



3 THE RISE OF THE NET-GENERATION

Implications for Educational Renewal in the Seminary Classroom¹

Calvin Chong

This paper explores the rise of the Net Generation, their characteristics and expectations, and how their presence poses challenges to the traditional seminary classroom. Three responses are proposed for educators and administrators in the theological academy as they anticipate an emerging generation of learners raised in immersive digital environments: 1. Develop awareness of 'built pedagogies' in learning spaces; 2. Integrate multiple modalities into classroom learning; and 3. Adopt technologies which promote learning in face-to-face as well as online classrooms.

Communication infrastructures and technologies have transformed life in the 21st century so thoroughly and irrevocably that life is now lived straddled between geographic and virtual spaces. The Internet has made its way into the mainstream of everyday life, and has now “reached into—and, in some cases, reshaped—just about every important realm of modern life” (The Pew Internet and American Life Project 2005, 57). It is central to a global communications revolution

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which has provided immediate access to vast amounts of information resources, altered the way a new generation communicates, and ushered in what has been called ‘a communications age’ (Lull 2001). In its current evolution—often referred to as Web 2.0 (Solomon & Schrum 2007, Tancer 2008, Tapscott 2009)—there is a shift toward greater participation and sociality on Web spaces. The present ease with which new media elements can be “consumed, created, presented, shared, exchanged” (Woolsey 2005) and integrated into personalised Web 2.0 spaces has thus resulted in ‘new means of communication’, ‘new places to communicate’, and ‘new avenues of interaction’ (New Media Consortium 2007, 3-5).

These developments in digital spaces have social, economic, and political implications and consequences for 21st century life. For the Church, a new set of questions about how to carry out her missional imperative and pastoral responsibility has now been presented as she grapples with the recognition that identities, worldviews, values, intuitions, and habits are shaped through interaction and participation in media-saturated digital spaces. Likewise, theological institutions serving the Church have had new sets of questions posed regarding their educational mandates as they are confronted by the communications revolution, the changes it introduces, and the responses it demands.

Mindful of these developments, and anticipating a new generation of highly networked and technologically dependent students entering seminaries, this paper explores the rise of the Net Generation, their characteristics and expectations, and how their presence poses challenges to the traditional seminary classroom. The paper also proposes responses for seminary educators and administrators to consider as they encounter an emerging generation of learners raised in immersive digital environments.

THE REALITY OF A CHANGING GENERATION OF LEARNERS

In 1996, Douglas Rushkoff coined the neologism ‘Screenager’ to describe an observation made of the emerging generation. Screenagers are “child(ren) born into a culture mediated by the television and computer” (Rushkoff 1996, 3). At the dawn of the Internet age, attention was already being drawn to a pervasive screen-mediated lifestyle which had come to characterise a new generation of young people. Two years later, Don Tapscott published *Growing Up Digital: The Rise of the Net Generation*, in which he detailed the characteristics of a rising Net Generation and the implications of the emergence for entertainment, learning, communication, and shopping. He asked, “What makes this generation different from all others before it?” and his answer was this:

It is the first [generation] to grow up surrounded by digital media. Computers can be found in the home, school, factory, and office and digital technologies such as cameras, video games, and CD-ROMs are commonplace. Increasingly, these new media are connected by the Internet, an expanding web of networks which is attracting a million new users monthly. Today’s kids are so bathed in bits that they think it’s all part of the natural landscape. For the first time in history, children are more comfortable, knowledgeable, and literate than their parents about an innovation central to society. And it is through the use of the digital media that the N-Generation will develop and superimpose its culture on the rest of society. (Tapscott 1998, 1-2)

To distinguish the Net Generation from preceding generations, Marc Prensky coined the terms ‘Digital Natives’ and ‘Digital Immigrants’. Digital Natives are “native speakers of the digital language of

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computers, video games and the Internet”, while Digital Immigrants are “those of us who were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology” (Prensky 2001a). While both may spend sizable amounts of time in front of a computer screen, digital immigrants do not possess the same comfort levels, perceptions, vocabulary, new literacies, multiple cyberpersonas, cybersocial tendencies, and intuitions that digital natives have.

