

Context as Text in Mobile Digital Literacy: A European University Perspective

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ABSTRACT

The notion of digital literacy is rapidly gaining coherence and visibility as a major focus in UK universities and more widely in Europe for a cluster of non-subject-specific attitudes, skills and competences appropriate to digital societies. This paper argues that there is an obvious mobile component or addition to these and that this would be a tactical improvement to the digital literacy agenda. A world characterised by near universal connection and movement does however pose a more serious and profound opportunity or challenge to this agenda, that of context as text and self as reader and writer. This paper reflects on a significant component of the socio-cultural context of mobile learning.

Author Keywords

Literacy, digital literacy

SOME BACKGROUND TO DIGITAL LITERACY

In order to explore the relationships between mobile learning and the growing discussions of digital literacy, we must first map out the general European digital literacy landscape. We will use the digital literacy agenda within UK higher education as a proxy for the wider European movement. Several sources (Beetham 2010; Belshaw 2011) review other European and international initiatives, programmes and endeavours that have run parallel to the UK discourses on digital literacy.

Within UK higher education, this agenda has over the last two years been driven and articulated by the e-learning programme within JISC (the Joint Information Services Committee, see, for example, <http://www.jisc.ac.uk/whatwedo/projects/elearningllida.aspx>, <http://jiscdesignstudio.pbworks.com/w/page/46421608/Developing%20digital%20literacies>, and <http://www.jisc.ac.uk/whatwedo/programmes/elearning/developingdigitalliteracies/developingdigitalliteraciesprog.aspx>)

. This has been an ambitious and coherent campaign to engage the UK higher education sector, from grass roots teaching staff to university managements, in discussion, development and publication, in order to formulate a consensus about the kinds of attitudes, skills and capabilities that students will need to have to get the full benefit of the technology and resources available to support their learning. A pragmatic approach to definition might be to see what we expect of these constituent capabilities, for example;

- “they are a pre-requisite or foundation for other capabilities;
- they are critical to an individual's life chances;
- they are essential to the making and sharing of culturally significant meanings;
- as a result, there is or should be a society-wide entitlement to these capabilities at some level.” (Beetham 2010:1)

The programme has also documented the differing ways in which higher education institutions have defined and supported the acquisition of these skills and capabilities within their own briefs, and has sponsored projects to promote further development, publication and dissemination.

A handful of observations will suffice: firstly, the skills and capabilities related to the use, exploitation and potential of mobile devices are obviously only a subset of this larger agenda. It is however recognised that they represent an increasingly significant part of a diverse and changeable ecology of the various digital technologies that might support learning but importantly a part where the loci of control and confidence has shifted away from lecturers within the temporal and spatial bounds of their institutions and towards their students, often outside the bounds of the institutions. This shift means that supporting an institutional digital literacy agenda will transform the roles and responsibilities of teachers and lecturers, expanding these from just being authoritative subject experts facilitating transmissive and discursive learning to include learning *with* or even

from their students. The capacity of these technologies inside the broader web2.0 ideology means that embraces the *ends* as well as the *means* of learning, the *what* as well as the *how*.

Secondly, the larger agenda represents an attempt to formulate a portfolio of comprehensive and generic attributes that might characterise graduates leaving colleges and universities in the coming years. The discussions within this emergent European digital literacy community have resonated with other older discussions across the higher education sector about the nature of so-called *graduate attributes* or even *graduate-ness*, part of an attempt to pin down the broad but defining features of the European university experience and the nature of its *added value*. All of these various discussions have managed to define quite succinctly those attributes that relate to employment and employability but have struggled to be quite so precise about those other attributes that could characterise the digitally literate graduate in varied social, civic, cultural, political and community settings.

Thirdly, the digital literacy discussions have also been informed and influenced by earlier discussions about digital safety and digital rights. The implication is that being digitally literate implies making ethically informed choices and decisions about digital behaviour, for example about digital property, digital identity and digital privacy. The digital literacy discussions have been further skewed or confused by the exact role and significance of basic IT skills. These are clearly important attributes but because of their concrete and utilitarian nature, they are easy to define, perhaps at the expense of attributes that are more abstract or more fluid. Other attributes can be grouped under the headings attributes and practices, and depend on access, creating a hierarchy of abstraction or dependencies.

Attribute	'I am...'
Practices	'I do...'
Skills	'I can ...'
Access	'I have ...'

