The challenge of maintaining the momentum

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Abstract

The characteristics and learning styles, as well as the implications for faculty development of 'Net Generation' students, has recently been closely examined across 14 Australasian Universities. Net Geners can be described as digitally literate, connected; social; prefer working in groups; achievement oriented; require structure and guidelines; crave interactivity; have short attention spans; are experiential, visual, kinaesthetic learners; and prefer working on things that matter. This paper considers the Australasian perspective including the findings of recent student and staff surveys undertaken across one university. It further examines an online roleplay simulation, the Mekong e-Sim. The students undertaking the Mekong e-Sim can be categorised as 'Net Generation' learners. This paper identifies how the online roleplay simulation effectively addresses the learning styles of Net Geners through engagement and successful development of higher order learning. Finally it reflects on the findings within the conference theme of maintaining the momentum of balance, fidelity and mobility.

Keywords

Net Generation; learning styles; online roleplay simulation; community of inquiry

Introduction

Educators are increasingly being made aware of the potential for interactive and collaborative learning environments (CLE) to effectively engage their students and to bring about meaningful and relevant higher order learning including the integration of critical thinking skills (e.g. Agostinho, Lefoe & Hedberg, 1997; Bereiter, 1992; Campos, 2001; Cecez-Kecmanovic & Webb, 2000; Cooper, 2004; Curtis & Lawson, 2001; Garrison & Anderson, 2003; Garrison & Archer, 2000; Harasim, Hiltz, Teles & Turoff, 1996; Muirhead ,2002; Paul & Elder, 2002; Palloff & Pratt, 1999; Tu, 2004, Yamashita, 2004). Educational technologies, which enable interactive and CLE include email, learning management systems, web communities, discussion groups, virtual classrooms and e-portfolios. Emerging CLE technologies include blogs, wikis, distributed communities linked by RSS, podcasts, and interactive synchronous learning (e.g. Cochrane, 2005; Dalal, 2003; Downes, 2004; Geoghegan & Klass, 2005; Godwin-Jones, 2005; Lamb, 2004; Richardson, 2005). However, there has been less attention given, until recently, with regard to the characteristics and learning styles of 'Net Generation' learners who make up an increasing amount of our student population within higher education (Lee, 2000; Oblinger & Oblinger, 2005; Tapscott, 1999). Consideration needs to be given to ensure that the learning environments and technologies being utilised address our learners preferred ways of learning in order to bring about effective higher order learning. Within this context, this paper profiles these 'Net Geners' and reports on the findings of recent university wide surveys and webinars (web-based seminars). It further presents a case study – the *Mekong e-Sim* - to illustrate the extent to which this online roleplay simulation addresses the characteristics and learning styles of Net Generation learners. Finally, it reflects on the findings within the conference theme of maintaining the momentum of balance, fidelity and mobility.

The Net Generation

The Net Generation, also known as the 'Millenials' have been described as students born between 1982–1991 who have grown up with technology. It is considered that this has had an impact on how they prefer to learn. They have been described as digitally literate; connected; social; prefer working in groups; achievement oriented; require structure and guidelines; crave interactivity; have short attention spans; are experiential, visual, kinaesthetic learners; and prefer working on things that matter.

Net Geners do not necessarily want more technology in their education as they use this extensively in their personal lives. It is also acknowledged that not all students studying in higher education are Net Generation students, there are an increasing number of non-traditional learners, and age may be less important than exposure to technology (Oblinger et al., 2005).

Earlier findings contend that Net Geners may be 'chaotic' learners. There is a contrast between the paper-based, formal, linear and teacher controlled approach with a 'screen based seemingly chaotic, constructivist and multi-faceted approach, where 'play' is central' (Lee, 2000). Further, it has been identified that Net Geners' exposure to interactive media has seen the development of a N-Gen culture. This culture includes a strong sense of independence and autonomy; emotional and intellectual openness; greater social inclusion with technology; free expression and strong views; innovation and an expectation of constant change and the ability to build or construct experiences; a preoccupation with maturity; a need to understand the assumptions inherent in software and to feel empowered to change those assumptions; a need for immediacy of communications; and authentication of everything in order to establish trust (Tapscott, 1999).

The Australasian perspective

The above characteristics and learning styles of Net Generation learners have been identified within Northern America. How relevant are they within Australasia and what are the implications for educators within higher education? The findings of surveys conducted by one Australian university, as well as a series of webinars looking at the Net Generation, have highlighted similarities as well as identified challenges for faculty and educators.