What are some defining characteristics of N-Geners? The most commonly articulated distinguishing mark relates to age band or life stage. This is the generation born in the 1980s and later, and so are thirty years of age and younger. The commentators who have noted this have suggested other defining marks, too:

- Prensky (2001b, 52-65) has listed ten cognitive style changes which serve to distinguish N-Geners from previous generations of learners. These include distinctions such as parallel processing vs. linear processing, graphics first vs. text first, active vs. passive, play vs. work, fantasy vs. reality, and technology-as-friend vs. technology-as-foe.
- Diane and James Oblinger (2005, 2.5-2.7) observed ten features of college-aged North American N-Geners, including that they are digitally literate, connected, immediate, experiential, and social; they favour learning and working in teams, and work well when provided with structure; they are more comfortable with visual and kinaesthetic learning, and prefer working on things that matter.
- Tapscott’s most recent study (2009, 34-35, 73-96) elaborates on eight norms observed amongst N-Geners. These norms include them wanting freedom in everything they do, from

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freedom of choice to freedom of expression; they love to customise and personalise; they look for corporate integrity and openness when deciding what to buy and where to work; they want entertainment and play in their work, education, and social life; they are the collaboration and relationship generation; they have a need for speed; and they are innovators.

However, Oblinger and Oblinger suggest that these characteristics should not be viewed purely as generational characteristics:

Although these trends are described in generational terms, age may be less important than exposure to technology. For example, individuals who are heavy users of IT tend to have characteristics similar to the Net Gen. In fact, the pervasiveness of technology—in our professions and in our personal lives—virtually ensures that most individuals gradually assume some Net Gen characteristics. For example, ask yourself: “Are you more comfortable composing documents online than longhand? Have you turned your “remembering” (phone numbers, meetings, and so on) over to a technology device? Do you go to meetings with your laptop or PDA? Are you constantly connected? Is the Internet always on whether you are at home or work? Is your cell phone always with you? How many different activities can you effectively engage in at one time? Do you play video or computer games?” The differentiating factor may not be so much one person’s generation versus another; the difference may be in experience. (Oblinger and Oblinger 2005, 9-10)

This focus on the place of experience with new technologies rather than on age band means that the phenomenon is thus carried into theological institutions not only by younger students, but also by older students with strong personal interest and extensive professional

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experiences in technological environments. And all bring with them into the seminary varying expectations for technology-enabled learning experiences. In turn, they invite reflection on the design of both physical and online learning spaces, and call for the judicious deployment of technologies which promote learning and enhance their overall educational experience.

EMERGING EDUCATIONAL CHALLENGES TO THE SEMINARY CLASSROOM

Recent literature detailing N-Gen learning characteristics, preferences and expectations provide insight into classroom learning processes involving N-Gen participants:

- Carie Windham describes how reaching N-Geners in traditional classrooms necessitates incorporating high levels of interaction with people and material, exploration of subject matter beyond what is articulated by the professor, relevancy to real world issues, instructional variety supported by multimedia content, and instruction in research skills (Windham 2005, 5.6-5.9).
- Ben McNeely describes how N-Geners use technology to enhance learning by doing, desire high levels of social interaction, and thrive when learning involves interactivity with computers, professors, and classmates (McNeely 2005, 4.2-4.7).
- A study by Greg Roberts revealed that N-Geners highly value their professors' experience and expertise, but also their abilities to customise classroom learning using content management technologies, and abilities to professionally convey teaching points using software such as PowerPoint. Also,

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N-Geners prefer learning situations which involve 50% lecturing and 50% interactive learning activities over either *100% lecturing* or *100% interactive* learning (Roberts 2005, 3.3-3.4).

- Judith Ramaley and Lee Zia prescribe that N-Gen learning environments must be highly interactive, and deploy information technologies which support four major categories of interactivity: people to people, people and tools, people with concepts, and people with contexts (Ramaley and Zia 2005, 8.7-8.12).

In contrast to these N-Gen learning characteristics, preferences, and expectations, observation and experience suggest that traditional teaching practice remains prevalent in Asian theological institutions. Oblivious to the characteristics of the N-Gen learner, this default template remains dominant in spite of the prophetic voice of the ICAA-ICETE *Manifesto on the Renewal of Evangelical Theological Education*, which called for reform in seminary classrooms. The Manifesto recognised that “lecturing is by no means the only appropriate teaching method, and frequently by no means the best” (ICAA 1984, 142), and advocated for instructional variety within the seminary classroom (ICAA 1984, 142; ICETE 2002, 9).

