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FUTURE CHALLENGES | SUSTAINABLE FUTURES
25 - 28 November 2012 | Wellington | New Zealand

The Sapphire Vortex: blending virtual world machinima with real world commentary for effective learning of criminal law

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Traditional approaches to teaching criminal law in Australian law schools include lectures that focus on the transmission of abstracted and decontextualised knowledge, with content often prioritised at the expense of depth. This paper discusses *The Sapphire Vortex*, a blended learning environment that combines a suite of on-line modules using *Second Life* machinima to depict a narrative involving a series of criminal offences and the ensuing courtroom proceedings, expert commentary by practising lawyers and class discussions.

Keywords: blended learning, machinima, Second Life, criminal law, expert commentary

Teaching criminal law in Australian Law Schools

Writing in 1883, AV Dicey declared that nothing 'can be taught to students of greater value, either intellectually or for the purposes of legal practice, than the habit of looking upon the law as a series of rules' (Dicey, 1883). This attitude is manifest in the traditional approach to legal education. Like many disciplines, pedagogical practices in law tend to be dominated by the transmission of abstracted and decontextualised knowledge, with content often prioritised at the expense of depth. Several forces, both at an institutional and academic level, are at work in maintaining this as the status quo.

In 1992 the Consultative Committee of State and Territorial Admitting Authorities, headed by Justice Priestley of the Supreme Court of New South Wales, compiled a list of compulsory subject areas for academic legal study which individuals must complete in order to be admitted to legal practice. This list, which is known as 'the Priestley 11', comprises 'substantive law' areas such as criminal law. It does not directly affect law curricula. However, Australian law schools typically structure their degrees to accommodate the list so that their graduates may qualify for entry into legal practice. This is most easily discharged by means of the traditional model including content-focused lectures. A further impediment against change at an institutional level is the relatively low government funding for Australian law schools, which has been recognised as a significant impediment to innovation in the development of curricula and resources (Law Council of Australia, 2008). The lack of resources may make lectures a seemingly efficient means of educating the increasingly large classes in today's law schools.

There may be several impediments to changing the status quo operating at the level of individual academics. First and foremost may be that they know no better. It has been observed that: '[M]ost teachers uncritically replicate the learning experiences that they had when students, which usually means that the dominant mode of instruction is reading lecture notes to large classes in which students are largely passive' (Keyes & Johnstone, 2004, p. 539). In other words, 'if it was good enough for me, it is good enough for them'. In addition, for many law academics another barrier is lack of technical knowledge and literacy, and/or commitment to learn new technology. There may also be a perceived threat to academic freedom and autonomy and general 'academic inertia' (Middleton & Mather, 2008).

However, law schools like other areas in higher education, now operate in a time when there is a climate for change. Significant impetus for change has been provided by seminal reports criticising the traditional approach, both for its emphasis on the transmission of knowledge about legal rules and doctrine and the manner in which the law is taught (see, eg, Pearce, Campbell & Harding, 1987). The traditional approach also does not meet the expectations or needs of modern students. The current generation of learners are surrounded by ubiquitous information and merged technology, and deal with blurred boundaries between their work, study and social lives (Nelson, Kift & Harper, 2005). They generally want the flexibility of accessing their study materials in their own time and in their own way (McGarr, 2009), to allow them to juggle the demands of competing time commitments (Moreau & Leathwood, 2006).

The Sapphire Vortex: contextualising criminal law

At the Queensland University of Technology Faculty of Law criminal law is taught by way of two second year subjects, *Fundamentals of Criminal Law* (which covers criminal offences and issues such as jury selection and bail) and *Criminal*

Responsibility (which covers defences and issues such as parties to offences and attempts). Until 2012 the subjects were taught by traditional methods, involving a weekly two hour lecture and weekly one hour tutorials. These tutorials were dominated by advocacy exercises in which students presented submissions on a detailed scenario to the tutor sitting as judge. Accordingly, apart from the two students involved in any particular exercise, students in the two subjects occupied a mostly passive role in the teaching and learning approach. This was not well regarded by many students, who indicated by way of feedback that they preferred more opportunities to practise problem solving and applying the abstract and decontextualised principles they learnt in lectures.

