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Educators' digital literacies: the role of pedagogical design in innovation

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Abstract. The role of educators is changing. In addition to mediating their discipline, educators need to mediate contemporary digital cultures to help students develop digital literacies. This paper explores how the pedagogical design for an online Master's module addressed these challenges by foregrounding participation and knowledge creation. An auto-ethnographic action research approach was used to capture and reflect upon the decisions and roles adopted by the author during the introduction of collective blogging.

Keywords: auto-ethnography, blog, community, connectivism, design, digital literacies, knowledge creation, participation, pedagogy, professional education

1 Introduction

The debate about digital literacies in higher education focuses largely on undergraduates, and on whether they have the “capabilities which fit an individual for living, learning and working in a digital society” (Knight 2011) – capabilities which can be summarised as “digital tool knowledge + critical thinking + social awareness” (Newman 2009). But what about educators' own competences? Concerns about educators' ICT skills are not new but they are now focusing on their ability to embed digital literacies in the curriculum *while* maintaining quality in the student experience and learning outcomes (Beetham *et al.* 2009). New pedagogical designs are emerging in response to this dual challenge, inspired by connectivism, a “learning theory for a digital age” (Siemens 2005). Its “intense focus on the networked and shared (or sharing) experiences” (Tschofen and Mackness 2012) has implications for pedagogical design: educators need to plan how to network people, ideas, resources and systems since it is individual engagement in the various facets of networks that constitute learning.

At present, little guidance is available for educators to design activities using social software (Minocha 2009). The aims of this paper are to address this gap in the literature and to illustrate how innovation and quality can be articulated in a connectivist pedagogical design that takes into account students' digital literacies in the wider context of the knowledge society. The context is an online Master's programme in professional communication (MAPPC) aimed at professionals with many years' experience in organisational communications (e.g. public relations,

marketing, technical support). Collective blogging was introduced on a year-long module in Reflective Practice. This paper provides an insight into the process of embedding digital literacies and the roles adopted as a result.

2 Literature Review

Three concepts guided pedagogical decisions. *Blogging* is becoming a common practice in higher education. It can take different forms depending on the metaphor of learning used by educators; in the present study, blogging is framed as a reader-oriented practice (Smydra and Mitzelfeld 2012) involving participation and knowledge creation. *Academic Literacies* research is used as conceptual framework to place the discussion within wider debates about Web 2.0 in education.

Blogging

Blogging is a “paradigmatic” technology (Siles 2011, 792). The first blogs (or ‘weblogs’) appeared in the 1990s, making blogs the best established of all social technologies. They are now perceived as a core social technology for personal branding and in organisational digital strategies. Blogging has even been considered a key 21st century literacy (Penrod 2007), which makes it a valuable digital literacy for mature learners to develop. In the context of the knowledge society, these learners need to consider actively how digital literacies affect their employability, and to pre-empt possible labelling as “digital immigrants” (Prensky 2001a; b) by showing that, regardless of their age, they are capable of acquiring the literacies of “digital residents” (White and Le Cornu 2011).

Blogging has a particular value for educators supporting Reflective Practice modules, as studies suggest that it can enhance student reflection (Bouldin *et al.* 2006; Cotterill *et al.* 2010; Hall and Davison 2007; Palmer *et al.* 2008; Stiler and Philleo 2003). Shared collective blogs (as opposed to individual blogs) are well suited to support the social dimension of reflection identified by Kemmis (1985). They make explicit to students similarities and differences in the topics they choose and in the approaches their peers take to reflect on those topics; blogs can also help students realise that “the true value of reflective writing is to be found in the responses it elicits from others” (Goodfellow and Lea 2007).

Using a collective blog to support reflection on practice has other benefits. First, it increases usability. Checking multiple individual blogs takes time, which may encourage ‘blurking’ (i.e. blog lurking) (Davies and Merchant 2007) rather than active participation; conversely, by interacting through one collective blog, students can spend time productively by engaging with their peers’ outputs. Most importantly, using a collective blog enhances task authenticity for MAPPCC students: there is evidence that large organisations use private collective blogs to enable their staff to share expertise and produce knowledge collaboratively (Huh *et al.* 2007; Jackson *et al.* 2007; Schuff *et al.* 2009).

Participating in knowledge creation

The metaphors that educators use to shape a pedagogical design can profoundly affect learning experiences and outcomes (Sfard 1998). Common metaphors are 'knowledge acquisition' and 'participation' in the learning community. In the fields of blogging and reflection, another key metaphor is the 'diary' which, like 'acquisition', emphasises privacy and monologism rather than social aspects of learning. It makes sharing and assessing reflection deeply problematic (Boud and Walker 1998; Creme 2005). Sfard points out the difficulty and inadvisability of ignoring powerful metaphors – such as that of the 'diary'. The key issue then becomes how to integrate it into a more fruitful metaphor.

