

Authentic Assessment and the Internet: Contributions within Knowledge Networks

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Abstract: This paper identifies the importance of assessment for student learning, especially 'authentic assessment'. While recognising that authenticity can be judged against the alignment of assessment with learning goals, and of assessment with real-life activities, the paper asserts a new element: the degree to which the Internet is part of the everyday lives of most university students. Thus, a third form of authenticity emerges when assessment is aligned with students' use of the Internet for simultaneous informal and formal learning, and the nature of the Internet as a place of active knowledge networking, involving co-creation of information and knowledgeable content (a consequence of the emergence of Web 2.0). The paper argues that developments in assessment using the Internet will only be authentic if they take account of the way the Internet functions outside of higher education, rather than seeing it as an educational technology divorced from its own authenticity.

Developing Authentic Assessment

For some years now, higher education has been dominated by discussion of the central role that assessment plays in the learning lives of students and, in the words of Gibbs, it is now well established that "students are increasingly strategic...and may only study what is assessed" (2006a: 20) and that "assessment frames learning, creates learning activity and orients all aspects of learning behaviour" (2006b: 23). Thus the general tendency in recent years has been to reject, or at least provide significant alternatives to, assessment as a post-learning 'check' on the extent and quality of learning. While such summative assessment has by no means disappeared from universities and schools, it has – to a greater or lesser degree depending on disciplinary and institutional contexts – been moderated by much more attention to assessment that aids in the formation of learning outcomes. Moreover, it is now reasonably well recognised, at least in theory, that whatever the kind of assessment, formative or summative, students are strongly guided by the assessment regime in determining how to spend their time when engaged in actual learning activities. As a result, effective teaching and learning is thought to require "constructive alignment" (Biggs, 1996) between what the teachers are doing (instruction), what the students are doing (learning), and the critical interface between those two poles in the educational dyad, the assessment by instructors of that learning.

The desire to develop more sophisticated approaches to assessment, whether for the purposes of more valid measurement or for more effective promotion of learning, can probably be summed up in the phrase 'authentic assessment', which has wide currency within educational research, though perhaps is less well known in other disciplines and practices. Authentic assessment does however present problems, not the least of which is the considerable variety of understandings of what constitutes 'authenticity' in assessment (for example, Petraglia, 1998; see also Gulikers et al., 2004). Broadly speaking, while authentic sometimes serves as a synonym for 'better', most writers on learning emphasise two key qualities by which assessment might become 'authentic'. First, assessment is said to be authentic when it matches the key goals of the learning experience – when there is alignment with the learning outcomes which have been set by the teacher (Torrance: 1995): as Murphy states, "[t]he challenge for all educators is therefore to seek ways to marry curriculum and assessment...in relation to priority goals" (2006: 44). Second, assessment is said to be authentic if it approaches the conditions of 'real-world' practice for which a university education is meant to prepare students. For some educational researchers, this alignment is principally concerned with the preparation of students, perhaps in keeping with some acceptance of, or loyalty to, the notion that universities owe allegiance to society (Van den Bergh, 2006); for others it simply reflects their belief that students are better motivated, more engaged and thus more likely to learn when they sense some purpose or

extension of their learning beyond the classroom into real life (Darling-Hammond and Snyder, 2000; Herrington et al., 2006; Herrington, 2002)

Both of these ideas about authenticity have been widely expressed, either alone but, increasingly, as equally important and shared aspects of authentic assessment (e.g. Clegg and Bryan, 2006: 216-217). Yet, curiously, it is much less common to find acknowledgment of the underlying contradiction between the two understandings. Essentially, where authentic assessment is concerned with the 'true' alignment between learning outcomes, processes and assignments, of the kind most clearly articulated by Biggs and enthusiastically adopted by outcomes-based educational proponents, the test of authenticity is, in fact, divorced from the real world as much ever. Where authentic assessment is concerned with real-life practices outside of the university or school, then true alignment occurs by emphasising the uncertainty, complexity and situatedness *within* that non-school context. Citing Brown and Duguid's work on situated learning, Jones and Asensio stated that "Authentic practices are ordinary practices as opposed to the 'ersatz' activity found in a school" – implicitly setting up a contest over the value of the educational setting and thus exposing the theoretical conflict between these two modes of understanding 'authenticity' (2002: 259). It is interesting to note, also, that one of the challenges for educators in creating authentic assessment is the need for both students and teachers to suspend their disbelief in the artificially real nature of 'real-life' tasks within university contexts so that they may be both authentic to the context of education and the context within which learning might later be applied (Herrington, Oliver, & Reeves, 2002).