Surveys

Blended learning is the approach taken by the University of Adelaide, whereby the majority of its students learn in a traditional face to face format supplemented with online learning using the learning management system Blackboard (*MyUni*), which was introduced in 2001. Recent student surveys have been undertaken within the University of Adelaide. In 2005, 1472 University of Adelaide students across all year levels responded to one survey, which was part of a review of the use and effectiveness of *MyUni* and associated technologies.

With regard to digital literacy, 91% (n:1340) of the students either strongly agreed or agreed that they had adequate skills in using computer based technologies when they commenced their study. 75% of them either strongly agreed or agreed that email is an effective form of communication. 51% of them access their university email account every day, and 22% do so 2–3 times a week. 1167 students responded to questions with regard to the use of *MyUni* (students new to the University were exempt). 53% (n:619) of students strongly agreed or agreed that *MyUni* assists them in learning in their studies. Only 29% (n:338) of these students are required to use *MyUni* in all their courses of study, while 37% (n:432) are required to use *MyUni* for some of their courses.

In 2005, 157 University of Adelaide staff (academic and general) undertook a survey with regard to their use of *MyUni* and associated technologies. 49% (n:77) of the respondents were *MyUni* lecturers. 55% (n:42) of the lecturers consider that *MyUni* meets all of their online learning and teaching requirements.

Table 1 indicates what features enhanced student learning and what features they want more use made by lecturers. Further, it indicates what features enhanced staff teaching and what features they want to make more use.

Table 1: LMS student and staff responses 2005

LMS feature	% Responses			
	Enhanced Learning n:1167 Students	Enhanced Teaching n:77 Staff	Want more use n:1167 Students	Want more use n:77 Staff
Announcements	53	27	36	13
Staff Information	20	11	17	-
Course Information	54	-	34	-
Course Material	68	35	44	17
Discussion Board	23	17	30	-
Groups	10	11	12	12
Resources	18	7	30	-
Digital Drop Box	18	11	18	17
Quizzes	20	7	21	19
Send email	36	25	16	-
Assignment	47	14	30	17
View Grades/Gradebook	36	11	38	15
Virtual Classroom	-	-	19	10
Audio/video recording of lectures	-	-	41	10

Some features were not consistently surveyed across both staff and student surveys as indicated by [-]. However, Table 1 does indicate that generally students are more positive that staff with regard to what features enhanced their learning and what features they want more use of.

Students regard the use of audio/recording of lectures and the virtual classroom as a much higher priority than lecturers. This supports an earlier student survey, which was undertaken with regard to the University of Adelaide's pilot of a streaming server during 2004. 77% (n:179) of respondents either strongly agreed or agreed that they are in favour of the continued use of audio and video recording and streaming of lectures, which is made available to them via their *MyUni* courses. The main reasons cited for accessing the media resources were: they were unable to attend lectures; for revision purposes; trouble understanding the lecture, and to assist with an assignment (Baron, 2004).

Qualitative student feedback from the *MyUni* and associated technologies survey reflects many of the characteristics of Net Generation learners who do not necessarily want all of their study in an online format, but do want more effective and consistent use made of educational technologies which meet their learning preferences and active lifestyles. Qualitative feedback from staff supports the findings in Table 1 whereby staff are concentrating on using features that will assist them administratively and utilising innovative features for enhancing learning is a relatively low priority. The findings support Burdett (2003) whereby most staff, like students, are 'time poor' and have inadequate resources at their disposal to develop interactive, image rich quality online learning environments to support their face-to-face teaching.

Webinars

In addition, a series of three 'Educating the Net Generation' webinars has been held recently. The series was hosted by the University of Adelaide, in conjunction with EDUCAUSE and Learning Times. The first webinar, 'Is it Age or IT: First Steps towards understanding the Net Generation', was attended by over 230 people representing 14 universities from across Australia, New Zealand and Singapore. The findings of the webinar were that not all learners are Net Geners however it was acknowledged that universities need to focus on ways of accommodating various learning styles in their learning materials and approaches to learning. This included identifying the need to accommodate Net Geners' preference for experiential learning and learning in situational practice. There was also an appreciation by participants of the very strong social dimension to student learning.