The 'participation' metaphor is particularly useful in professional education because it emphasizes "situatedness, contextuality, cultural embeddedness, and social mediation" (Sfard 1998, 6). It positions learners as individuals interested in "the existing and functioning of a community of practitioners" (ibid), thus promoting a different kind of identity from that of a diarist. A key advantage of the 'participation' metaphor is its focus on "activities, i.e., on 'knowing', and not so much on outcomes or products" (Paavola and Hakkarainen 2005, 538). Sharing personal reflections with peers to improve professional practice allows a dialogic and social dimension in learning to develop, which is in keeping with connectivism. As a new form of literacy, blogging involves an "active sociality" (Lankshear and Knobel 2006) whereby learners post, comment, 'like', embed media, and subscribe to updates – practices that can signal 'digital resident' status.

Paavola and Hakkarainen highlight the limitations of the 'participation' metaphor in "deliberately creating and advancing knowledge" (2005, 539), and put forward another metaphor of learning, that of 'knowledge creation'. Using the Vygotskian emphasis on signs and tools to mediate human activity, Paavola and Hakkarainen show how this third metaphor can foster a trialogic approach to knowledge: students engage in internal reflective dialogues, interact with one another, and respond to the artefacts (such as blog posts and responses) created by their peers. This metaphor has an impact on the selection of software tools, "the most promising [being] the ones that guide participants themselves to engage in extensive working to produce knowledge through writing and visualization" (ibid, 549). The value of blogs becomes clear in this perspective.

Academic Literacies

The tenets of Academic Literacies research are that reading, writing, and ICT use involve more than skill acquisition or enculturation into academic disciplines; they are patterned by power relations and the prior understandings and expectations of students and educators alike (Lea and Street 1998). The focus of Academic Literacies research has focused extensively on students' meaning-making practices, but the field also recognises that it is "productive to explore the choices of lecturers, as recontextualisation agents, regarding which knowledge to privilege" (Coleman 2012, 335). An Academic Literacies lens is therefore used to problematise the issues that

educators face when introducing Web 2.0 tools; Lea's pedagogical principles (2004) offer a useful tool to design learning tasks that are attentive to learner needs.

One of these principles acknowledges the "integral nature of relationship between literacies and technologies" (Lea 2004, 744). Coleman explores this idea further and notes that educators are "ideologically bound to broader sociological processes" (2012, 328) when they seek to mirror the digital literacy practices of the workplace in their courses, as is the case in the present study. Lea also makes it clear that educators have a responsibility in mediating technology. While Internet access may no longer be a major issue in Western societies, some students (in particular, mature students) may find it difficult to use Web 2.0 software because it redefines what it means to read and write in "a dominant political/ ideological order of high tech and global capitalism" (Tusting 2008, 319). Lea's call for creating spaces that help students explore different meanings and sense of identity (2004) still resonates in the digital age. Goodfellow and Lea go further and ask educators to nurture students' "critical confidence" in ICT (2007, 108) so they can challenge and/or contest the dominant order that Tusting identifies (2008).

3 Methodology

This study is part of a wider ethnographic action research (EAR) project into the introduction of social media on the MAPPCC. A variant of action research, EAR originates from the field of Development Studies, and aims to support communities' use of ICTs in developing countries. EAR researchers "use ethnography to guide the research process and... action research to link the research back to the project's plans and activities" (Tacchi *et al.* 2003). EAR has been adapted to research educational contexts (Bath 2009) and social media use in developed countries (Hearn *et al.* 2009), and therefore seems well-suited to research technological innovation in professional education.

This paper presents the "baseline research" (Tacchi *et al.* 2003) for the collective blog project. Three EAR concepts can shed light on educators' design decisions.

- **Social mapping** involves investigating the characteristics and needs of the target community and its relations to the wider social context. In the present study, professional characteristics and demographics influence pedagogical design. MAPPCC students have with a wealth of professional experience to explore in the Reflective Practice module. However, as mature learners, they may be considered "digital immigrants" (Prensky 2001a; b). Though generational differences are probably overplayed (Bennett and Maton 2010; Madden 2010a; b), this creates new responsibilities for educators to address mature learners' possible issues with digital literacies.
- The focus of an EAR project is to develop a **communicative ecology** which involves people, media, activities and relationships, linked through media repertoires, social uses of media, and social networks. To support the Reflective Practice module, I trialled three different software (discussed in the next

section) in different stages of the action research, thus gradually widening the communicative ecology, strengthening the student network, and embedding literacies that mature learners need to contribute to the knowledge society.

- The concept of **socio-cultural animation** is particularly relevant to the present study. EAR researchers consider themselves to be “catalyst, mediator and facilitator” as they work with communities to mitigate the effects of the digital divide (Foth 2006, 642). Educators play similar roles when they introduce social media and help students understand its potential for learning (Minocha *et al.* 2011). They must also bear in mind the ‘second-order digital divide’ arising from age, gender and social capital (Hargittai 2010; Lichy 2012; van Deursen and van Dijk 2011).

