



Decisions and designs for building enterprise learning systems within an enabled learning paradigm: The case of third party technologies

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Student learning data is now a currency of value for both our educational institutions and the increasing number of third party providers that complement and extend the university learning management system. Detailed awareness of the data management practices of these providers is of increasing relevance to the governance of enterprise learning system design, and in parallel educators need to be cognisant of the core data practices of third party technologies that they deploy within their teaching environments.

Keywords: Third party technology, no-fee technology, enterprise learning systems, governance

Introduction

The enhancement of enterprise learning spaces requires a framework of evaluation for the purpose of establishing the pedagogical imperatives for the learning environment. The proliferation of enterprise level third party software development has opened up unique and diverse practices in learning and teaching (Hallam, 2012). Ideas of innovation have also been closely aligned with the use of technologies that have been socially marketed as both *disruptive* and a desirable personal commodity, and so educators and academic managers that identify themselves as innovative may make additional enterprise-level integration demands to support an innovation agenda as part of university practice. Enterprise learning environments, however, require careful management to ensure that both staff and students are able to carry out activities in a reliable, interconnected and supported space (Keppell et al, 2011). Risk management in an era of enhanced innovation, which often means applying new third party technology, carries with it some consideration that academic and technology managers ought to both address. The integrity of enterprise learning environments and the ability to provide a pedagogically cogent learning experience needs to be balanced against an agenda of strategically planned experimentation and then evaluation that advances learning and teaching practice.

Who is designing the enterprise learning environment?

Assertive technologists, practitioners and administrators have become expert at negotiating with relevant university domains to drive specific technical enhancements that are not necessarily focused on enterprise learning and teaching work-flow. The tensions start to emerge when requests are made for the enterprise-level inclusion of third party and licenced no-fee products, which can include services such as multiple and diverse publisher integrations with the LMS, that can take staff and students into what is in effect an alternate LMS, that transacts high stakes summative assessment independent of the university. The perception that licenced, no-fee services are 'cost-neutral' to a university pervades these requests and resonates as a sensible investment amongst decision-makers. In turn, IT departments, who are service-oriented and financially constrained, can approach these requests as potentially good solutions. Resisting these requests, as a process of evaluation, has become increasingly contentious because of the emerging availability of enterprise-level third party technologies, resulting in risk-management practices being interpreted negatively; particularly with products that are socially marketed, have significant social presence, and are new to enterprise level integration. Stringent risk management practices and innovation are not necessarily good companions (Keppell et al, 2011) but they are necessary to ensure a due-diligence, evaluation-based approach to designing enterprise digital learning spaces. The question then rests as to who is designing the learning environment? To answer this question satisfactorily it would be necessary to include many stakeholders. This in-itself reveals complexity that includes governance, user-expectation, pedagogy, vendors, risk, finance and a further question of who owns learning?

Discussion

Who owns learning?

Educators are eager to locate learning and teaching designs within a space that meets the demands of learning. Many contemporary collaboration tools also happen to be no-fee technologies, which present a *win-win* for cash-strapped universities. The often socially salient technologies are also easy to access with or without integration and so, creating curriculum experiences outside of a managed learning environment is entirely within the scope of individual teachers. The problem with this approach, however, is that accessibility, privacy and identity linked data footprints are being compromised. Students should own their learning profile, however with such models it is tacitly transitioning ownership via data transactions to third parties external to the institution. And if students expect *us* to care about them then perhaps the compromise ought to be a greater awareness of risk, and its management, associated with teaching using the external technologies. However, the appeal and benefits of third party, no-fee technologies is that it enables universities to provide the connectivity and agility that learners want and it posits itself as a solution to financial constraints. It also introduces the notion of *seamless user experience* by using technologies that already familiar to learners prior to them entering a particular institution.

