Designing ‘Authenticity’ in Digital Learning Environments

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Abstract

This article reports on a study into the integrative use of social media tools to create an ‘authentic digital learning environment’ for undergraduate literature teaching at City University of Hong Kong. An authentic digital learning environment is one that is created—rather than adopted or adapted—by student cohorts. The findings of the study suggest that the use of digital media in the classroom can create higher levels of student engagement, but only when it is embedded systematically in module design. This article outlines the rationale for moving to a digital learning environment composed of social tools, thereby situating learning in a context that is more authentic to students while seamlessly integrating digital literacy education into traditional subject areas.

Introduction & Context

This research commences from a position held by Laurillard (2012) that teaching is a design science and, as such, can be described, created, and evaluated through consideration of the patterns which contribute to the complex relationship between learning and teaching. These patterns can become even more apparent in digital pedagogies, where the correlation between content and form is often highly significant. This investigation studied how learning activities conducted in ‘authentic digital learning environments’ impacted student experience in an English literature course in the Department of English at City University of Hong Kong. An authentic digital learning environment is one that is created—rather than adopted or adapted—by student cohorts. In practice, this means that the functions normally fulfilled by a learning management system (LMS) such as Blackboard or Moodle (e.g. content delivery, lecturer-student communication, student-student communication, work submission, assessment) are accomplished inside an environment that students incrementally and collaboratively build through their sustained connections within web 2.0 tools such as Twitter, WordPress, and RSS.

Proprietary LMSs have been shown to be important tools for enhancing student learning, particularly in literature and language studies (e.g. Gimmel, 2007; Levy, 2009; Lancashire, 2009); however, they are specific only to educational contexts (and particularly to higher education contexts) and students will ultimately leave them behind following graduation. This research examined the impact of learning activities and materials that are assigned, created, and assessed within an environment that more closely mirrors students’ own authentic engagements with collaborative technology. The findings from this study suggest the importance of full integration between material design and implementation in digital pedagogy, and underline the importance of holistic instructional design with equal consideration of task and material creation.

Authentic tasks & authentic materials

Previous research has focused on ‘authenticity’ as a quality of the discrete learning task or assessment tool (Cronin (1993), Young & McNeese (1993), Lebow & Wager (1994), Herrington & Herrington (1998), Oliver & Omari (1999), Barab, Squire, & Dueber (2000), and Herrington, Reeves, and Oliver (2006)). Lombardi (2007) defines authentic learning as the focus on ‘real-world, complex problems and their solutions, using role-playing exercises, problem-based activities, case studies, and participation in virtual communities of practice’ (2). This type of engaged, participatory learning task can lead to what Ramsden (1992) refers to as ‘deep learning’, a mode of learning marked by long-term retention and genuine critical application of concepts, ideas, and theories. This interest in
‘authenticity’ as a possible attribute of a learning task or assessment tool supports learning that operates within meaningful and consequential learning contexts by situating the task as the elemental feature of teaching.

A related use of ‘authenticity’ in pedagogical design comes from Lave & Wenger (1991) and Wenger (1998), whose influential ‘situated learning’ and ‘communities of practice’ models emphasize the need for learning, teaching, and assessment methods that replicate the demands of the professional environments students will ultimately enter. These understandings of authentic tasks and authentic materials reflect Piagetian models of constructivist learning in the way they seek to encourage learning that centers on and bolsters schemata, that is, the patterns of knowledge that students construct and continue to build on through the educational process. Because LMS bear little resemblance, particularly in terms of information architecture, to software that students will be likely to use in their professional lives (e.g. Customer Relationship Management software [CRM], Project Management Information Systems [PMIS], and Content Management Systems [CMS]), there is the suggestion that alternative, authentic modes of learning management which mirror those used in professional environments can benefit student experience and achievement.

Although the majority of research on authenticity in pedagogical design underlines the significance of authenticity in assessment and learning tasks, a further body of research in the field of English language teaching portrays authenticity as a feature of learning materials and content delivery. In modern language education, ‘authentic materials’ are examples drawn from the real world such as magazines, newspapers, and advertisements, which provide language learners an unmediated exposure to the target language. In this context, authentic materials can be contrasted with ‘graded materials,’ readings which appear in textbooks and other prepared course documents which have been designed specifically—in terms of vocabulary, complexity, and grammatical formation—to be appropriate for the student group and learning objectives. As Berwald (1987) and Peacock (1997) argue, authentic materials are an important element of student motivation because they give examples of how the language is used outside of the constraints of the classroom. Bardovi-Harlig et al. (1991) point out the importance of authentic materials in developing pragmalinguistic competencies and Gilmore (2007) underlines the importance of the coherence of authentic materials in developing discourse competencies. Gilmore (2007) also reminds that authentic materials can present a greater challenge to students than graded materials, a challenge which may have significant impacts upon learning goals and objectives.