One of the benefits of the presence of the Net Generation is that their multifaceted learning experiences illustrate the nature and scope of learning in the 21st century. In contrast to traditional classroom practices which privilege a unidirectional ‘transfer of information’ model of education, the learning experiences that N-Geners are accustomed to tend to be highly interactive, collaborative, visual, visceral, technologically enabled, and distributed over both geographic as well as online learning spaces. Furthermore, their learning experiences are often built on sound educational principles and illustrate good

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learning practice. As Malcolm Brown has observed, “there are overlaps between the working characteristics of Net Gen students and practices that research has shown encourage and strengthen learning” (Brown 2005, 12.5).

This signals a necessary paradigm shift in learning approaches which needs to evolve in seminary classrooms. It comes as no surprise that N-Geners in seminaries, who now have learning expectations shaped by rich learning experiences in school, university, and workplace settings, desire classroom experiences which are intentionally structured for active, participatory engagement with content, contexts, instructors, and fellow learners, with enabling technologies supporting the engagements in both face-to-face as well as online learning environments. This is a shift from teacher-centred to learner-centred education which has been well-articulated by multiple voices in the arena of theological education (e.g. Blair 1997; Gangel 1997; Koh 1998; Wanak 2000; Jurkowitz 2003; McKinney 2003; Viktora 2005; Cannell 2006; Shaw 2006). If the 21st century is to be “the learning century in theological education” (Cannell 2006, 271), in order to produce the complex, variegated graduate outcomes that theological education seeks to achieve, theological educators will need to develop and adapt a repertoire of educational strategies appropriate to the Net Generation. Remaining monolithic and educationally unimaginative is no longer an option: “In an age when ideological and social change assumes dramatic proportions, ... preoccupation with conserving models and strategies of the past is a sure path to irrelevance” (Ferris 1996, 55).

RENEWAL OF THE SEMINARY CLASSROOM

How might theological educators and administrators of theological institutions respond to these challenges? I propose three areas of awareness and renewal for the seminary classroom, as the primary learning space of theological education, in recognition of the learning needs of an emerging generation of learners:

1. Develop awareness of 'built pedagogies' in learning spaces.
2. Integrate multiple modalities into classroom learning.
3. Adopt technologies which promote learning in face-to-face as well as online classrooms.

These proposals are presented in the spirit of inquiry and experimentation advocated by Stephen Brookfield:

Critical reflection is a matter of stance and dance. Our stance toward our practice is one of inquiry. We see it as being in constant formation and always needing further investigation. Our dance is the dance of experimentation and risk. (Brookfield 1995, 42)

1. Develop awareness of 'built pedagogies' in learning spaces

How might the classroom be used more imaginatively for flexible, student centred approaches to learning? An often unexamined reality about learning spaces is that how they are structured bears on the nature of the communicative exchanges between participants. Torin Monahan has coined the term 'built pedagogies' to refer to "architectural embodiments of educational philosophies" (Monahan 2002), and the extent to which built pedagogies cast their influence on classroom learning experiences is widely recognised (e.g. Graetz and Groliber 2002, Monahan 2002, Strange and Banning 2002, Van Note Chism 2006, Oblinger 2006). Oblinger has thus noted:

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Space—whether physical or virtual—can have an impact on learning. It can bring people together; it can encourage exploration, collaboration, and discussion. Or, space can carry an unspoken message of silence and disconnectedness. More and more we see the power of *built pedagogy* (the ability of space to define how one teaches) in colleges and universities. (Oblinger 2006, 1.1)

Understanding the impact of built pedagogies is critical, when we realise that the prevalent physical design of seminary classrooms privileges the lecture form and reinforces teacher-centred education. The strength of the lecture in students' educational experience must be recognised. For example, Brookfield identifies five useful purposes associated with lecturing:

- a. To establish the broad outline of a body of material.
- b. To explain, with frequent examples, concepts that are hard for learners to understand.
- c. To introduce alternative perspectives and interpretation.
- d. To model intellectual attitudes and behaviours the lecturer wishes to encourage in the students.
- e. To encourage learners' interest in a topic. (Brookfield 2006, 100f).