This paper is auto-ethnographic in nature because “only someone actively involved in working with new technologies within an academic context during their introduction and rapid development [can] have the opportunity to reflect on the task of design and record those influences from which a theory of design might emerge” (Duncan 2004, 9). Though auto-ethnography offers “highly personalized accounts that draw upon the experience of the author/ researcher”, it does so “for the purposes of extending sociological understanding (Sparkes 2000, 21).

Data was collected from personal notes, a blog which is “useful for self-reflection” (Minocha 2009, 55), and a life-grid (Bane 1996; Murray *et al.* 2010). To address possible concerns about validity, I strove to meet Guba and Lincoln’s criterion of “authenticity” for qualitative research (Guba and Lincoln 1994) by sharing the process of introducing collective blogging and by reflecting closely on decisions and roles. The study also identifies wider themes, notably how “changing literacy practices are intimately associated with networks of changing social practices and technologies, from the local to global levels” (Tusting 2008, 317), so it is hoped that the paper achieves *analytic* generalisation value for educators wishing to widen their communicative ecology with social media.

4 Discussion

A wide range of issues were identified in the data. The literature was used to prioritise the following themes: the innovation process, socio-cultural animation considerations, and personal digital literacies.

Widening the communicative ecology – a process view

To embed blogging practices in the MAPPC, I explored different possibilities in three consecutive iterations of the Reflective Practice module, following the stages of innovation identified by Somekh (1998).

- In a first **routine** stage (2008-9 module iteration), discussion forums were used within the virtual learning environment (VLE) since this medium has been shown to be successful in supporting students’ reflection on practice (Rocco

2010). However, forums are the main means of student interaction on MAPPCC modules, so using forums both for reflection and discussion proved somewhat confusing for students; the learning environment itself did not reinforce visually that a different type of approach to learning was required.

- In the second **refinement** stage (first term of the 2009-10 module iteration), I activated individual blogs within the VLE. In addition to supporting the learning task, the aim was to help mature learners develop a sense of 'residence' in a 'paradigmatic' technology for the knowledge society. While individual blogs within the VLE worked reasonably well from the point of view of individual engagement, there were limitations in terms of collaborative knowledge making. This was mostly due to usability problems with the VLE and its limitations in supporting the complex set of rules, relations and codes normally found in blogs (Schmidt 2007). As McLoughlin and Lee note, VLEs often do not emulate Web 2.0 well (2007).
- For the third **integration** stage (last two terms of 2009-10 and all three terms of 2010-11 iteration), I introduced the WordPress blogging platform – a significant move since the university does not support it. Taking on the role of learning technologist, I set up this blog as a password-protected space because MAPPCC students may not wish to post their reflections on professional practice on the public Web. I also took the opportunity to switch from multiple personal blogs to a single collective blog, in order to: address usability problems; make students aware of the value of blogs as tools for information, identity, and relationship management (Schmidt 2007); and enhance task authenticity, by mirroring blog-based practices used in large organisations (as described in Dugan *et al.* 2010; Yardi *et al.* 2009). After initial reservations, students enthusiastically took to dialogic knowledge creation.

Planning socio-cultural animation

Beetham, McGill and Littlejohn (2009) provide a general framework to help educators to develop students' digital literacies in practice. It was adapted here to focus on issues relevant to knowledge-creation through collective blogging, and to include insights from Academic Literacies research into ICT use in higher education.

- By recontextualising the corporate use of collaborative blogging, the module provides an **authentic context** for collaborative knowledge creation. Both the medium (blog) and the focus (workplace issues) create a potential for 'talkback', which involves "readers in responding to written reflection in kind" (Goodfellow and Lea 2007, 102) thus developing dialogic ways of constructing professional and scholarly forms of knowledge. Furthermore, the practice of 'talkback' has relevance for some MAPPCC students who engage with 'audience/producers' (Meyers 2012) as part of their workplace duties.
- The learning tasks and resources provide **scaffolding** for students to develop new perspectives on blogging and reflection. They clarified what is expected of MAPPCC students beyond reading texts; the idea of knowledge creation being a dialogic or even dialogic process (McLoughlin and Lee 2010) was unfamiliar to

students as few had studied online and/or used blogs before. In addition, moderation included “explicit discussion of the draft nature of writing in this environment” (Goodfellow and Lea 2007, 104). Finally, the assessment grid identified the levels of reflection, scholarliness and participation that students were expected to achieve.