It was further identified that learning content is no longer enough, students need to develop career-transcending skills, for example, information and media literacy, critical and systemic thinking and collaboration skills. This resulted in discussion between the keynote presenter Diana Oblinger and the webinar participants, including the identification of challenges for faculty and educators on how to unpack what is meant by career-transcending skills and reconcile these skills to the institution's graduate attributes. Highlights of further discussion included: In order to ensure that the needs of both the Net Geners as well as non-traditional students are met in higher education, there needs to be an understanding of the needs of all learners, acquiring the right skills and understanding learning styles. All students need real world examples; how to make learning as interactive and engaging as possible is also important. Encouragement of self-reflection including metacognition is also important, as is concentrating on more than content. In order to satisfy the need for immediate responses to Net Gen students' each and every action, faculty need to set expectations and guidelines. Reaction does not have to be from faculty — students can respond to each other. Another concern was with regard to the Net Gen characteristics of 'immediacy' and 'source jumping' and whether it causes a tendency to superficiality of learning. Strategies to limit this include the importance of teacher indepth coverage of content, including tangibles, ponderables and problem-based learning (Oblinger, 2005).

As with the University of Adelaide staff survey, webinar participants acknowledged the challenge of staff being 'time poor' and a lack of adequate resources to enable many of these strategies to be implemented.

The findings of the surveys and webinars warrant a closer look at the Net Generation and this is examined further within the context of an online roleplay simulation — the *Mekong e-Sim*.

The *Mekong e-Sim*, an online roleplay simulation

The *Mekong e-Sim* is an online roleplay simulation developed collaboratively by Engineering schools at the University of Adelaide and the University of Technology, Sydney. The *Mekong e-Sim* has been developed within the University's lms, *MyUni*. It was first developed in 2001, has been recognised both nationally and internationally and has received a number of teaching awards, including the Pearson Education UniServe Science Teaching Award, the ascilite award for "Exemplary use of Electronic Technologies in Teaching and Learning in Tertiary Education: Best Web Based Project" and the Commonwealth of Learning Award of Excellence for Distance Education Materials. The *Mekong e-Sim* involves between 60 and 140 students with various technical backgrounds from a number of universities who adopt the roles of stakeholders and respond to proposed development issues in the Mekong River basin of South-East Asia. Through research and interaction with other roles, participants build a case as to whether the proposed development should proceed or not, which they present and defend during an on-line public inquiry. The *e-Sim* consists of four main stages, including briefing (2 weeks), interaction (1 week), public inquiry (1 week) and debriefing (2 weeks). Details of the *e-Sim*, and some of the issues faced during its development, are given in McLaughlan, Kirkpatrick, Hirsh and Maier (2001a), and McLaughlan, Kirkpatrick, Maier and Hirsch (2001b), Kirkpatrick, McLaughlan, Maier and Hirsch (2002), McLaughlan and Kirkpatrick (2004) and Maier, Baron and McLaughlan (2005a).

The *Mekong e-Sim* has been evaluated using a Community of Inquiry framework (Baron & Maier, 2004) and as a result of the evaluation further enhancements added to its 2005 course. In addition 2005 *Mekong e-Sim* students have recently undertaken a student experience of learning and teaching (SELT) survey. Apart from this, new interpretative frameworks have been applied to the *e-Sim*, demonstrating that it is effective at preparing engineering students for international and multidisciplinary practice (Maier & Baron 2005b) and for teaching sustainability principles (Maier, Baron & McLaughlan 2005a). The majority of students who have studied the *Mekong e-Sim* during the last two years are Net Generation learners.

The *Mekong e-Sim* online roleplay simulation is conducted over a 6-week period within a 13-week semester course of study. In 2004 and 2005, it was run simultaneously across two institutions: the University of Adelaide and University of Technology, Sydney. Recently the engineering students have commented that they would like to see other disciplines involved, for example Geography, Finance, Law, Journalism, as well as students from other countries, especially Asia, to bring other perspectives to the roleplay. This supports the characteristics of Net Geners as 'prolific communicators' who display 'a striking openness to diversity, differences and sharing' (Oblinger et al., 2005 p. 2.6).

At present, all students undertaking the *Mekong e-Sim* are on-campus students and they are provided with face-to-face orientation to the roleplay simulation, as well as face-to-face debriefs at the conclusion of the e-Sim. University of Adelaide students are able to undertake the roleplay simulation using on-campus computer laboratories during scheduled class sessions in order to complement their access at any time and any place.

The blended learning environment allows the students who are new to roleplay simulations to receive adequate orientation and the background preparation required in order for them to effectively participate and achieve the desired learning outcomes. This blended learning approach is in keeping with the Net Generation's preference of having 'a moderate amount of IT in their classes' (Oblinger et al., 2005 p. 2.11).