(Beetham and Sharpe, 2009)

Lastly, the digital literacy discussions have also, however inappropriately, drawn on the terminology and literature of *digital natives* and *digital immigrants* (Prensky, 2001), implying that digital literacy may be a generational attribute. There are also consequences, in defining digital literacy, for definitions of *digital divides* and notions of *digital inclusion*. All three have their respective implications for ideas about entitlement and equity. Digital literacy is also a cultural attribute resting on the notions of literacy, learning, education and knowledge local albeit often tacitly to a specific culture or sub-culture. One of the challenges for educators is the increasing fluidity and confusion as more cultures and sub-cultures emerge in cyberspace and *phonespace*, orthogonal to those in geographical space (Traxler, 2012).

Clearly, these discussions about the nature of digital literacy are neither clear-cut nor isolated from other discussions about students and studying in any wider social and technological context. They are often pragmatic and concrete, intended to inform policy, priorities and practice, and do not always make explicit contact with the notions of literacy itself, with reading and writing, and consequently with the changed meaning of reading and writing in a digital world. This world is being transformed and populated by more and more digital means of communication, comprehension and expression.

MOBILE LEARNING AND MOBILE DIGITAL LITERACY

This brief account of digital literacy in general is intended to introduce the idea of *mobile digital literacy* and thus ask whether such a phrase has any meaning, value and significance. An obvious response would be to re-enact the earlier account but now prefixed with the extra adjective *mobile*. This would be superficially satisfying and would no doubt assert that there are a set of skills and capabilities related to living and functioning in a world of mobile digital devices. A more rigorous approach however is to look at the nature of literacy and ask whether the activities of communication, comprehension and expression are being transformed by specifically *mobile* digital technologies.

Literacy is a component and a foundation of many different types of learning, irrespective of how these terms are defined. Consequently, we can assume that digital literacy is a component and a foundation of many different types of digital learning - or *e-learning* to use the conventional term. Mobile learning - or *mobile e-learning*, to give it a fuller name - is a new way of reading and writing the existing curriculum, within the existing education system, a way opened up by mobile devices. These devices allow access for readers who were previously too distant, too geographically, socially, physiologically, infrastructurally, culturally or

economically distant from the other kinds of educational reading and who thanks to mobile technology could now be brought into the community of academic readership. These devices also enhance or enrich the nature of the academic text, creating the opportunity to read and write richer texts from that curriculum. These two claims can be elaborated (Traxler 2008a) but both are in theory predicated on a foundation of mobile digital literacy. Mobile learning leaves the fundamental ideas of the *reader* and the *read* untouched and unchanged. Examining mobile learning may allow us to explore the nature of this mobile digital literacy but this is however to view mobile learning and mobile digital literacy in a rather artificial context, as academic practices confined to educational institutions. Furthermore, the only sustainable way forward for most mobile learning initiatives is to exploit *learner devices* (Traxler 2010) or *BYOD, bring-your-own-device* (CoSN, 2012), the devices students already own and use. The implication is that sustainable mobile learning must be based on students' existing skill-sets, based on their own devices, and that this defines their mobile digital literacy but must also be a durable foundation for their mobile lifelong learning. There is thus a dynamic between digital literacy as seen from the *top-down* of the institutions and seen from the *outside-in*.

We argue elsewhere (Traxler 2010b) that this is no longer an adequate or appropriate frame of reference since the whole social and cultural context of learning (and its economic significance) is being transformed by the movement and connectedness afforded by universal personal mobile technologies. In this paper, we take this argument further and argue specifically that the impact of the powerful technologies of context undermine the stable dichotomy between the *reader* and the *read*, and thus challenge the earlier definitions of literacy, predicated on this apparently stable and obvious dichotomy.

NO LONGER THE READER AND THE READ

Context has been defined and classified in a variety of different ways. Working definitions might be, “the formal or informal setting in which a situation occurs; it can include many aspects or dimensions, such as environment, social activity, goals or tasks of groups and individuals; time (year/month/day).” (Brown 2010:7) or “any information that can be used to characterize the situation of an entity, where an entity can be a person, place, or physical or computational object” and thus, context-awareness or context-aware computing is “the use of context to provide task-relevant information and/or services to a user” (Dey & Abowd, 1999:1), “typically the location, identity and state of people, groups, and computational and physical objects”. Popular and powerful retail mobile technologies now routinely sense aspects of context, usually time, location, orientation and inclination in a variety of frames of reference but in terms of the current formulation, the context was always the *read*, the *text*, it was *outside*, it was *other*, it was the container of the *reader*.

