The activities of the multimedia development process or MDP, which is the core of the multimedia design process, echo and reflect all the characteristics of a constructivist learning environment as stated by Cunningham et al., 1993). This constructivist learning is studentcentred and provides a complex and media-rich learning environment which can provide optimal development for the students' intellectual and academic capacity. It is a viable and effective alternative to the traditional instructional method.

### REFERENCES

Agnew, P. W., Kellerman, A. S., & Meyer, J. (1996). Multimedia in the Classroom. Boston: Allyn and Bacon.

Boud, D., & Feletti, G. (1999). *The Challenge of Problem-Based Learning* (2nd ed.). London: Kogan Page.

Cunningham, D. J., Duffy, T. M., & Knuth, R. (1993). The textbook of the future. In C. McKnight, A. Dillion, & J. Richardson (Eds.), *Hypertext: A Psychological Perspective*. Chichester, UK: Ellis Horwood, Ltd.

Jonassen, D. H., Peck, K. L., & Wilson, B. G. (1999). *Learning With Technology: A Constructivist Perspective*. New Jersey: Merrill/Prentice Hall. Luther, A. C. (1994). *Authoring Interactive Multimedia*. Massachusetts: Academic Press, Inc.

Neo, M., & Neo, T. K. (1998). *The Multimedia Pavilion: Trends and Technologies*. Subang Jaya, Malaysia: Meway Computec Sdn. Bhd.

Neo, M., & Neo, T. K. (2000). Multimedia Learning: Using multimedia as a platform for instruction and learning in higher education. *Proceedings for the MMU International Symposium on Information and Communications Technologies (M2USIC'2000)* (pp. S3-1.1 -S3-1.4), Petaling Jaya, Malaysia, October 5-6. Cyberjaya, Malaysia: Multimedia University.

Teo, R., & Wong, A. (2000). Does Problem Based Learning Create A Better Student: A Reflection? *Proceedings at the 2nd Asia Pacific Conference on Problem-Based Learning: Education Across Disciplines*, Singapore, December 4-7. Singapore: Temasek Polytechnic, Temasek Centre for Problem-based Learning.

Tan, O. S. (2000, December 4-7). *Thinking Skills, Creativity and Problem-Based Learning*. Paper presented at the 2nd Asia Pacific Conference on Problem-Based Learning: Education Across Disciplines, Singapore.

Tan, O. S. (2003). *Problem-based learning innovation: Using problems to power learning in the 21<sup>st</sup> century.* Singapore: Thomson Learning (a division of Thomson Asia Pte. Ltd.)

# THE 'POINT-AND-CLICK' GENERATION: Y NOT START HERE?

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#### ABSTRACT

This paper is an open discussion about worlds within worlds. It will consider the "point-and-click" generation and what is meaningful to its members in relation to the practices and approaches in academic libraries. The paper will include some suggestions and examples drawn from the literature and from our own experience.

#### **INTRODUCTION**

Good practice in learning and teaching has become a core activity for academic libraries. Despite our concerted efforts and most compassionate approaches, many students still prefer to use the frameworks they bring with them. To facilitate the building of bridges, we can initiate dialogue by using the students' framework, of experiences and processes, as a starting point, and not as a model of deficiency.

This paper is not going to leave you gasping with disbelief, nor will it be espousing any

groundbreaking theories. It might even be annoying to some because its message is so simple that it's like stating the obvious. But this message is capable of making such a profound difference that it cannot be overstated. At times we may seem a little over zealous, some might even say pedantic, but passion and exuberance lose their purpose when diluted with professional decorum.

Through professional observation and experience we have come to believe that,

- there is a lack of fundamental understanding that our learners and a certain carelessness about respecting and acknowledging the frameworks and processes they bring with them;
- students are not information "illiterate" when they come to the library in their first year;
- it is critical to establish an initial dialogue with our students to create a context and role for what we do in terms of how it has meaning in the frameworks that they use.

Information literacy initiates, sustains, and extends lifelong learning; it is, in effect, a prerequisite. It is common to all disciplines, to all learning environments, and to all levels of education (CAUL, 2001, p. 2). Learners demonstrate a conceptual grasp of lifelong learning when they are able to transfer what they have learned from one contextual environment to another, and when they reach an understanding of underlying structures and frameworks of meaning. Our students are failing to demonstrate lifelong learning as it is traditionally defined; particularly with respect to information literacy. This paper hopes to examine some of the reasons for this, and to acknowledge the skills and creativity students already possess.