It has been identified that the level of teaching presence in the *Mekong e-Sim* is extremely high (Baron et al., 2004). Teaching presence in an online environment is not necessarily constrained to the facilitation of discussion boards and regular 'online office hours'. Within the *Mekong e-Sim*, extensive use is made of discussion board and group features, but there is very little teacher intervention. Instead, the comprehensive learning design and resources, which support high levels of student-to-student interactivity and higher order learning are the key ingredients. Forums and groups are enabled by the lecturers, but to a great extent the students themselves moderate the online interactions during the public inquiry stage. Student evaluation and ongoing fine-tuning and enhancements are also critical to teaching presence. Enhancements made to the online roleplay simulation in 2005, partially as a result of 2004 student feedback, have included the addition of audio-narrated presentations, past student interviews captured on video to provide advice and tips to current students, and guidelines for effective use of the discussion board forums and student moderation. Support is provided to allow students to take control of their own learning and which supports findings that 'their preference is for structure rather than ambiguity' including 'parameters, rules, priorities and procedures' (Oblinger et al., 2005 p. 2.7).

Net Generation students are 'time poor' due to very active lifestyles and they need to obtain information quickly in order to get onto other things. The *Mekong e-Sim* allows students to access and undertake the online roleplay simulation at any time and any place within the 6-week period. An analysis of the online interactivity indicates that they do this after hours and on weekends, as well as during regular on-campus hours.

Net Generation learners 'prefer working on things that matter' and 'often prefer to learn and work in teams'. (Oblinger et al., 2005 p. 2.7). This is one of the pedagogical strengths of the *Mekong e-Sim, which* has been designed to provide an authentic learning and assessment environment that enhances students' problem solving abilities and their development of generic graduate attributes. It addresses the challenge of ensuring that engineering students acquire a range of graduate attributes (Engineers Australia 2005), which is difficult to achieve in a traditional classroom setting. The *Mekong e-Sim* also incorporates both individual and group work activities and assessment requirements.

A Student Experience of Learning and Teaching (SELT) was undertaken by 33 of the 47 University of Adelaide students at the conclusion of the 2005 *Mekong e-Sim* online roleplay simulation. The survey included questions on engineering graduate attributes in order to assess student perception of how well their awareness of an understanding of sustainability principles had been developed.

Student responses were measured on a 7-point scale, ranging from 'strongly agree', which corresponds to a rating of 7, 'neutral', which corresponds to a rating of 4, to 'strongly disagree', which corresponds to a rating of 1 (see Table 2).

Table 2: 2005 SELT Mekong e-Sim graduate attributes (n:33)

Engineering graduate attributes: 'The Mekong e-Sim helped to develop my …'	Mean (Max. 7)	Median (Max. 7)
Awareness of political, social, economic and scientific dimensions of engineering decision making	5.9	6.0
Ability to see engineering issues from multiple perspectives	6.1	6.0
Awareness of the need for sustainable development	6.2	7.0
Understanding of the meaning of sustainable development	5.8	6.0
Awareness of the complexity of sustainable development issues	6.4	7.0

Table 2 findings highlight the success of the *Mekong e-Sim* in developing sustainability principles for engineering students, and this is discussed in more detail in Maier et al. (2005a). This further supports findings that the *Mekong e-Sim* meets the preference of Net Generation learners for working on things that matter 'such as addressing an environmental concern' (Oblinger et al., 2005, p. 2.7).

In addition, all *Mekong e-Sim* students, as part of their assessment requirements, prepare a debrief report at the end of the roleplay simulation. The objective of the debrief report is to further illustrate student understanding of the complexity of environmental decision-making and their professional skills. Consistent feedback from University of Adelaide students has been that they have found the roleplay simulation 'memorable' and 'enjoyable'.

> I believe that as a learning tool, the e-sim was a spectacular success. It conveys the multi-dimensional aspects of decision-making and its inherent difficulty far better than standard lectures, tutorials or research groups ever could. It achieved this by being, above all, interactive. (Baron et al 2004, p.8)

They consider its design is realistic in that there are a large number of diverse organisations with different aims and the decision-making process is complex and time-consuming. 2004 students also provided constructive feedback on several 'unrealistic aspects'. This includes the lack of cultural diversity of participants, the unrealistic accessibility and ease of communication between groups, the inaccurate 'level playing ground' for groups with varying amounts of power, insufficient emphasis placed on reaching a compromise, and the unrealistic time constraint to resolve the real life issues. A further observation was that:

> The e-Sim cannot properly represent the power of human emotions. Include media such as pictures and videos to create emotion. (Baron et al., 2004, p. 13)

This supports findings that the Net Generation is more digitally literate than previous generations and is more comfortable in image rich environments than with text (Oblinger et al., 2005, p. 2.5). It further supports the view that social presence is an important element in order for effective learning to take place in online learning environments (Garrison et al., 2003; Baron et al., 2004).