In the everyday world of higher education, this contradiction is resolved with relative ease, probably of more interest to philosophers of education than practitioners. However, it usefully establishes that 'authenticity' is no more a panacea for the construction of good assessment than any other broad concept. Indeed, all that authenticity reveals is that there are inevitably competing requirements on educators in developing assessment tasks and techniques which emanate from a variety of sources, such as sophisticated theories of learning and from the pragmatic needs of industry and employers seeking 'job-ready' graduates. What matters most is the context within which individual judgments about the authenticity of assessment are made. With this more nuanced understanding of authentic assessment in mind, I will now turn to the question of how the Internet is affecting education and how it might be both part of the solution in the quest for authenticity in assessment, and also serve as yet another context which *demand*s changes in assessment practices so as to align them truly with the learning situation of students themselves. To do so I will first reflect on the complexity of the contemporary Internet so as to understand better the challenge that it presents.

The Internet: a new source of authenticity

One of the challenges for all Internet users, and educators seeking to make active and sophisticated use of the network for learning and teaching is that the Internet produces and distributes information and affords collaboration and communication for several different – and implicitly contradictory – purposes all at once, through the same interface. The Internet has become interwoven with every aspect of social, cultural, political and economic life in advanced societies and no longer operates as a medium primarily designed and understood for scholarly or knowledgeable exchange and interaction. It is not just everywhere (at least in more developed nations); it is everything. More significantly, it is everything all at once, in the sense that an Internet-connected person uses the same screen for multiple activities at the same time, but also finds – even when focused on just one 'window' on the world – co-mingled information, activities and attractions which butt up against one another without clear demarcation. Searching Google, for example, for information about online learning can produce, variously, and with no real sense of differentiation, links to: online courses in which to enrol; scholarly analyses of online learning; reflections by students about online learning; books on the subject sold through Amazon; technologies for implementing it; conferences for online educators; and so on. Following those links can involve reading from the web, writing to the web, installing software, joining communities, storing information, creating information, tagging information and more. This situation is not at all how educators first imagined the Internet when thinking of it as form of virtual classroom (either a virtual lecture theatre, or virtual tutorial room) through which, in a way relatively divorced from any other considerations of the Internet's social utility and affordances, education might be remade through online learning (see Allen and Long, 2009).

The two key differences are that, first, the Internet is the site and means for very significant amounts of informal learning, outside of organised education, in a manner that embodies the assumptions of the most significant

Internet developers and proponents about human curiosity and learning as a natural state within widespread information exchanges. Yet, at the same time, the Internet is increasingly home to formalised learning operations and activities, carried out under the supervision of educators and educational institutions, in pursuit of qualifications and accreditation, and organised in ways that constitute learners as ‘students’ pursuing formal outcomes with consequent assessment of achievement. Second, the Internet marries together the acquisition, consideration, further circulation and new production of information and knowledge in ways that position Internet users as multiply active knowledge networked ‘producers’ (producers / consumers) (Bruns, 2008). In this situation, the Internet is now as much about the co-creation of content, organised through informal and formal collaborations between users, as about either reading *from* the web, or writing *for* the web. The World Wide Web, as networked learning promoter Richardson terms it, is the “Read/Reflect/Write/Participate Web” (2003:133). Indeed, after the initial enthusiasm to embrace the term Web 2.0 to describe these developments (e.g. Allen, 2008), it now becomes clear that the best way to appreciate how the Internet operates at the moment is to conceive of it as *social media* – media, in the sense that it involves the production, circulation and reception of content and also in the sense that it mediates our acquisition and expression of knowledge in the world; and social, in the sense that none of these mediated activities stands outside of networks of engagement with other people (see Deuze, 2007; Bruns and Bahnisch, 2009).

While there is no evidence to sustain the excessive generalisations that younger people form a distinct and digitally sophisticated ‘net generation’ (Kennedy et al. 2009), nevertheless it is clear that the more and more university students use the Internet extensively in ways that make them part (however tentatively) of knowledge networks and informal learning outside of the education system, there more there will be a very different kind of approach to the Internet when they then encounter it within university (e.g. Franklin and van Harmelen, 2007). “Increasingly, students come to university education already involved in knowledge networking” (Allen and Long, 2009) and thus assessment – which both motivates and tests acquisition and presentation of knowledge, is itself becoming part of ‘knowledge networking’. This situation provides a new challenge for designing online assessment that is authentic, not just for educational goals and real-world work contexts, but to the life experience of people already involved – however deeply or superficially – in the Internet as co-created knowledge system. Yet it is also true that the learning potential of the Internet is, for many students, increasingly divorced *from* the formal education system which has, as yet, been unable to embrace its pervasive use, especially in the secondary school system (see Greenhow and Robelia, 2009). This blend of enthusiasm for, and yet disconnection from, ‘learning via the Internet’, creates new challenges for online assessment.

Authentic Assessment for Internet-enabled Learning

E-learning pioneer Robin Mason commented in 2001, that there is “confusion” about online assessment, because the term can include anything from sophisticated automated systems which effectively absent the teacher from direct engagement with students all the way through to highly individual engagements between students and teachers, and various forms of collaborative or resource-based assignments which fall somewhere between these two extremes (2001: 30). Moreover, there is a strong sense that, as well as being marked by confusion about the term, there has been only limited engagement with the diverse possibilities of the Internet for student assessment. In terms of practice, a survey of Australian universities from 2006 shows that, aside from online quizzes and the use of the Internet by students to submit otherwise traditional assignments, there was almost no other kind of assessment used. Nearly 44% of academics surveyed did not use the Internet at all for assessment (Byrnes and Ellis, 2006). More worrying, a recent analysis of research in this field concluded that the work done, in more than a decade, has “mainly focused on instructors’ assessment of online discussion forums or computer-assisted testing in a highly structured environment with a narrow focus on multiple choice or the true-false types of questions” (Khare and Lam, 2008: 383; see Gulati, 2008 and Walker et al., 2008 for examples of each.)