# **RECOGNISING PRIOR EXPERIENCE AND KNOWLEDGE**

In November 2003, the University of New South Wales (UNSW) published a paper *Guidelines on Learning that Inform Teaching at UNSW* (UNSW, 2003). The 5<sup>th</sup> guideline reads, "Learning is more effective when students' prior experience and knowledge are recognised and built on" (p. 41). This guideline demands respect for the student, and their prior learning and experience, and asks us to set an educational context. That is, to explore with the students where the class fits within their experience and course of study, and how it is relevant to them.

The underlying premise is that our students do not enter the classroom as *tabula rasa* (blank slates). They each bring to every learning situation ideas and theories on the topic. These ideas and theories are developed, and accurate, to varying degrees. As educators, we must acknowledge this prior learning and experience, and use it as a base for the launching of new ideas and knowledge. It is no different when teaching information skills. By and large, the students we teach have vast experience in information seeking. They live in an information-based society and they grew up with the "information super highway," so the web is the first place they look. In a study conducted by the Online Computer Library Centre (OCLC, 2002), three out of four university students surveyed reported that they were completely successful at finding the information they needed for courses and assignments. Nearly two thirds felt strongly that they knew best about what information to accept from the Web and only 4 percent thought the quality of the information they found was not good enough for their assignments.

These students are supremely confident in their own abilities. They are people who believe they are already good information seekers. They share well-engrained beliefs that have been developed and tested over time. They do not approach searches for information haphazardly; they formulate "plans of action" which guide most searches, they think about their searches in advance, decide which resources to use, and develop a strategic approach to the chosen resources (California State University, San Marcos, 2001). If we are to successfully teach information skills to such students, we must start with what they know, or what think they know. Our job is not only to open them to new ideas, but also to dispel or modify ideas and habits that, to date, have convinced them that believe they are successful information seekers with competent strategies, i.e., they're passing aren't thev?

To do this, students require an understanding of the context and role of information skills. We can begin by teasing out existing beliefs, examining and testing these beliefs in the light of our mutual experience, and then adding refinements before re-absorbing the ideas back into consciousness. Although students believe they are good at searching for information, they readily acknowledge that they find very little appropriate information when using the Web. More useful information could be gathered in less time through effective database searching (California State University, San Marcos, 2001). In many information skills classes we skip the "teasing-out-existing-beliefs" stage and do not accommodate the students' need to examine and test out the truth of our claims. We head directly to the resources, the new ideas. We say, "These are what you need" and wonder why they resist.

This resistance may be overcome through taking the time to build bridges from the students' ideas to ours. By starting with the students and their experience, we may lead them to discovering for themselves that their current methods, while possibly adequate, might be improved. This means listening to them and taking the time to set the educational context for the class. We should not assume that if we demonstrate the resources, the students will automatically see the value in them. This requires a willingness on our part to relax traditional attachments to the "best" way of seeking information, and spending more time paying attention to who our students are and what is important to them.

### WHO ARE OUR LEARNERS?

Tertiary students today are very different to those of 25 years ago. The student population is more diverse and more likely to have competing priorities between family, work, and study. Some are returning to study after many years in the workforce, and others are members of "Generation Y". This group are the impossibly young-looking 18-25 year-olds dressed to the nines in Burberry and Louis Vuitton or dragging their baggy jeans behind them, looking for all the world like a Hip Hop contingent off MTV. However they are dressed most will be clutching the ubiquitous mobile phone that keeps Generation Y connected via 3<sup>rd</sup> generation technology 24x7

A subset of 18-25 year-olds, members of Generation Y are cynical, street-wise, and remarkably resourceful. They are adaptable, talented, and innovative, but they are also desensitised, skeptical and disengaged. They first want to understand the reason behind any direction, assertion, or policy. They want to know, "Why?"(Chester, 2002)

The expectations these students bring with them strongly influence their attitudes, beliefs, and teachability. Their world is online, immediate, convenient, visual, subjective, non-linear, and constantly changing. What's more, they expect this in all areas of their lives. When they come to the library and sit in our classes or attempt to use our services and collections we find ourselves staring at each other across an impassable ravine. Our library world is controlled, hierarchical, linear, factual, and highly structured (Harley, Dreger, & Knobloch, 2001). Developing a greater understanding of their priorities and what makes them "tick", and modifying our approach, will help bridge this ravine and elicit the most from this group (Chester, 2002).