- Lea (2004) emphasises the need to make **meaning-making** practices explicit to students. Blogging can accommodate ‘transitional writing’ (Creme 2008), that is, writing in which students can work with peers to refine their understanding of what it means to participate in knowledge-creation in a Master’s course. In professional education, making meaning-making explicit also involves helping students draw on their workplace experience, to help them grasp differences between writing – and blogging – for academic and work purposes.
- **Conflicts** may sometimes occur between different ICT-based practices. For example, Lea and Jones (2011) discussed the difficulties that undergraduates face when recontextualising their use of ICT to support learning. Following Ivanič *et al.* (2007), the design for the Reflective Practice module harnessed business-oriented practices familiar to MAPPCC students: task design encouraged students to discuss explicitly knowledge-making in business and academic contexts, to help them develop a sense of ownership in the collective blog.
- Like all mature learners, MAPPCC students bring with them **prior concepts and understandings** of ICT practices (Lankshear and Knobel 2006; Lea and Jones 2011) and of educational practices (Lea 2004). To allay students’ initial unease about writing blog posts rather than more familiar essays, I focused their efforts on reviewing workplace issues and emphasised the value of blogging for an audience of peers as a form of professional practice.

Tusting warns educators about “turn[ing] new literacies into a set of abstract skills and techniques” (2008, 325). By attending to all aspects discussed above, it was possible to contextualise digital literacies to address the needs of mature learners working in professional communications.

Implications for educators’ own digital literacies

In the digital age, it is no longer enough for educators to act as “mediators of academic culture” (Dysthe 2002). They also need to mediate aspects of the digital culture that are relevant to their disciplines (here, Communication Studies) and to the needs of students as digital citizens. This called for identity work: rather than consider myself an “outsider” (Tusting 2008) or “digital immigrant” (Prensky, 2001a; Prensky, 2001b), I used White and Le Cornu’s alternative framing (2011): they define ‘digital residency’ as an outcome of a developmental process – rather than a matter of generation – thus allowing me to reflect on my long-term experiences of software use (captured in a life-grid). Developing a digital resident identity was a requisite (Conole 2012; Schroeder *et al.* 2010) for the introduction of the blog. Without a personal experience of blogging, tweeting and social networking, it would have been difficult to address the technical issues of access and skills, and the higher order issues of digital knowledge-making and online identity.

Pedagogical approaches needed to be rethought to make innovation possible (Somekh 1998, Minocha 2009). Supporting individual learners remained important as ever; however, I also adopted community-focused approaches because “the way to prepare students for the new world is to facilitate playful, explorational communities of peers” (Tusting, 2008, 325) – hence the importance choosing ‘participation’ and ‘knowledge-creation’ as underpinning metaphors. Unexpectedly, a different style of e-moderation emerged: the initial ‘guide at the side’ stance gave way to that of a ‘peer that steers’ in response to the vitality of student engagement. As Somekh emphasises, “soft factors... are essential to effective innovation” (1998, 12).

Harnessing the affordances of collective blogging, I used the three dimensions of pedagogy 2.0 – participation, personalisation, and productivity (McLoughlin and Lee 2008b) – to design the 2009-10 and 2010-11 module iterations. Like Bender (2002), I found that these approaches do not inherently support quality and criticality in knowledge-creation. Indeed, personalisation and the cult of the personal can be deeply deceptive, particularly when associated with employability in the context of the knowledge society, as they may distract educators from the key educational goals of individual agency and emancipation (Clegg and David 2006). As for participation and productivity, the professional background of MAPPCC students made them able and willing to locate their efforts within the “rapid growth of digital popular-culture media” (Goodfellow 2011, 139). However, the pedagogical design only supported explicitly reflection on *personal* workplace practices, and did not encourage students to consider wider influences and explore how digital media has “allied itself to commercial and political interests that [are] themselves ideologically dominant” (ibid). There were therefore limitations in the design, in that it did not nurture an “expanded sociocultural concept of digital literacy” (Goodfellow 2011, 134).

5 Conclusion

This study is situated in a period of change for educators who need to consider their own digital identities as well as maintain the quality of learning experience and outcomes. As McLoughlin and Lee (2008a) point out, social media can be used as a catalyst of changes in pedagogy. This paper presented an example of how this challenge was managed: in addition to mediating the discipline, I acted as ‘catalyst’ by embedding collective blogging in a module, as ‘mediator’ of contemporary digital cultures by using the key metaphors of participation and knowledge, and my role of ‘facilitator’ also underwent a subtle shift from ‘guide’ to ‘peer’. Paraphrasing Newman (2009), the educator’s digital literacies exhibited in this study can best be summarised as “digital tool knowledge + critical connectivist pedagogy + social awareness of the knowledge society”. As it is a small-scale review of pedagogical design practice, the study has unavoidable limitations, so it is hoped other auto-ethnographic accounts will reveal the complexity of educators’ decision-making regarding the introduction of Web 2.0 technology and of the role they play in helping students become active and critical contributors to the knowledge society.

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