A built pedagogy which privileges the lecture form, however, often fails to recognise the lecture's weaknesses and limitations—which educators are often unaware of:

- a. The lecture is as effective as any other method of transmitting information but not more effective.
- b. Most lectures are not as effective as discussion for promoting thinking.
- c. Changing student attitudes should not normally be the major objective of a lecture because they are relatively ineffective for

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teaching values, inspiring interest, and for personal and social adjustment.

- d. Lectures are ineffective for teaching behavioural skills. (Bligh 2000, 3-20).

Likewise, the lecture cannot achieve pedagogical purposes which other educational approaches are better designed for. A built pedagogy structured for discussion would thus serve, *inter alia*, to engage students in exploring a diversity of perspectives; help them recognise and investigate their assumptions; increase their intellectual agility and openness; develop their capacity for the clear communication of ideas and meaning, encourage attentive, respectful listening, and affirm them as co-creators of knowledge (Brookfield 2006, 118-124). These are pedagogical purposes which a built pedagogy structured for lecture is not designed to promote.

However, if the N-Gen learner preference for ‘50% lecturing and 50% interactive learning activities’ is to be taken seriously, learning spaces need to be configured in ways which are flexible enough to accommodate a range of learning styles as well as to fulfil a variety of pedagogical purposes. Thus there is need for critical awareness of the reality of built pedagogies and their influence on learning outcomes. Learning spaces need to be designed, and furniture arranged, in ways which allow functional and flexible usage, in order to achieve a range of intended pedagogical purposes (Cornell 2002, Van Note Chism 2006). Paul Cornell reminds us that classroom furniture “should help the instructor and student achieve their goals using the methods and tools of their choice. Furniture should facilitate learning, not just be a place to sit” (Cornell 2002, 37).

Finally, flexible built pedagogies make deployment of a variety of approaches to teaching more conducive, but they do not *per se* ensure

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that variety will ensue. So together with designing flexible built pedagogies into the classroom will be the need to encourage intentional variation of teaching and communication approaches. Brookfield thus recommends this variation as a matter of good educational practice, even in the lecture:

Given that students clearly have different learning styles, varying communication styles and modalities in a lecture has long been argued as an essential component of good practice. In any lecture I would advocate that at least three different approaches or modalities be used. Any more than this and the lecture is experienced as too fractured, any less and interest declines. (Brookfield 2006, 102)

In short, seminars will do well to intentionally design and manage their learning spaces to ensure that both furniture and faculty mindsets are flexible enough to allow for a range of learning approaches which promote deep and engaging learning in seminary classrooms.

2. Integrate multiple modalities into classroom learning

Humans receive and process information through an interconnected network of perceptual modalities. Commonly found in learning settings are the three primary modalities: visual (viewing and reading), aural (hearing and speaking), and psychomotor (doing). These may be expanded to include print, aural, interactive, visual, haptic, kinaesthetic, and olfactory modes (James and Galbraith 1985). As adult learners develop, they acquire a 'dominant modality' as well as a 'secondary modality'; and when these two are effectively synergized, the result is 'mixed modality strength' (Wislock 1993, 5-6).

N-Geners whose learning habits are shaped in pervasive multi-media social networks often thrive in educational settings which

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afford mixed modality learning. But most educators are seldom critically aware that they teach as they were taught or that they often prefer to teach using the modalities which they themselves respond best to (Barbe and Milone 1980). Also, educators often do not take time to familiarise themselves with 'best practices' literature or the range of interactive learning experiences involving other modalities to augment their repertoire of teaching approaches. Instead, they continue to privilege the learning modalities known and familiar to them—an expression of the teacher-centredness which is pervasive in present day seminary classroom culture.