## **CONTRIBUTING FACTORS**

Not all students are the same. There is no single solution, no one type of user, nor one preferred pattern of use. But there are common profiles.

One of the terms used in the literature to describe today's students is "postmodern". Postmodernism is concerned with the organisation of knowledge. For the postmodernist knowledge is functional. There are no universal truths. One learns things to complete a task (Klages, 2004). Knowledge becomes a "thing" that you put together in pieces, its value is not intrinsic; rather it is utilitarian.

Not only does an understanding of postmodernism gives us a clue as to how Generation Y students conceptualise "knowledge", it gives an indication as to why these students have such difficulty with grasping conceptual frameworks such as information literacy. Some of the characteristics of the postmodern condition, specifically consumerism, superficiality, and knowledge fragmentation, also inform us about the way such students approach our services and, in particular, our classes (Harley et al., 2001, p. 24).

# Consumerism

University students today are becoming more like consumers. They are paying everincreasing amounts for their degrees. Becoming consumers affects their attitudes towards learning and library services. They exercise their right to choose and favour what is the most convenient (Koh, 2003, p. 185). Given the online nature of our world they will choose convenience over quality, almost every time. They want what costs the least and, for Generation Y, in particular, the most prized currency is their time, and related to that, their effort (Harley et al., 2001). This sets up an information economy in which convenience outweighs quality.

A byproduct of a consumerist attitude is the tendency to commodify. Our pedagogy must consider the effects of a culture in which everything has become a commodity. "Generation Y students pay money to get information not to learn how it is constructed" (Harkin, 1993, pp. 5-6). Such students see what they learn at university in utilitarian terms. It's an insurance policy. You learn what you learn not to be knowledgeable but to avoid a problem further down the track if you ever find yourself in a situation that might require that specific set of knowledge skills.

# Superficiality

Part of the fallout from a consumerist approach is being brand conscious so it becomes all about outward appearances. Fro example, students who aren't wealthy can still get around in Tommy Hilfiger – it's just not real Hilfiger. The clothing may be poor quality and may be breaking copyright laws and therefore be illegal, but it satisfies the need of such students to "look" the part. This has implications for the way that they seek information. A concern with outward appearances usually means disengagement with underlying structures, mechanisms or meanings (Harley et al., 2001, p. 2: Koh, 2003, p. 186). Focus is on the search results and how this is related to the assignment (and the final mark) rather than the quality of the results or the integrity of the search process. "These students just seem to want the search recipe, download an article and go!" (Owen, 2003, p. 476). They don't read search instructions and may not even realise their searches are not efficient. Harley et al. (2001, p. 3) make the fair comment that the Web reinforces a superficial approach to information and research because of the nature of its GUI (graphical user interface) point-and-click interface that "conceals more than it reveals".

# **Knowledge Fragmentation**

For postmodernists there is no single truth; all things are to be regarded with equal consideration. This tends to lean toward a more subjective approach to knowledge where validity or truthfulness of information is an attribute assigned by individuals.

This impacts on students' abilities to critically evaluate resources, especially on the Web. The ability of the Web to allow jumping from hyperlink to hyperlink adds to the problem as it fragments knowledge into "bits", and the bits are *not* reassembled in order to create new knowledge. In the event that new knowledge is created, it is not transferred to other contexts where it may be applied. The results of fragmentation "shorter attention span, inadequate preparation, a grade and not a learning orientation ... an interest in the surface and not the substance of things" (Harley et al., 2001, p. 3) seem bleak, but it's not an unworkable situation.

Keeping in mind our knowledge of this "generation" and of the unholy trinity of consumerism, superficiality, and knowledge fragmentation, how do we begin?