Both of these strands of investigation—on authentic tasks and on authentic materials—have described ‘authenticity’ as a feature of isolated patterns of pedagogy rather than part of broader holistic systems of learning and teaching. The desirability of what may be termed ‘authentic’ learning is restrained to one aspect of learning and teaching design. Neither of these views on pedagogical authenticity unite both task and material to consider an authentic learning environment that supports and engages students in ways that reflect genuine uses of both course content and the application of course content to life beyond the lecture hall. It seems clear that the advances of web 2.0 connectivity has made this style of learning and teaching possible in a way that it never has been before.

Digital writing and assessment in English as a Second Language (ESL) contexts

As Berwald’s (1987) and Peacock’s (1997) comments on ‘authentic materials’ suggest, the relationship between material design and teaching design is a critical element of modern language education. Conducting this study on ‘authentic learning managements systems’ in Hong Kong—a semi-autonomous Cantonese-speaking region, which Schneider (2011) describes as ‘a classic ESL
country where knowledge of English is typically associated with middle-class identity and a modern, international outlook on life’ (p. 139)—brought a number of pedagogical issues to the fore. Literature is an important part of the ESL classroom, and can provide a unique and distinctive development of both linguistic and cultural competencies (Lazar 1990; Nance 2010). However, the teaching of literature in ESL contexts generally minimizes the uses of writing tasks. Language teachers’ weariness over the use of literature—and, particularly, writing about literature—seems well-founded. A point that Dixon made in 1983 seems to remain true for many ESL literature students: ‘often, it seems, they are learning to substitute intellectual sophistry for the effort to give authentic articulation to their literary response’ (p. 219). Brown, Bull, and Pendlebury (1997) suggest that ‘a good case could be made for arguing that [essays] are the most useful way of assessing deep learning’ because they require students ‘to integrate knowledge, skills and understanding’ into a cohesive written work (p. 58). While it seems that the university essay is a good way to assess student work and, indeed, a key element of the learning process of students, Bourdieu and Passeron (1977) famously point out in Reproduction in Education, Society and Culture that the essay is a privileged, institutionalized genre, one that reflects little of the type of writing that students will undertake in their future professional lives. Educators thus might be wise to consider the strength of alternative forms of written assessment, a shift with significant applications in ESL learning and teaching contexts.

Authentic digital learning environments

Instructional design for distance, blended, or distributed learning must recognize the relationship between learning and teaching, and integrate learner, task, and technology into a coherent design system (Herrington, Reeves, and Oliver, 2006). Jenkins (2009) further develops this point:

*Rather than dealing with each technology in isolation, we would do better to take an ecological approach, thinking about the interrelationship among different communication technologies, the cultural communities that grow up around them, and the activities they support.* (7)

Although some work has been done on the importance of student customization in instructional design (Vovides, Sanchez-Alonso, Mitropoulou and Nickmanns, 2007; Mason & Rennie, 2008), the majority of research has focused on social media tools in isolation and their particular implications within the classroom. The view has almost universally been that social media tools can provide important learning opportunities as long as their uses are appropriately aligned with course learning objectives and intended outcomes. For instance, Facebook can help to better engage students in learning because of its familiarity and ubiquity, but students can still be hesitant to ‘friend’ lecturers or to open up a largely private digital network to classroom purposes (Bosch, 2009; Irwin, Ball, and Debsbrow, 2012; Lee, Teng, Hsueh, and Li, 2013). However, other research (e.g. Sapargaliyev, 2012) suggests that students show little engagement in closed Facebook groups for learning materials, and can be resistant to the use of Facebook in learning and teaching because of privacy concerns (e.g. Wang, Woo, Quek, Yang, and Liu, 2012). The uniqueness of Twitter inheres in the fact that it offers the potential for a greater amount and greater variety of teacher-student, student-teacher, and student-student interaction in lectures (Tyma, 2011; Andrade, Castro, & Ferreira, 2012; Tieman, 2013). And as Lowe & Laffey (2011) and Rinaldo, Tapp, and Laverie (2011) point out, the use of Twitter can be especially relevant in fields such as marketing where students will likely be using Twitter in their future jobs.

Social networking can play a significant role in the development of community and a shared community of inquiry (Sinnappan & Zutshi, 2011) and lead to a participatory culture that extends beyond the classroom (Jenkins, 2009). By their very nature, social media tools are not isolated, but
are defined by their relationships and connectivity as much as by their individual affordances. As this article defines it, authentic digital learning environments are the spaces that are created when students collectively and consistently interact through web 2.0 tools such as Twitter, WordPress, and RSS. When this type of engagement is embedded systematically within module design, the authentic digital learning environment fulfills nearly all roles of a traditional LMS and does so in a way that can lead to new learning opportunities for students.