Historically, the role of interactivity has been recognised as an essential element in education. John Dewey (1916) affirmed the place of interaction as a key constituent of educational process by which engaging and relevant learning is attained. Likewise, both Albert Bandura (1977) and Lev Vygotsky (1978), in their social learning and social development theories, proposed that social interaction profoundly influences learning and/or cognitive development. Further,

students learn best when they are actively involved in the process. Researchers report that, regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats. Students who work in collaborative groups also appear more satisfied with their classes. (Davis 1993, 147)

Multiple modalities may be integrated in the classroom in a variety of ways. Chet Meyers and Thomas Jones have proposed a multi-modal pedagogy of active learning which involves talking and listening, reading, writing and reflecting. These four elements of active learning may be introduced to classroom learning through strategies such as small

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groups, cooperative work, case studies, simulations, discussion teaching, problem solving, and journal writing (Meyers and Jones 1993, 20). Elizabeth Barkley and her collaborators have provided thirty tried and tested techniques for readers to implement collaborative learning in their classrooms (Barkley, Cross and Major 2004). Other more-recently developed engines to promote multimodal learning experiences include problem-based learning (Harding 2001; Duch, Groh, and Allen 2001; Tan 2003; Worsley 2005) and WebQuests (Brown Yoder 1999, Halat 2008). These offer unique opportunities for interdisciplinary learning embedded within real life scenarios.

Collectively, these strategies will help theological educators develop in their artful mastery of the craft of teaching. Through practice and exposure to alternative approaches to teaching, by developing best practices in classroom teaching, and by experiencing the impact of their contributions on student learning, they can become agents of effective learning involving multiple perceptual modalities, and so help realise the vision of the 21st century as “the learning century for theological education” (Cannell 2006, 271).

3. Adopt technologies which promote learning in face-to-face as well as online classrooms

Most Asian theological educators will identify with John Jewell’s reflection on the pervasiveness of technology in 21st century life:

Technology for most of us has been something apart from and over against us. It is observable as though it were this “thing”—like a fish we can observe swimming about in an aquarium. We can get close to the aquarium and examine intently, or we can walk away and leave the aquarium behind. It is becoming clear that we are no longer observers of technology—we are *in the aquarium*. Many of us are

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struggling with the digital world, complaining about it, uncomfortable with it, or gradually learning to “breathe” (use our gills) in this new environment. There is, however, a growing number of persons in our culture who have grown up in the aquarium and have never breathed with anything *but* their gills. There is a significant discontinuity between the generation that has grown up with the rapid arrival and dissemination of digital technology and those of us who have gradually and often grudgingly found ourselves having to join the swim. (Jewell 2005, 21)

Being ‘in the technological aquarium’ often pressures seminaries to jump on the technology bandwagon, with varying degrees of success and failure. A North American study by Steve Delamarter has noted different stages of advancement which theological institutions undergo as they develop and implement technology visions:

- Some seminaries embrace technology by ‘supercharging’ the traditional classroom with wireless Internet connections, LCD projectors, and access to library information databases. Delamarter observed that most theological institutions adopt this strategy as a first course of action and then remain within this boundary.
- The next big step sees a venture into web-based distance education and the development of content management systems. In attempting web-based education, seminaries often migrate traditional methods online into these content management systems, discover that the methods are ill-suited for the medium, and come to the (unfortunate) conclusion that online education has little benefit and little place in theological education.
- A rare few institutions press on, asking questions about appropriate pedagogy and appropriate technology, and eventually

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make substantial progress in their deployment of either fully online courses or hybrid courses involving a blend of face-to-face and online learning experiences. (Delamarter 2004)

Lessons can be learnt from the technology visions and journeys observed by Delamarter. First, the vision of the supercharged wired smart classroom often betrays an educational philosophy which elevates the teacher and promotes unidirectional communication. It is interesting to observe the transformation of classrooms over the years: the chalkboard was replaced by the white board; the overhead projector supplemented the slide projector; the LCD projector was introduced, followed by the visualiser and then the digital white board. In each case, the evolution has always tended to be technological, mostly at the front of the classroom, and primarily to empower the already empowered teacher. The evolution has rarely resulted in changes in built pedagogies which promote active learning and greater collaborative interactions between participants.

Presentation technologies like PowerPoint will continue to serve a useful purpose in today's seminary classrooms. There is value in projected visual images, timelines, maps, charts and diagrams for enhancing learning: "Many theological developments occur as the result of interaction between different ideas or the culmination of a series of events, and visual diagrams can demonstrate the intricacies of these correlations in concise and insightful ways" (Snyder 2007, 32).