From 2013 the two subjects will adopt a blended learning environment that will include an on-line computer program called *The Sapphire Vortex*. This program will be a suite of fourteen on-line modules, accessed via the university's Blackboard Learning Management System. All fourteen modules utilise *machinima* – computer graphics imagery created with the use the *Second Life* virtual environment rather than costly professional software or professional programming. The central element of the program, which is featured in the first module, is a 15 minute machinima video that depicts a succession of events that take place one night at a night club, the Sapphire Club. These events commence with a rape and progress to include a glassing, a homicide, a stabbing, and drug and property offences, in a connected narrative (see Figure 1). It also portrays facts that raise issues such as self defence, provocation, diminished responsibility and intoxication. In this way the narrative covers every topic covered by the two criminal law subjects.

Figure 1: scenes from the main video

This main video is complemented in the first module by machinima video depicting ensuing courtroom proceedings including an arraignment in which the charges against the three main protagonists are read in court and jury selection.

The remaining thirteen modules follow a similar format, incorporating prescribed readings, self-test multiple choice questions and machinima videos which depict barristers making submissions in court on various points of law relating to the various offences, defences and other aspects of law studied in the two units (see Figure 2). These videos will facilitate class discussion of the law, with students preparing the judge's rulings on the barristers' submissions.

Figure 2: courtroom scenes

Throughout the modules the machinima videos are accompanied by videos of a real life crown prosecutor and defence barrister who provide expert commentary on the events at the night club and the ensuing court proceedings, including trial techniques and tactics.

Machinima-facilitated narrative enhancing learning in context

Knowledge acquired in the absence of context – the frequent product of lectures as part of a traditional approach to legal education – typically remains 'inert knowledge' that is memorised by students for exams but quickly forgotten thereafter, rather than being retrieved and used across contexts (Hasselbring, 2001). By contrast, when a learning and teaching approach involves students in addressing multiple real world problems, the transfer of new knowledge and skills can be enhanced (Spiro, 1991). It has been recognised that representations of real world situations in digital media such as video can form the basis for focused discussion (Colasante, 2011). Video used as part of a learning environment that enables discussion promotes active learner engagement.

At the same time many disciplines recognise the value of storytelling in education (Clark & Rossiter, 2008). Stories can draw audiences into their plots and settings, creating perceptual, emotional, and motivational opportunities for learning (Rowe, McQuiggan & Lester, 2007). Storytelling can not only convey important information, it can provide 'contextual cues that facilitate recall of that information in situations in which it is likely to be applicable' (Ferguson, Bareiss, Birnbaum & Osgood, 1992, p. 99). A narrative may help learners to 'create meaning, reduce cognitive load involved in navigating through information, and support cognitive and imaginative engagement' (Paulus, Horvitz & Shi, 2006, p. 356). An appropriate story can help students to process new information by relating the material being studied to concepts and situations with which they are already familiar (Ferguson et al, 1992).

The use of narrative as a means of learning is not new in legal education. From Shakespeare's *A Merchant of Venice*, Dickens' *Bleak House* and Harper Lee's *To Kill a Mockingbird* to today's John Grisham books and the films based on them and the several *Law and Order* franchises, literature and film abound with examples of stories that can serve, and have served, as useful touchstones or exemplars for the examination of legal doctrine. None, however, can be said to be deliberately created for the purpose of facilitating the discussion of particular points of law.

The traditional approach to teaching and learning law frequently sees lectures supported by tutorials in which students are required to answer esoteric theory questions or provide advice to artificial John/Jane Doe problems (Webb, 1996). While the latter generally involve short fact scenarios custom created to allow discussion of the relevant legal principles, they are normally disconnected from each other and lacking in the detail.