Methodology

This research took place in an English literature course called Literature in Our Lives at City University of Hong Kong during Spring 2014. Literature in Our Lives is an introductory General Education course available to all students at the university. There were 56 students enrolled in the course, which was delivered through a 3-hour weekly mixed seminar/lecture. Before this course began, students all had at least one semester experience of using Blackboard to handle class discussions, file sharing, announcements, and work submission. Literature in Our Lives moved away from Blackboard to locate all discussions, file sharing, announcements, and work submission in authentic digital tools best suited for these purposes, including WordPress and Twitter.

Students completed approximately 3,000 words of assessed writing during the semester which was uploaded to individual portfolios in the form of weekly responses to the primary texts. Students were given basic training on WordPress during the first lecture and many participants would go on to use this platform for their blogs, although a small number of alternative blogging sites and CMS were also used. Examples of student work each week was re-blogged on a private module website and students had the option to make their own blogs either public or assessable only to me and their classmates. To facilitate peer-to-peer review, students were required to find and comment on two other pieces of work each week. Because of the authentic deployment of these written responses, students had to share links to their writing to the target audience of class peers through tools such as Twitter, Facebook, RSS or semi-structured blogging circles. In addition, they had to work in groups to produce a creative reimagining of one of the primary texts on the courses. These took the form of films, websites, eBooks, animations, and poetry which could be integrated into their personal blogs for final assessment.

At the beginning of the semester a survey was administered which asked students to evaluate the differences between Blackboard and social media for educational purposes; a similar survey was delivered at the end of the semester to gauge students’ perceptions following the course. Both surveys relied on an array of structured and unstructured question types. At the end of the semester, small discussion groups were held with students in order to observe reactions to the use of an authentic digital learning environment, and student writing and communication within this environment was analyzed with reference to the stated intended learning outcomes for the course.

Findings & Discussion

Two surveys were delivered to the 56 students in Literature in Our Lives to measure their perceptions of integrative social media usage in the classroom at the beginning and end of the semester. Both surveys included two questions which aimed to gather insight into students’ comparative understanding of the affordances of traditional LMS and social media: 1) ‘Which of the following functions in Blackboard do you believe are better than other social media websites?’ and 2) ‘Which of the following functions of social media websites do you believe are better than Blackboard?’ For both questions students had a list of six affordances and were able to select multiple answers:
Results from the first survey at the beginning of the semester demonstrate that many students possessed a clear and well-defined understanding of the potential role of digital media in education. Respondents considered Notification of Grades, Work Submission, and Announcements as tasks best achieved by LMS and Group Collaboration, Class Communication, and File Sharing as best achieved through social media channels (Table 1).

Table 1: Beginning of Semester: Which Platform is Best?

While File Sharing received a close split of 16 responses favoring social media and 14 responses favoring LMS, the spread was much more pronounced for several categories: for Group Collaboration, 28 respondents chose social media versus only 2 for LMS; for Class Communication, 27 respondents chose social media versus 3 for LMS; and for Work Submission, only 4 respondents chose social media while 27 chose LMS.

Following a semester of using social media as an integrated element of learning design and assessment, the second survey captures several changed perceptions. Most notably, by the end of the semester an equal number of students indicated that social media and LMS were most suitable for Work Submission, suggesting a growing awareness of how social media could be used effectively to submit work for assessment (Table 2).
The majority of students selected fewer categories than in the first survey, showing a more focused indication of their preferences. Although the preferred channel of engagement in the remaining categories remained the same as in the first survey results, the data further emphasizes student perceptions that Notification of Grades is still best achieved through LMS (zero students selected social media in this category) and reflects a growing awareness of using social media for File Sharing (16 against 14 at the beginning of the semester as opposed to 14 and 6 at the end). Students' perceptions on the educational use of social media is thus not altered dramatically by its inclusion in teaching design; however, there is evidence of modest shifts in perception particularly related to the possibilities of submitting work through a social media channel.

Furthermore, the survey results do not suggest that students found the increased use of social media to be detrimental to the learning environment, and further focus group discussions suggest that students found the use of an authentic digital learning environment to be a positive experience that improved both engagement and content understanding. As one student described:

*I do believe digital media can change students’ perspective on as well as approach to literature and most importantly, help them make sense of the art of reading so that it no longer seems like a daunting process.*

There were, however, a number of objections. One student suggested that ‘digital media is for entertainment’ while another student felt that the walled structure of LMS played a significant role in gaining and maintaining student attention:

*Blackboard, even though a bit bland, keeps the students focused on their tasks rather than wasting time reading about Kayne West and Kim Kardashian’s wedding plans.*
Several students sensed that the ubiquity of Blackboard within higher education is a key element of its value: ‘I think Blackboard is still a major platform in education, but if more courses are using digital media, it could be more convenient.’ This point was echoed by other students, who thought there might be a tipping point for the wide-scale move away from propriety LMS, although perhaps that tipping point has not yet been reached.

