Curation, combat or coping? Student entanglements with technologies in HE.

Contemporary society has seen a massive increase in the use of mobile networking technologies and digitally-mediated communication (e.g. Ofcom, 2011). This has led to profound changes, not only in terms of everyday communication, but also in educational settings, as meaning-making takes place in increasingly digital, multimodal, dispersed and intertextual formats.

Many of these changes are masked by apparently unproblematic binaries in educational thought, such as distinctions between the 'face-to-face' and 'e-learning'. However, as the social, physical and temporal spaces of the material campus become saturated with digital mediation, this taken-for-granted dichotomy is cast into radical doubt. Instead, the integrity of the 'face-to-face' as a primarily analogue, synchronous space marked by physical copresence becomes blurred and 'posthuman' (e.g. Hayles 1999). The powerfully reflexive relationship between changing media and higher education knowledge practices has already been noted and explored by media theorists (e.g. Kittler 2004), and the profound implications for contemporary semiotic practice and literacy practices have been recognised, as print media are replaced, reconfigured, combined and complicated by a vast range of digital devices and practices. These shifts are by no means trivial as they may serve to effect widespread change to rereading, writing and assessment – practices at the heart of the educational enterprise. However, although student uses of mobile technologies have been explored in the literature (e.g. Kukulska-Hulme, 2007), there is arguably a dearth of research exploring the ramifications of ubiquitous digital media for student textual practices, particularly work examining day-to-day practices.

This paper will explore this issue through the analysis of data collected via a JISC-funded project, which included a set of longitudinal case studies investigating student practices around technologies and texts (JISC 2012). 12 postgraduate students across a range of programmes at a specialist Education institute were asked to document their day-to-day digital and textual practices over a six-month period, using photos, video and notes on handheld iPod Touch devices. They discussed and explored the significance of their journals in four in-depth one-to-one qualitative interviews throughout the study. The findings reveal highly complex forms of engagement with literature searching, reading, notetaking, drafting and writing texts, characterized by engagement with a range of digital devices and applications, in a range of settings.

One of the most striking findings of the study was the degree to which students' engagements required *adaptability*, *agility* and *resilience* in the face of a complicated, challenging and constantly shifting configurations of technologies and textual engagements. The analysis will focus on three different student responses to the overwhelmingly complex semiotic landscapes they frequently found themselves in, demonstrating three different forms of 'entanglement' (Fenwick et al 2011) with technologies and texts emerging from the data.

The first - Yuki's - approach might be characterised as 'curation'; a painstaking and methodical process of collection, collation and transformation of texts to form a personalized digital repository, using techniques such as extensive digitisation of print texts and the overlaying of digital notes. This approach was motivated by Yuki's

desire to maximise portability and fluidity of her physical movement between spaces. In contrast, Sally's response might be called 'combat'; she expressed distrust of handheld devices and concerns over online privacy, and her practices evinced a highly ambivalent attitude towards the digital, positioned as an opponent to be outwitted. Sally describes a persistent grappling with software, rather than providing a masterful account of translating resources to serve her needs as Yuki does. A third student, Faith, provided an account that stands in marked contrast. Both Yuki and Sally provided narratives of success, although Sally's involved struggle. Faith's engagement, however, can best be described as 'coping'. At times she was simply unable to achieve her objectives, not due to a lack of capability with the technology per se, but because it had been assembled in ways that blocked her, via a combination of technological failure, configurations preventing customisation and the installation of specialist software, or straightforward lack of access:

'So, six student teachers tried to use other computer. So, it, kind of, sometimes feels a bit crowded. And when the school staff want to use it, well, okay, it seems like we are the invaders, intruders?' (Faith)

These responses will be analysed in terms of two theoretical perspectives. Firstly, Feenberg's (1999) 'margin of maneuver' will be considered, in particular the ambiguity required in technological plans and designs for technologies to be enacted in real settings. This concept reconfigures notions of agency as a response to the structuring effects of technology that Feenberg calls 'technical codes'. This interplay of agency between the human and nonhuman actors in the data will also be discussed in terms of Actor Network Theory (e.g. Latour 2005) and sociomateriality more broadly (e.g. Fenwick et al 2011).

The paper will conclude with a discussion of the possible ramifications of this study for conventional understanding of 'digital literacies', arguing that a competency-based, taxonomic account is doomed to overlook the nuanced and reflexive nature of these entanglements between student, text and machine. It will conclude with a discussion of potential implications for institutional and pedagogic practice, and future directions in terms of both research and theory.

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