This valuable use, coupled with other purposeful uses of presentation and media technologies to promote learning, give us reason to affirm the value of smart classroom technologies for teaching a digital generation. However, the inherent limitations and issues associated with presentation technologies also need to be recognised. For example, consider these concerns about the use of PowerPoint:

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Everyone has sat through a presentation in which the presenter's knowledge of the subject was far greater than their ability to design and produce an effective message. Boring, confusing and sometimes ugly visuals can easily distract from a presentation. But many people's ability to use technology to design meaningful messages has not necessarily kept pace with the technology. To enhance our presentations, we need to improve our understanding of visual design and use the technology we have available. (Shackelford and Griffis 2007, 19)

A typical PowerPoint presentation is based on the usual process—"Hearing and forgetting, seeing and remembering," but leaves out the "doing and understanding" part. That's because the traditional PowerPoint presentation relies on seeing and hearing, its interaction potential is rarely revealed. (Finklestein and Samsonov 2008, 10)

Ultimately, of critical concern for theological educators is not how technologically well-equipped a class needs to be, but how well existing appropriate technologies are deployed. Creative and discerning use of both existing and future classroom technologies is advocated if theological educators are to benefit from the valuable contributions of educational technologies for a digital generation.

A second lesson drawn from Delamarter's study relates to the draw toward online web-based education. N-Geners have grown up in media-saturated environments organised not just around information but increasingly around community. Conventional thought suggests that the Internet shapes the Net Generation, their characteristics, and their preferences, but Tapscott observes a reflexive, dialogical relationship which sees N-Geners shaping the Internet as much as the Internet shapes them:

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Technology is influencing the way kids think and behave, but it's a two way street—the way kids think and behave is influencing and shaping the Internet itself... Now they are helping to transform it into something new—Web 2.0, the living web, the Hypernet, the active web, the read-write web. (Tapscott 2009, 53)

This transformation of the Internet from Web 1.0 to Web 2.0 represents a shift from an informational-broadcast first generation paradigm to a social-sharing second generation paradigm. In its existing expression, the architecture and organisation of web spaces is increasingly designed to facilitate greater connectivity and participation amongst Netizens. Net Generation intuitions are thus weaved into media-rich social environments whose built pedagogies are distinctively different from that found in Web 1.0 environments: witness YouTube, iTunes, Facebook, Wikipedia, Flickr, and Twitter.

The relevance of these significant technological developments to institutions of higher learning is being monitored. The *Horizon Report* (NMC 2007, 2008) describes emerging Web 2.0 technologies likely to impact institutions of higher learning, indicates the probable timeframes for widespread adoption in these institutions, and expounds on their relevance for teaching, learning and creative expression. Research by The Economist Intelligence Unit indicates that “online-collaborative tools, software that supports individually paced learning, and learning-management systems are among the communications technologies most expected to improve academics over the next five years” (Economist Intelligence Unit 2008, 6).

Collectively, these descriptions and insights provide us with a glimpse into the world and learning culture of N-Geners as learners. They have developed discerning and sophisticated tastes in digital

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environments; and they also have in their hands powerful, user-friendly communicative tools which allow them to consume, create, present, share and exchange texts, sounds, images, multimedia and hypermedia elements 24-7-365. But online offerings in seminary education rarely assume a built pedagogy modeled after the Web 2.0 paradigm. This, plus the educationally ill-informed incorporation of web technologies, often effects uncritical migration of unproductive pedagogies into the electronic arena.

A decade ago, Linda Cannell noted that “when higher education institutions accommodate distance education, they tend to do so ... from within an instructional paradigm” (1999, 17) rather than from a learning paradigm. Other accounts illustrate how digital technology has been deployed to reinforce traditional classroom practices rather than to reform them (Delamarter 2005; Viktora 2005). My study of online learner-content, learner-learner, and learner-instructor interactions in a blended *New Testament Survey* class at the Singapore Bible College revealed relatively static learner-content experiences in the online environment. Comments provided by two students interviewed illustrate this:

The texts are all there. That’s why I said, “The reading is OK.” But the interactivity to the content is not there. In terms of content wise, it is delivering its content, but it is delivering in a very textual format. That’s why I said it can be done better. (Chong 2006, 102)

Sometimes in the website, it is all text. Sometimes it is really boring. It’s only sense of looking and reading. And so I earlier mentioned audio and adding some interactive stuff. It really makes mind to work, learn by any sense. Some people are more learning through their reading. Some people learning from watching, looking. Some people are doing