Machinima like that used in *The Sapphire Vortex*, on the other hand, involves 'real world filmmaking techniques being applied within an interactive virtual space where characters and events can be either controlled by humans, scripts or artificial intelligence' (Academy of Machinima Arts and Sciences, 2005). Machinima involves the real-time rendering of an interactive environment in which the creator has a creative flexibility and total control over visual representations of characters, events and settings (AMAS, 2005). The *Second Life* virtual environment, with its ability to customise avatars, artefacts and environments, and to script the movement of avatars, facial expressions and objects, provides a rich canvas for customised storytelling and the simulation of realistic situations (Butler, 2012). These virtual characters and settings can be utilised to present tasks and critical information and thereby create an authentic learning environments online (Agostinho, 2006). The machinima in *The Sapphire Vortex* is used to create a dynamic, richly detailed narrative that provides a real world context and makes overt the connections between multiple topics spanning the two criminal law subjects, thereby creating an active, engaging and challenging learning environment.

Real world commentary lending an authoritative voice

The Sapphire Vortex utilises elements of a cognitive apprenticeship approach to learning – a translation of the situated learning framework of traditional apprenticeships with features including modelling, coaching, scaffolding and exploration – to teaching with practical classroom applications (see, eg, Brown, Collins & Duguid, 1989; Collins, 1991). Application of that approach to computer-based learning has had its critics, who have seen it as a further step removed from the traditional apprenticeship model or, as Hummel (1993, p. 15) once described it 'courseware becomes the learning environment and not the authentic situation'. Tripp (1993, p. 75) expressed a similar sentiment by observing that 'true expertise is learned by being exposed to experts'.

However, it is now widely accepted that computer programs can provide an effective alternative to the real-life setting without sacrificing the critical authentic context (Herrington & Oliver, 2000). Advances in technology and the ability of multimedia to effectively depict real world situations reinforce that view. Further, technology can provide the means of students being 'exposed to experts'. The inclusion of real world expert commentary on the machinima sequences by a practising Crown prosecutor and defence barrister serves a number of purposes as part of that approach. The expert commentary emphasises key theoretical principles in practice. In combination with machinima portraying the court proceedings, it also models analytical techniques. Finally, it provides an alternative method for engaging learners with the authenticity of the video, its relevance to real world practice and its relationship to their future professional identities (Perrone & Vickers, 2003).

Conclusion

It is a common experience in Australian law schools that criminal law is taught in an abstract, decontextualised fashion by way of passive transmissive lectures. However, as Lin, Hmelo, Kinzer and Secules (1999, p. 44) observed, 'technology, properly designed and used, enables us to realise reflective learning environments that were not previously possible'. *The Sapphire Vortex* represents an effective and engaging use of technology to provide students with an authentic context to their learning of criminal law. The use of *Second Life* machinima has enabled the creation of a dynamic and realistic narrative while the expert commentaries are a powerful additional strategy for promoting the convergence of theory and real world practice. It demonstrates not only leadership in adapting curriculum in a climate of change but also facilitates students' learning for their future careers.

References

Academy of Machinima Arts and Sciences (AMAS), *The Machinima FAQ* (8 March 2005) http://www.machinima.org.

Agostinho, S. (2006). Using characters in online simulated environments to guide authentic tasks. In A. Herrington & J. Herrington (Eds.), *Authentic learning environments in higher education* (pp. 88-95). Hershey, PA: Information Science Publishing.

Arslanyilmaz, A. & S. Pedersen (2010). Enhancing negotiation of meaning through task familiarity using subtitled videos in an online TBLL environment. *Turkish Online Journal of Educational Technology - TOJET* 9(2), 64-77.

Brown, J., Collins, A. & Duguid, P. (1989) Situated Cognition and the Culture of Learning. *Educational Researcher* 32.

Butler, D. (2012). *Second Life* machinima enhancing the learning of law: Lessons from successful endeavours. In M. J. W. Lee, B. Dalgarno & H. Farley (Eds), Virtual worlds in tertiary education: An Australasian perspective. *Australasian Journal of Educational Technology*, 28 (Special issue, 3), 383-399.

Clark, C. & Rossiter, M. (2008). Narrative learning in adulthood. *New Directions for Adult & Continuing Education* 119, 61-70.

Colasante, M. (2011). Using video annotation to reflect on and evaluate physical education pre-service teaching practice. *Australasian Journal of Educational Technology* 27(1), 66-88.