Most work on online assessment has been primarily concerned with translating to the Internet existing approaches from traditional educational settings, either because they have to be (for fully online students), or because they are more efficiently and effectively performed online (whether for campus-based or distance students), or because they are necessary to ensure that other innovations in online learning (such as a constructivist-inspired emphasis on student-centred discussion) can be realised effectively through the mechanism of assessment (see for some recent examples, Arend, 2007; Buchan and Swann, 2007; Pollanen, 2007; Birch and Volkov, 2007; Morgan and Bird, 2007). This work is undoubtedly important and relevant to the general development of assessment approaches which fit best with the nature and purpose of higher education, but it often lacks a deep appreciation of

the Internet. Mostly, scholarship of online assessment has not begun to grapple with the possibility that the Internet is not, in large measure, a mechanism for managing the traditional relationship of students and learners but a distinct social environment – increasingly interwoven with everyday life.

The next phase of development in online learning will involve finding ways to utilise the tools of social media – the so-called Web 2.0 technologies of collaboration, distributed cognition, and content generated and sharing (e.g. Fitzgerald and Steele, 2008; Franklin and van Harmelen, 2007). These are not, however, tools which exist primarily for, or in the socially situated spaces of, education. By and large, universities – which were at the forefront of harnessing the World Wide Web for learning in the 1990s – have fallen behind the rapid dispersion and growth in use of social media. While much is written about social media services and applications, little is written about what their key features are which might enable *assessment*, authentic to learners' existing appreciation of the world of social media.

Three such features are worth summarising here to enable the main conclusion of this paper to emerge. First, social media demands and assumes an audience, an audience far broader than just the students in a particular course or unit of study; whether anyone actually reads or views the content which might be produced online is less important than the re-alignment of contributions away from the private and into the public domain. Second, social media fragments and disaggregates the tasks involved in knowledge work, sharing them in time and space, between people (Allen and Long, 2009), in ways that are quite distinct from many of our assumptions about how students should, as individuals, learn and behave as learners. Third, social media disrupts the boundaries between personal communication, which has always been associated more with informal learning, and that of mass, or collectively addressed, communication, the basis for formal learning (Luders, 2008), thus enabling interaction between informal and formal learning in new ways. These features, it should be apparent, are neither positive nor negative in their own right: but because the Internet as it is now experienced destabilises some of the foundations of educational practice, whatever the valence of social media, education cannot proceed without accounting for it.

Conclusion

Most previous discussions of online assessment called for changes or developments for one of two reasons. First, there was the desire to make work some potential within traditional education which was forestalled due to the logistic difficulty of accomplishing it without the Internet; this approach can be seen in the enthusiasm for computer-assisted testing. Second, there was a desire to assess a new mode of learning (online learning focused on computer-mediated communication) in ways that reflect that learning and which, therefore, are only secondarily concerned with the network's affordances. However, my approach is to suggest that we focus on the Internet itself, as a place of knowledge networking, and look to the possibilities afforded for assessment by this emerging form of socially mediated knowledge work. The answers to be found there will naturally vary between disciplines, courses and the like depending on the abilities and aims of both students and teachers. However, what will underpin the effective further development of the Internet as a mechanism for assessment is the commitment, first, to the idea that students will be motivated and engaged by what they do in online assessment (and thus materially learn from it) when the types of assessed tasks, the processes by which they do them, and the manner in which they are circulated online – along with other knowledge – are authentic to the way the Internet functions, as well as to how we might want education to function.

Social media, which is the best way to understand the evolution of the Internet in the era of Web 2.0, provides the core possibility for authentic assessment. First, it creates the cultural sensibility for our knowledge work to be done in networks (with and for collaborators / audiences); second, it makes available, through numerous technologies and services, the channels by which networked public knowledge production can occur. However, it also provides the core challenge. Since this kind of knowledge work is becoming the norm, *without* a social media / Web 2.0 approach to assessment, traditional approaches (essays, tests, student-centred discussions and presentations) will begin to appear *inauthentic* if they do not, to some extent at least, recognise and embrace Internet-enabled knowledge networking. Thus, assessment will increasingly involve students contributing to the Internet by both participating in and presenting via knowledge networks: the challenge will be, given the seamless blend of informal and formal learning online, to resolve contradictions between the various ways by which we might judge assessment to be authentic, neither abandoning our existing foundations in curriculum and real-world

orientation, nor by artificially (and inauthentically) constraining the operation of social media within university education.

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