First and foremost, by being adaptive. Brookfield (1998) believes to be an effective teacher you must be a reflective practitioner. The reflective practitioner is constantly looking through four lenses; one's own experiences, the student's experience, the experience of colleagues, and the literature. They then adapt their teaching in response to what they discover.

Lorie Roth challenges us with the Darwinian statement, "The response to this challenging new environment and new breed of student is not to lament, prohibit, control, or ignore but to adapt" (Roth, 1999, p. 43).

Most of us, when teaching, know when it's not working. We see the SMS "texters" up the back, the people reading the paper online, or those answering their email in the middle of a class. We also see the students who have completely disengaged, with glazed expression, just waiting for the class to end. There's nothing more discouraging than this scenario; nor is there anything more wasteful. We are wasting our time and that of such students. The statement so often heard from colleagues that this scenario is "...better than nothing." Holds dubious validity. In this millennium the roles of librarians are so complex and demanding that time and resources could be much better spent, if only in finding ways to interact more effectively with our students.

Learning theorists (Toohey, 1999; Biggs, 1987) talk about learning outcomes in terms of their importance in expressing and clarifying educational purpose. Documented, expected learning outcomes open the agenda so that students know what the subject offers and what is expected from them. When teaching information skills, it's best to be mindful of this. Too often, the expected learning outcomes are flashed up at the beginning of the class and never referred to again. If we're going to write them, why not use them to improve the effectiveness of our teaching? Use our expected learning outcomes as a stepping-stone to setting the educational context from which learning will be launched. Biggs (1987) outlines a number of requirements that lead to learning, one of which is the educational context. If the students have not agreed to the value and the purpose of the information-skills class, where is the learning to come from? What reason is there to learn if there is no context?

Set the context, and initiate the conversation about information skills by beginning the class with a mutual agreement about the expected learning outcomes. Better still, let students set their own learning outcomes. Provide a contextual map or picture of how information skills fit into their picture. Use diagrams and images; Generation Y students are visual. Suggest what an appropriate outcome might look like. Give them time to think about their current information-seeking practices and then agree on the outcomes for the class. In this way, they will be targeting which skills they find relevant to their perceived information needs, and the conversation will have begun.

Why not begin the next information class with Google? This provides opportunities to gain insight into the student experience and to impart an initial understanding of the strengths and limitations of Google and their other preferred search tools. Why not give the students a reason they can relate to that may cause them to want to start looking in other places for their information. The students need to discover for themselves the relevance of information skills and the tools we are promoting.

Setting a search question relating to their course of study is not creating relevance. We make it relevant by relating it to their experience. It becomes relevant when students are able to see how information skills are applied to their situation and are different to what they already know. Unless we've tackled the limitations of their current search methods, students don't have a reason to be listening. They believe they have a better way of doing it. We've jumped ahead of them and have become irrelevant – the connection has been missed.

The Web is not going to disappear. Students will still be using it long into our retirement. So while we have the chance to do so, we can provide them with some good modelling. Better they connect and come back than be overwhelmed and intimidated by being told that their processes are suspect and incorrect. So why not make time in our classes to ask the students to explore their current informationseeking practices? Ask them to consider the efficiencies and inadequacies of their searching. Really listen to what they say and use this feedback to adapt future classes. The effectiveness of information-skills classes may be improved through being reflective (Brookfield, 1998).

Any attempt to teach the skills required for the development of information literacy would be enhanced if the effort was also embraced by academics. Findings from Social and Behavioral Research Institute study (California State University, San Marcos, 2001) suggest that information competence needs to be viewed as the responsibility of both faculty and librarians. Many librarians are already in the faculties talking with academics; constantly devising new ways of reaching our students. There's more to teaching these skills than just planning a wellintegrated class. It means having discussions that lead to authentic relevance. This type of relevance can only occur when students create their own meaningful relationship with information skills and take responsibility for their learning.

In integrating information skills classes there is the need to be aware of unintended consequences of interventions (Ramsden, 1992). Students make their own interpretation of our actions, so no matter how well-intentioned the learning activities are, students may still work around any real learning. In talking about unintended consequences, Ramsden gives two examples of situations in which attempts to foster deep learning had the opposite effect. The students responded with surface learning because their perception of the learning activity was different to the one intended.