Collins, A. (1991). Cognitive apprenticeship and instructional technology. In L. Idol & B.F. Jones (Eds), *educational values and cognitive instruction: Implications for reform.* (pp.453-494). Hillsdale, NJ: Lawrence Erlbaum.

Collins, A., Brown, J.S., & Holum, A. (1991). Cognitive apprenticeship: Making thinking visible. *American Educator, 15*(3), 38-46.

Dicey, AV. (1883). *Can English law be taught at universities?* cited by D. Sugarman. Legal theory, the common law mind and the making of the textbook tradition. In W. Twining (Ed). (1986). *Legal Theory and Common Law*. New York: Blackwell.

Ferguson, W., Bareiss, R., Birnbaum, L, & Osgood, R. (1992). ASK Systems: an approach to the realization of story-based teachers. *Journal of the Learning Sciences*, 2(1), 95-134

Hasselbring, T. S. (2001). A possible future of special education technology. *Journal of Special Education Technology*, 16(4), 15-21.

Herrington, J. & Oliver, R. (2000). An instructional design framework for authentic learning environments. *Educational Technology Research and Development* 48(3), 23-48.

Hummel, H.G.K. (1993). Distance education and situated learning: Paradox or partnership? *Educational Technology*, 33(12), 11-22.

Keyes, M. & Johnstone, R. (2004). Changing legal education: rhetoric, reality, and prospects for the future. *Sydney Law Review, 26*, 537-564.

Laurillard, D. (2002). *Rethinking university teaching: A framework for the effective use of learning technologies* (2nd ed.). London: RoutledgeFalmer.

Law Council of Australia (LCA). (2008). *Review of Australian Higher Education Discussion Paper* Canberra: LCA.

Lin, X., Hmelo, C., Kinzer, C. & Secules, T. (1999). Designing technology to support reflection. *Educational Technology Research & Development*, 47(3), 43-62.

McGarr, O. (2009). A review of podcasting in higher education: Its influence on the traditional lecture. *Australasian Journal of Educational Technology*, 25(3), 309.

Middleton, A. & Mather, R. (2008). Machinima interventions: Innovative approaches to immersive virtual world curriculum integration. *ALT-J, Research in Learning Technology, 16(3)*, 207-220.

Moreau, M-P. & Leathwood, C. (2006), Balancing paid work and studies: working (-class), students and higher education. *Studies in Higher Education*, 31(1), 23-42.

Nelson, K., Kift, S., & Harper, W. (2005). First portal in a storm: A virtual space for transition students. In *Balance, Fidelity, Mobility: Maintaining the Momentum? Proceedings ascilite Brisbane 2005* http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/58_Nelson.pdf.

Paulus, T., Horvitz. B. & Shi, M. (2006). 'Isn't it just like our situation?' Engagement and learning in an online story-based environment. (2006) 54(4) *Educational Technology Research & Development* 355,

Pearce, D, Campbell, E. & Harding, D. (1987). *Australian Law Schools: A Discipline Assessment for the Commonwealth Tertiary Education Commission* (the 'Pearce Report') Canberra: AGPS.

Rowe, J., McQuiggan, S. & Lester, J. (2007) Narrative presence in intelligent learning environments. In Working Notes of the 2007 AAAI Fall Symposium on Intelligent Narrative Technologies, Washington D.C., 126-133.

Spiro, R., Feltovich, P., Jacobson, M., & Coulson, R. (1991). Cognitive flexibility, constructivism, and hypertext: Random access instruction for advanced knowledge acquisition in ill-structured domains. *Educational Technology*, 31(5), 24-33.

Web, J. (1996). Why Theory Matters. In J Web and C Maughan (eds), *Teaching Lawyers' Skills* London: Butterworths.

Acknowledgements

Support for this program has been provided by a Queensland University of Technology Learning and Teaching Grant.

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Please cite as: Butler, D., & Matthew, A. (2012). The Sapphire Vortex: blending virtual world machinima with real world commentary for effective learning of criminal law. In M. Brown, M. Hartnett & T. Stewart (Eds.), Future challenges, sustainable futures. In Proceedings ascilite Wellington 2012. (pp.174-178).