Context now has an increasingly rich meaning within the mobile learning research community and is used to describe processes by which learning can be enhanced with ideas, images and information that are somehow contextual. In the early days, for example, the *MOBIlearn* project, this context of the learner and their learning originally meant merely the spatial and temporal context. The time and place of the learning and the learner, and their mobile device, would trigger images and information that would enhance their learning. Practical considerations of technology and resource usually meant this was severely bounded in space, for example to the confines of a museum building, heritage site or cultural venue, and likewise bounded in time, to the duration of the visit of the individual learner. The technology would nevertheless be able to make increasingly better inferences about the learner's interests as the history of the episode built up and would react accordingly by providing more personalised images and information. In context-aware mobile learning, these interactions might take the form of oral and social history; artistic, expressive, creative and literary creations; reviews, responses and reactions to the environment, all specific to the locality and the context, all specific to their creators. They could clearly also be cumulative and iterative, reactions triggered by reactions, recollections triggered by recollections.

The subsequent trajectory of exploiting context in learning could exploit social context, namely the learner's social circle, and *user-generated contexts*, namely, what the learner brings with them to the external context, that is their preferences, values, knowledge and history. The distinction between the learner and their context has been eroded by the notion of *user-generated contexts* (Cook, 2010), the concept named to emphasise the role of learners themselves in shaping their own context, “the context within which communication takes place is augmented by users to suit the needs of the individual and/or the conversational community” (Cook *et al.*, 2010:4). We can also embrace the Web2.0 ideologies and technologies, those that transform learners from merely the readers and consumers of information, ideas and images to the writers and producers of them, and also transform the nature of their identities into multiple and mutable forms.

This weakens the notion that context is a passive *text*, merely to be *read*, separate and distinct from the *reader*. A more radical and comprehensive account of mobiles in society takes this further. The ideas and practice of context-aware mobile learning came, however, out of a particular historical and social milieu. They were

embedded within the mobile learning research community and seen as a major development and contribution to the wider field of technology-enhanced learning. The last three or four years have however seen a rapid change in the ownership of powerful personal digital technologies for learning. This significantly changes the locus of the discussion.

Several authors (such as Nyiri, 2007; Traxler, 2008b; Plant, 2001; Ling, 2004; Fortunati 2004; Goggin 2006; Geser, 2004) have argued that the mobility and connectedness afforded by these devices are implicated in profound changes in our understanding of space, place and time; on identity, presence and community; and on learning, understanding and knowing. There is a resonance here with the various positions of *post-modernism*, specifically *post-structuralism*, and these undermine the simple and apparently intuitive dichotomies of the *self* and its *context*, between *subject* and *object*, the *reader* and the *read* of the digital literacy discussion because they assert that language rather faithfully recording and representing reality actually colludes to its construction.

Our interest is specifically with the contextual and associated technologies and their impact. One of the consequences of context-aware technologies is to dilute the *here-and-now* (Traxler 2011). The growing number of augmented reality applications adds to the dilution of the immediate experience of the *here-and-now* context, the *read* is becoming less tangible and fixed. Mobility and connection are also amongst the factors changing individuals and their identities, and the nature of communities. The rise of networked technologies has led to far more complex ideas about identity, both formally, in relation to *official* network technologies, and informally, in relation to social network, and thus what constitutes the user, the *reader*, as opposed to their context, the *read*, changes and blurs. Mobile devices affect the processes by which ideas, images, information and knowledge, and hence informal learning, are *written*, produced, stored, evaluated, valorised, distributed, delivered, consumed and *read*. These become more popular and demotic. They are now part of a system that allows everyone, including learners and potential learners, to *write*, generate and transmit content for learning, not just passively *read*, store and consume it, making mobile systems an integral part of the Web2.0 ideology that takes users from merely the Web's readers to its writers. The impact of mobility and connectedness on knowledge and reading is to make them far more obviously relative, local, transient and partial.

Knowledge and *text* are local in being local to a community, local in being location-specific, produced locally and consumed with defined communities, not necessarily geographically or spatially defined communities, nor authoritative, universal and canonical. The informational context, and hence the *text*, is no longer fixed, monolithic and external. (Traxler, 2011) This has implications for the hierarchy, and status of different writing genres, and their equivalents in cyberspace and *phonespace*

THE READER IS THE READ

We have explored a range of factors derived from the social impact of mobile technologies that, within a European context, are complicating and enriching the notion of literacy and specifically digital literacy. This may be analogous to earlier transformations of the same notion within a European context as it evolves under the impact of each new technology. Our position is that the notion of digital literacy becomes fragmentary and contested; mobile technologies do not merely enrich or extend the reading and the readership of the digital world about us but to fundamentally trouble the notions of the reader and the read, replacing stable and intuitive boundaries with more fluid, partial and contingent ones.

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