A great deal of student learning is about adapting to the requirements of teachers. One wonders if in integrated classes, our intentions are lost in translation, resulting in unexpected student outcomes. Many integrated classes are closely tied to a single assignment. Students have learned how to fulfil the required steps without engaging in the underlying structure or creating the necessary meaning. When they can't recreate the process in a different context we may rightly assume that what has taken place is adaptation, not learning. "The quality of learning can be questioned if the knowledge gained cannot be applied to new, dissimilar problems (general transfer) or at least to situations that are similar, but not identical" (Salter, 2003, p. 138).

One response to this may be to consciously devote a component of the integrated class to a "bigger picture" conversation with the students. It might even have to take precedence over an historical and professional urge to "cover content" and it may be that this conversation is needed with many academics as well.

### CONCLUSION

This message is simple. Today's university students, particularly those in their first year, aren't responding, as we would hope – not to academic requirements and certainly not to the services traditionally provided by the library. Why? There are many reasons. How do we change it? It's not up to us; ultimately, it's up to them. As learners, they have to want it. How do we help them with this willingness? We make ourselves (and our services) more relevant to their lives. We take time off from teaching processes and start to talk about what matters. We take a considered look at their world and with an open mind ask ourselves "Why *not* start here?"

#### REFERENCES

Biggs, J. (1987) *The Process of Learning* (2<sup>nd</sup> ed.). Sydney: Prentice-Hall.

Brookfield, S. D. (1998). On the Certainty of Public Shaming: Working with Students who 'just don't get it'. In G. Gibbs (Ed.), *Improving Student Learning: Improving Students as Learners*. Oxford, England: Oxford Centre for Staff Development.

California State University, San Marcos, Social and Behavioral Research Institute. (2001). *CSU Information Competency Phase II Final Report*. Retrieved January 19, 2004 from, http://www.csupomona.edu/~kkdunn/lcassess/

(CAUL) Council of Australian University Librarians. (2001). *iL Information Literacy Standards*. Canberra:

CAUL. 1<sup>st</sup> edition available online from, http://www.caul.edu.au/caul-doc/InfoLitStandards2001.doc

Chester, E. (2002). *Employing Generation Why*, "Understanding, Managing and Motivating Your New Workforce. Lakewood, CO: Tucker House Books.

Harkin, E. (1993). *Teach the Commodities*. Toronto: MLA Division on Teaching as a Profession

Harley, B., Dreger, M., & Knobloch, P. (2001). The postmodern condition: students, the web & the academic library services. *Reference Services Review* 29(1) 23-32. Retrieved November 11, 2003 from the Proquest database.

Klages, M. (2003). *Postmodernism* Retrieved January 17, 2004 from, http://www.colorado.edu/English/ENGL2012Klages/ pomo.html

Koh, C. (2003, September). Reconsidering services for the post modern student. *AARL*, *34*(3).

Online Computer Library Code (OCLC). (2002, June). White Paper on the Information Habits of College Students : How Academic Librarians Can Influence Students' Web-Based Information Choices. Retrieved January 19, 2004 from, http://www5.oclc.org/downloads/community/ informationhabits.pdf

Owen, S. (2003). It takes more than breadcrumbs to learn generic skills: Collaborating to improve information literacy. In C. Bond, & P. Bright (Eds.), *Learning for an unknown future: proceedings of the annual international conference of the Higher Education Research and Development Society of Australasia (HERDSA)* (pp. 472-482), Christchurch, New Zealand. 6-9 July. Christchurch: HERDSA.

Ramsden, P. (1992). *Learning to Teach in Higher Education*. London and New York: Routledge

Roth, L. (1999, November). Educating the cut and paste generation. *Library Journal*, *1*(124), 18.

Salter, G. (2003). Comparing online and traditional teaching – a different approach. *Campus-Wide Information Systems*, 20(4), 137-145.

The University of New South Wales (2003, October), *Guidelines on Learning that Inform Teaching at UNSW*. Retrieved November 11, 2003 from http://www.unsw.adfa.edu.au/flex-edresources/downloads/FulLngTehg.pdf

Toohey, S. (1999). *Designing Courses for Higher Education* Buckingham: Society for Research into Higher Education and Open University Press.