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some certain things and through experience they learn something. I think online is good, but if do a lot of different way of teaching, as much as possible, use a lot of sensual techniques, this will help different people to learn different way. (204f)

Notwithstanding the shortcomings, there are encouraging examples of successful usage of web-based technologies for the purposes of theological training. For example, interactions in online threaded discussions have been shown to promote higher-order thinking amongst seminary students (Ascough 2002; Eng 2004); and online learning experiences have enabled global Christian partnerships which support mutual teaching and learning about cultural discipleship (Roels 2004). Hess has best summarised the value of web-based technologies to allow theological educators to bring more effective alignment between educational purposes and processes by

(i) providing a richer, more multiply intelligent environment within which to learn; (ii) providing more opportunities for collaboration; (iii) giving teachers a better angle of vision on the challenges their students are facing and the specific assumptions with which they enter courses; (iv) providing better access to primary source materials; (v) overcoming constraints of geography and time; and (vi) attending to the meaning-making contexts of our students and our communities of faith. (Hess 2005, 77, 88-89)

CONCLUSION

The 21st century world—including Asia—is globally connected, pluralistic, and informational. Recent history has seen unprecedented transformations in how and where societies and individuals communicate,



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interact, learn, spend their time, and are socialised. These changes have a profound impact on society, the Church, and seminaries.

This paper has sought to help readers understand the emerging Net Generation's learning characteristics, preferences and expectations, and the challenges that N-Geners introduce to the traditional structures and learning processes in seminary classrooms. But the call for theological educators to anticipate and prepare for the rise of the Net Generation is not primarily a call to greater technological commitment. The educational challenge for theological educators is to rise above being mere 'subject matter experts' with more technological tools at their disposal, to move to understand the assumptions embedded in educational spaces, teaching practices, and technologies used.

The educational hope is for the development of well-informed educational innovations and best practices within Asian seminaries, and for the presence of digital natives in theological institutions to catalyse reflection on "the most effective ways we can engage digital technology to address new thinking patterns" (Viktora 2005, 39). Therefore, the invitation is for theological educators to re-examine narrowly conceived 'sage on the stage' classroom roles and to recast their roles to become designers of effective learning experiences in both geographic and online classrooms. Demalarter sums this up well:

It seems clear that it is not the medium, face-to-face or online, that is inherently suited or not to theological formation: it is all about pedagogy. And pedagogy apparently knows no bounds. If you ignore its demands in either venue, you lose. And apparently there are ways in either environment to tend to it and win. (Delamarter 2004, 137-8)

The challenge is for theological institutions and their educators to have a growing awareness of what classroom as well as web-based

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technologies can do to promote learning, and to put learning and sound educational practice at the centre of theological education. This challenge is not for the faint hearted. It certainly requires reshaping of cherished educator intuitions and values, a willingness to explore useful learning technologies, participation in demonstrations of alternative designs of effective classroom learning experiences, and institutional commitment to the development of faculty as effective teachers. It also calls for regular *inter-* and *intra-*institutional sharing of best practices, and for input from ‘cultural brokers’ to help those in the theological seminary interpret and understand the Web 2.0 world and learning culture of the information rich, media savvy, technologically adept Net Generation.

Asian theological educators will then, with Larry McKinney, be able to assert that “technology provides an opportunity for teaching eternal values to those who are part of this information age” (McKinney 2003).

Dr Calvin Chong is Academic Dean of the School of Theology (English), Singapore Bible College, and a member of the ATA Value-Added Services Team. His current research seeks to draw attention to the global communications revolution and to explore ecclesiastical and educational responses to the emerging challenges it has introduced to our communities, congregations and children.

Calvin may be contacted at <calchong@sbc.edu.sg>.

ENDNOTE

1. This article has been drawn from my earlier article: Chong, C. (2009). The rise of the net-generation: Implications for educational renewal in the seminary classroom. In Kwok Wai-luen (Ed.), *Building Lives for Ministry: Collected Essays of Alliance Bible Seminary 110th Anniversary Consultation on Theological Education* (pp. 88-120), Hong Kong: Alliance Bible Seminary, 2009. Adapted and used here with permission.

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