The 2004 student evaluation further identified that the resolution stage of the practical inquiry model (Garrison et al., 2003), which is specifically designed for online learning environments, successfully incorporated the triggering events, exploration and integration necessary for an effective intellectual environment. However, the fourth phase, resolution, could have been extended to allow for further interaction once the final decisions had been made. To enable a more effective resolution phase, in 2005 the *Mekong e-Sim* included a face-to-face question and answer session prior to the reflective debrief session. In preparation for the question and answer session, groups were advised to collaborate (online) with other like-minded groups and form 'consortia' or alliances in order to address the respective decision-makers as to their final decisions. Students were surveyed on this new consortia feature and it would appear that while it helped contribute to their learning, a review of the formation of the groups needs to be undertaken (see Table 3).

Table 3: 2005 SELT Mekong e-Sim course features (n:33)

Course features	Mean (Max. 7)	Median (Max. 7)
The Mekong e-Sim handbook was a useful resource	5.8	6.0
The Mekong e-Sim website included useful resources	5.5	6.0
The discussion forums contributed to my learning	5.5	6.0
The forming of consortia (groups) at the end of the public inquiry stage contributed to my learning	4.5	4.0
The face to face meeting with consortia contributed to my learning	5.3	5.0
The multi-media resources were easy to access	5.4	6.0
The multi-media resources were of good quality	5.1	5.0
I regularly accessed the multi-media resources	4.6	5.0
The multi-media resources provided a better context than text-based resources	4.6	5.0

Developing and sustaining social interaction within an asynchronous, non-verbal e-learning environment is a challenge for educators. (Garrison et al., 2003) An in-depth evaluation of social interactions within a Community of Inquiry framework identified that quite apart from the high level of interactions within a one-week period, the interactions were also of high quality and aided cognitive development. (Baron et al., 2004) Table 3 indicates that 2005 students were generally satisfied that the discussion forums contributed to their learning. Table 4 illustrates the extent of discussion board postings and readings, as well as email activity during 2004 and 2005. There were 86 students in 2004 and 63 students in 2005. This high level of postings and readings supports the profile of Net Geners who crave interactivity, especially when they are working on something that matters, in this case, environmental aspects of engineering.

Table 4: Mekong e-Sim online public inquiry interactions 2004–2005

One-week period	2004 (n:86)	2005 (n:63)
Discussion Board Group Postings	436	378
Discussion Board Readings	16,197	16,982
Email interaction	372	303

As a result of the 2004 student feedback, enhancements were made to the *Mekong e-Sim* in early 2005 in the form of video clips of the Mekong River and past student interviews, audio-narrated presentations and increased use of colour, logos and other images. Debrief sessions were videoed and made available to students online within the *Mekong e-Sim*. The audio and video multimedia enhancements are now accessible via a University supported streaming server.

Discussion

Drawing on the theme of the ascilite 2005 conference, and using the findings of the university surveys and webinars, as well as the *Mekong e-Sim*, the question can been raised: *to what extent is the university maintaining the momentum of balance, fidelity and mobility for its students, many of whom demonstrate characteristics of the Net Generation?*

Balance

The university survey findings identify that there is an imbalance between learners and educators with regard to the use of online learning technologies. Learners want more effective and consistent use made by their lecturers of the lms and streaming server.

It has been acknowledged that not all students of the University are Net Geners. However as more and more students entering higher education are growing up with technology and have relatively high levels of computer literacy, it is important to identify their learning preferences and also to ensure that there is a balance between this and quality educational outcomes. This includes increasing the uptake of innovative use of technology (for example online roleplay simulations), but only if it adds value to the traditional lecture and tutorial format. Net Geners do not see technology in the same way as other generations.

> The activity enabled is more important to the Net Gen than the technology behind it. eg instant messaging is an action, not a technology.
>
> (Oblinger et al., 2005, p. 2.10)

Also they do not necessarily want more online learning and technology - they use this in their personal lives. They come to university for social reasons, they want to be connected to people and develop a sense of campus collegiality.