The university student and staff communities are demographically desirable targets for the provisioning of no-fee web services, where sustainable revenue is derived from aggregated services and an advertising income model. Under this model, over the last decade, services offered have advanced from basic email to web conferencing, social media and collaborative office personal productivity services (Vaidhyanathan, 2009). This strategy of “migratable” services, where a large user base will move from service to service within an ecosystem without giving deep consideration to the consequences of moving between these services, nor the terms of service applicable to the usage context, is now being exploited in Universities, and is likely to further drive ecosystem lock-in. Acceptance of migratability within an ecosystem is such that most users would not consider it unusual that a search engine company is now in the web TV business, and a key provider of collaborative learning technologies for universities. The disparate products and technologies that are able to be linked within an overarching migratable ecosystem, continues to broaden and strengthen the contextual richness of the user experience. The advent of ‘app store’ extensions to these services has multiplied the value of the technology suite available to the university community. Part of the reason for this has been because of the need for learning engagement. The historical development of LMSs has seen few differences between providers with regards to tools for designing learning collaboration, with a common suite of tools: forum, chat, document sharing, quiz, assessment submission, and a focus on content management (Dalziel, 2013); these constitute a critical part of learning design, but not necessarily learning engagement. Third party services are typically complex and described in *terms of service* documentation that can be rapidly changing and not fully understood by the staff who are using the technology and responsible for the student learning experience. Informed vetting of the associated risks of data handling, privacy and security practices of ‘app store’ and other extended third party systems is beyond what can be reasonably expected of teaching practitioners, and “the process of education” (Dalziel, 2013) however, the affordance of these technologies could not be reasonably matched by fully university funded and managed technologies that more completely uphold the teacher and institutional oversight that has previously characterised the academic learning exchange.

Additionally, for teaching staff, the affordance of the third party technologies, expressed in the portability of information, flexibility of collaboration, and fluency of communication, has progressively engendered a trust of these services. Staff have ‘bought into’ the concept of no-fee and third party commercial services being intrinsic to the university information dynamic, and as a consequence the display of trust and acceptance by staff communicates a message to *our* students that trusting your learning exchange, in the form of personal information and communication, to no-fee services is an acceptable thing. In fact, in some cases, personal technical allegiances can be so extensive, that staff adopt a somewhat evangelical approach to the promotion of no-fee services with their students. This mindset has been questioned (Vaidhyanathan, 2009), and as universities now place greater emphasis on all dimensions of student data for their own analysis purposes, it is likely that the separate and explicitly commercially oriented data management practices of licenced and no fee services will come under greater institutional scrutiny.

Third party technologies- the role of Learning Analytics

The aggregation of data made possible by increasingly sophisticated and interconnected university learning environments, has given rise to the burgeoning field of Learning Analytics (Siemens, 2012). Where contemporary large data analysis techniques, are able to be applied to the inherently complex nature of the online learning experience, and provide an evidence basis for educational decision making. Universities have traditionally invested in the learner experience, and now are beginning to explicitly invest in the aggregation, management and analysis of learner data. Learner data is progressively becoming a currency of value to both educational institutions and the third party providers. This trajectory is considered likely to continue (Chatti et al, 2014), as increasingly sophisticated analytics will become available with predictive and personalised capabilities focused on individual learner support across a wide range of factors that underpin academic performance and student success in University education. An important ongoing aspect of the implementation of Learning Analytics in University systems is the challenge of upholding ethical practices and ensuring transparency of process to the university community. Particularly as learning *is* or should be owned by the student. The maintenance of ethical data practices within an institution can only be sustained with a staff body that is informed and engaged with data practices and the risks associated with abuse of the ethical management of both student and staff data. This practice must be extended to focus on how, to what extent, and under what conditions, licenced no-fee technologies are integrated within the university learning ecosystem. After all, the contemporary student expects *us* to care about them and their future (Worley, 2011).

Conclusions

Third party licenced and no-fee services introduce data management practices into university learning systems that require academic staff to transition to a more complete knowledge of the risks associated with such systems and the full responsibilities inherent in the technology choices made in the academic learning context.

Specifically, as university Learning Analytics initiatives are advanced, priority should be placed on ensuring that staff knowledge and understanding of data management practices of third party systems are a strong component of the development dialogue. Equally, institution-level decision making needs to be receptive and responsive to the academic voice to ensure that the LMS and its associated ecosystem as fully as possible meets learning and teaching requirements, and that the context of use of licenced no-fee technologies are bounded in a manner that best secures the responsibilities that educators have for their students.

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