Serendipitous & Collateral Learning

This data does not represent significant shifts in student perception of social media as a learning tool; however, the assessed written work indicates some advances in metacognition. There can be a secondary objective in pedagogical design that moves beyond the intended learning outcomes. Literature in Our Lives was not digitally-themed in its content, and it was important that the digital components didn’t overpower the literary studies focus. While the topic of the learning objectives in literature pedagogy is far beyond the scope of this article, this research does flag a number of interesting points about the particularities of literature education within a digital environment, and particularly within an ESL context. These relate largely to the way in which students behaved within the authentic platform utilized, and the serendipitous or collateral learning that their work demonstrated.

In their portfolios, several students began to take on unique private personas: one student signed off posts like a letter with ‘Lyterally Yours’ (Figure 1)—a pun on ‘literal’ which draws attention to the role of the reader and critic in literary analysis—and another began a tagging convention using ‘Say Me’ and ‘Say You’ to distinguish between posts determined to be more reflective versus more analytical (Figure 2). In both cases, the students’ behavior in the digital environment reflected a unique understanding of the role of the critic in literary studies and the relationship of the critic both to literary history and to a present audience.

Figure 1: ‘Lyterally Yours’ and the relationship between reader and writer.
Student use of tagging and categories also reflected unique collateral learning effects that registered their individual understandings of the literary texts in a critical/analytical matrix not otherwise observable in a formal essay. Eleven students organized their posts into the three genres of ‘Fiction,’ ‘Poetry,’ and ‘Drama’ through either top-level navigation, or tagging, a seemingly obvious and appropriate information architecture, which, nevertheless, represents an important awareness of genre form in an ESL literature course (Figure 3).

Tagging conventions also regularly revealed interesting insights. For example, one student used the tag ‘sexual awakening’ for posts on *Brokeback Mountain*, *Interpreter of Maladies*, and *As You Like It*, indicating a clear sense of comparison between these three works which appear on the surface to...
have little in common (Figure 4). Another student was evidently drawn to the role of history within the texts studied, using ‘past’ and ‘present’ as a tagging convention; both tags appear, appropriately, in a post on *The Cherry Orchard* (Figure 5). In total, 21 students expressed metacognitive awareness of the relationship between texts through tagging conventions and information architecture.

Whether these digital performances reflect new learning created by the platform or record learning that would have otherwise gone unnoticed remains unclear. However, while operating in this way students were able to demonstrate skills and competencies that would have gone unnoticed in a regular delivery, and were rewarded for them appropriately. They were able to demonstrate the way in which they thought about literature using affordances unavailable outside of an authentic digital learning environment. Perhaps unexpectedly, three students turned their blog into a professional portfolio, which included relevant sections on education and work experience and portrayed the blog entries as evidence of high levels of English-language proficiency. What began as a form of written assessment had thus been made truly authentic with relevance and meaning in the professional world.

Conclusions & Recommendations

Jenkins (2009) emphasizes the need for a participatory culture in social media, with students learning how to effectively and productively participate in the vast digital world around them. Within such a learning environment the design of content delivery, collaboration, and assessment allows for
and rewards collateral and serendipitous learning. Using tools that already exist within the frame of reference for the student and are perhaps already being used by them is (as research on authentic tasks and authentic materials has demonstrated) messy, unpredictable, and potentially frustrating for student and teacher. However, it remains a necessary component of helping students understand how the content they are studying relates, even if only superficially, to a world that continues to exist outside of the lecture hall. While propriety LMS have been shown to be valuable tools in education, there is evidence that authentic digital learning environments—comprised of tools that students will continue to use beyond graduation—allow them to perceive new connections between content material and lead to helpful collateral and serendipitous learning which can contribute to final module assessment and professional development.

Bibliography


About the Author

**Allan Johnson** is Lecturer in English Literature at the University of Surrey and previously Assistant Professor of English at City University of Hong Kong. He is the author of Alan Hollinghurst and the Vitality of Influence (Palgrave Macmillan, 2014) as well as articles and chapters on an array of modern and contemporary writers including James, Stoker, Conan Doyle, Shaw, Forster, Woolf, Eliot, Cather, Waugh, Doctorow, and Hollinghurst.