> The implication is that colleges and universities should not assume that more technology is necessarily better.
>
> (Oblinger et al., 2005, p. 2.11)

The integration of the *Mekong e-Sim* online roleplay simulation into the engineering course is considered a good example of achieving balance. A blended learning environment allows the students who are new to roleplay simulations to receive adequate orientation and the background preparation required in order for them to effectively participate and achieve the desired learning outcomes. This blended learning approach is in keeping with the Net Generation's preference of having 'a moderate amount of IT in their classes'. (Oblinger et al., 2005, p. 2.11)

Balance is achieved by providing the necessary support to allow students to take control of their own learning and which supports findings that 'their preference is for structure rather than ambiguity' including 'parameters, rules, priorities and procedures' (Oblinger et al., 2005, p. 2.7).

Net Generation students are 'time poor' due to very active lifestyles and they need to obtain information quickly in order to get onto other things. The *Mekong e-Sim* helps to achieve balance by allowing students to access and undertake the online roleplay simulation at any time and any place within the 6-week period. An analysis of the online interactivity indicates that they do this after hours and on weekends, as well as during regular on-campus hours.

The *Mekong e-Sim* has been designed to provide an authentic learning and assessment environment that enhances students' problem solving abilities and their development of generic graduate attributes. It achieves balance by addressing the challenge of ensuring that engineering students acquire a range of graduate attributes (Engineers Australia, 2005), which is difficult to achieve in a traditional classroom setting. The Mekong e-Sim also achieves balance in the assessment requirements, whereby 50% is based on individual work and 50% on group work. Net Generation learners 'prefer working on things that matter' and 'often prefer to learn and work in teams' (Oblinger et al., 2005, p. 2.7).

However, a constraint of the *Mekong e-Sim* for maintaining balance cross-institutionally, as well as plans for cross-disciplinary collaborative use, has been timetabling issues both within and across various institutions.

Fidelity

A Net Gener may well consider that fidelity is achieved where their preferred ways of learning are acknowledged and incorporated. *The Mekong e-Sim* has been well received by students for several years and would appear to satisfy many of the Net Geners preferences. It is online, it is available at any time and any place, it is group based, it is assessable, it has a high level of structure and guidelines, it is interactive, it is experiential, it incorporates imagery, and deals with environmental decision making from multiple perspectives which directly relates to their future careers as civil and environmental engineers.

From an educator's perspective, fidelity at a course level can occur via use of conceptual frameworks for course development and evaluations of the use of educational technology from various perspectives, such as the Community of Inquiry framework used with the *Mekong e-Sim*. The findings of evaluations have enabled modifications and enhancements to be made to continually improve the learning environment of an already internationally well-recognised online roleplay simulation.

Mobility

Educational technologies allow for increased mobility in that learners can access learning materials and communicate and collaborate online at any time and any place. This suits the digitally literate Net Geners who have grown up with technology. However, an interesting finding of the *Mekong e-Sim* was that even though the 2005 students generally found the multimedia resources easy to access and of good quality, they were less positive about whether they regularly accessed them or whether they provide a better context that text-based resources (see Table 3). Qualitative feedback indicated that time was often the issue — students wanted information quickly and reading alternative text (which was included for accessibility reasons) was faster than opening and downloading media resources. Net Geners want image rich environments, but they are also 'time poor' and want information quickly. And as reported in 'Balance' above, Net Geners do not necessarily want more technology in their learning. They do want more consistent and effective use made of technology, but also desire the face-to-face social interaction that campus life brings.

Summary

This paper has identified the characteristics and learning styles of Net Generation learners. It has also evaluated an online roleplay simulation that addresses many of their learning preferences and which is maintaining the momentum of balance, fidelity and mobility. However, it has also highlighted that maintaining the momentum will continue to be a challenge for higher education faculty and educators who have competing priorities and a lack of adequate resources to meet the needs of the Net Geners including the development and implementation of effective online learning strategies which may well include emerging CLE technologies. At a university wide level, it has been highlighted that there are discrepancies between lecturer usage and student requirements with regard to the University's lms and associated technologies. Net Geners form an increasing large proportion of the student population, and even though they do not necessarily want to learn wholly in an online environment, they do want more consistent use made of those lms features which add value to their face-to-face classes and provide interactivity, imagery, experiential learning, group work and structure.

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