully design the tasks and sessions in an integrated way taking into account pedagogies, content and technologies. But what is also of crucial importance is that the course team included what I referred to earlier as ICT 'enthusiasts' (Seale, 2003). The team in some ways could relax and work to their strengths, the sharing of knowledge and techniques about ICT or content or pedagogy was reciprocal and thus a fostered a genuine community of professional practice. I feel the team has developed a shared ontological security and professional trust, which has worked well in achieving both course aims and a positive professional learning community. I think the combination of these factors (involved professionalism, TPCK and ICT 'enthusiasts') have been key to the successful design, implementation and development of the course.

Conclusion

This paper has attempted to look at the interplay between three areas, all undergoing substantial change. That of: professionalism, the nature of HE and (educational) ICTs. It has used the exemplar of one new course to contextualise the discussion in current practice. The introduction of the TPCK model illustrates the potential of such frameworks of analysis which are as yet relatively underdeveloped for learning technologies. Importantly in HE, as courses expand and embrace learning technologies, TPCK can provide a tool for thinking about the design of courses. In particular the model flags up the important issues of pedagogy, content and technology and emphasises or reminds us of the need to consider the inter-relationship between these factors particularly as the presence of learning technologies continue to grow at rapid pace. However, it is apparent that the importance of professional learning communities should not be underplayed when developing and running courses in contemporary HE. These communities need to have open debate about the design of appropriate pedagogies especially when utilizing ICTs. Additionally, the presence of ICT 'enthusiasts' can assist this design and developmental process, allowing the potential pedagogic gains of ICTs to be maximized. The development of a critical and inquiring

professional learning community can challenge the pedagogical validity of often market-driven ‘downloadable’ approaches to knowledge construction.

Contemporary HE students have grown up with many of these technologies; many HE teachers embrace learning technologies and can see their potential. However if innovative courses using learning technologies successfully are to be developed, HE teachers and managers need to facilitate and encourage ‘involved’ professional learning communities where there is ongoing critical inquiry into professional practice and pedagogy.

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