	<p style="text-align: right;">Date : 03/07/2007</p> <p><b>Building a Virtual Learning Commons: What do YOU want to do?</b></p> <p><b>Betty Braaksma</b> University of Manitoba Libraries, Winnipeg, Manitoba, Canada</p> <p><b>Kathy Drewes</b> University of Manitoba Libraries</p> <p><b>George Siemens</b> Learning Technologies Centre, University of Manitoba</p> <p><b>Peter Tittenberger</b> Learning Technologies Centre, University of Manitoba</p>
<p><b>Meeting:</b></p>	<p><b>133 Academic and Research Libraries with Information Literacy</b></p>
<p><b>Simultaneous Interpretation:</b></p>	<p>No</p>
<p style="text-align: center;"><b>WORLD LIBRARY AND INFORMATION CONGRESS: 73RD IFLA GENERAL CONFERENCE AND COUNCIL</b> 19-23 August 2007, Durban, South Africa <a href="http://www.ifla.org/iv/ifla73/index.htm">http://www.ifla.org/iv/ifla73/index.htm</a></p>	

**Abstract:**

*In 2006 the University of Manitoba's (UM) Libraries and Learning Technologies Centre collaborated to create an online tutorial to support the development of international students' information literacy skills. The International Student project addressed the unique needs of foreign students by using a broad spectrum definition of information literacy, which includes supporting development of social and cultural skills as well as information-seeking ones. In addition to informational content, the developers incorporated Web 2.0 functionality to enable students to interact outside of the classroom. The final product was placed in the university's new Virtual Learning Commons, a webspace designed to be a central location for online learning and discussion.*

**Introduction**

In 2006 the University of Manitoba Libraries (UML) received a grant to produce a web-based tutorial for international students. Based on the existing *eTools*<sup>1</sup> project, the International Student Tutorial was envisioned as a way to address the unique needs of foreign students by including information on Canadian life and culture along with basic information literacy concepts.

The University's of Manitoba's Learning Technologies Centre (LTC) also received funding to create a new online resource for all students. The first goal of the LTC's project, called the Virtual Learning Commons (VLC) was to put many of the university's scattered online learning resources into one convenient web-based location. The second goal was to attempt to foster a

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<sup>1</sup> Betty Braaksma, Cheryl Maclean and Peter Tittenberger, "Tools for Information Literacy", World Library and Information Congress: 72nd IFLA General Conference and Council 120--24 August 2006, Seoul, Korea [http://www.ifla.org/IV/ifla72/papers/072-Braaksma\\_McLean\\_Tittenberger-en.pdf](http://www.ifla.org/IV/ifla72/papers/072-Braaksma_McLean_Tittenberger-en.pdf)

sense of community and create learning opportunities beyond the classroom by the application of Web 2.0 technologies, specifically social networks.

Since the Libraries had partnered with the LTC for *eTools*, they were invited to participate in the VLC project as a content provider. Thus the Libraries' International Student Tutorial became the International Community within the VLC.

This paper will briefly review the background of the project, including a profile of the international student community at the University of Manitoba, librarians' perceptions of foreign students' library experiences, and published studies of the information literacy needs of international students. It will also give an overview of the process of creating both the information architecture and Community content for the Virtual Learning Commons. Finally the paper will look forward, to examine the VLC's successes and shortcomings, and how the International Community could be made even more effective.

## **Background**

The University of Manitoba is the largest university in the province and as such attracts many international students. The latest enrolment statistics show 2661 international students registered, comprising nearly 10% of the total student body.<sup>2</sup> The majority of students come from China, with India and Nigeria taking second and third place, respectively. Most foreign students are undergraduates, with the largest subset enrolled in the University 1 (U1) program. "U1" is a program unique to the University of Manitoba, designed specifically to help all freshmen make the transition from high school to university. Supports such as a student help centre and an Introduction to University course aim to help students adjust and succeed. International students are given even more support with assigned mentors and special sections of the Introduction to University course.

The University's Student Affairs department has two areas which exist to help international students. The first is the International Centre for Students, (ICS) which helps foreign students with many of the details of moving to, and living in, a new country and city. The ICS also holds day-long orientations each semester which include information on such concerns as drivers' licenses, safety and security, housing, work permits, immigration information and health care.

The second area is the English Language Center (ELC), which helps students whose first language is not English to prepare for academic life and to support students already taking courses. While the focus is on developing language skills in an academic setting, the ELC also provides study skills workshops, which have a large library component. The ELC also offers training to teachers of international students, to help them with the communication and cultural differences that they may encounter in their classes.

The University of Manitoba Libraries, which are located on 2 university campuses and in several satellite locations around the city of Winnipeg, serve many international students each day. The largest units, (the Sciences Library, the Neil John MacLean Health Sciences Library and the Elizabeth Dafoe Arts, Humanities and Social Sciences Library), serve the most students, although the smaller Albert D. Cohen Management Library also has a large international clientele. Reference librarians have developed tours and instruction sessions geared to international students, which have been included in the International Centre for Students' orientation days. The Libraries Public Services Committee also created the "Multilingual Library Services" staff directory. This directory lists all Libraries staff who have multiple language skills, and who are prepared to help international students navigate the Libraries in their own language.<sup>3</sup> There are currently 20 languages listed in the directory.

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<sup>2</sup> The University of Manitoba, Office of Institutional Analysis: 2005-2006 Institutional Statistics. [www.umanitoba.ca/admin/institutional\\_analysis](http://www.umanitoba.ca/admin/institutional_analysis)

<sup>3</sup> <http://umanitoba.ca/libraries/services/multilingual.html>

In spite of these efforts, it was felt that more support was needed. At the reference desks and in the library labs, librarians reported that international students seemed to be having greater difficulty using library resources than North American students. The idea to create a specialized tutorial for international students was born.

### Literature review

The University of Manitoba librarian reports of international student difficulties with the North American academic environment are supported by a considerable amount of evidence in the library science and education literatures. A comprehensive review is not within the cope of this paper, but several key works can be highlighted.

In 1995, Nancy Moeckel and Jenny Presnell identified 3 main barriers to international student success in North American academe, based on differing cultural norms. They were:

- a contrast in pedagogical traditions,
- different expectations and experiences of libraries
- language.<sup>4</sup>

The differing pedagogical models of Western and Eastern education have been explored in a number of works, including Bill Badke's Beyond the Answer Sheet: Academic Success for International Students.<sup>5</sup> Badke calls the two educational philosophies the Discipleship Model and the Western Model<sup>6</sup>. These traditions have also been called the Confucian Model and the Socratic Model.<sup>7</sup>

In the Discipleship/Confucian Model,

“The teacher, who is an expert or master in a certain kind of knowledge, passes on that knowledge to students who are expected, during their lifetimes, to become great in that knowledge themselves so that they can teach the next generation in turn.”<sup>8</sup>

In the Western/Socratic model, “the goal of education is not to gain knowledge, but to use knowledge to solve problems.”<sup>9</sup>

The manifestation of these two approaches can be summarized this way: “most international students are accustomed to lecture, recitation, rote memory, and recall, while American students are accustomed to analyzing, synthesizing, critiquing and expanding.”<sup>10</sup> One of the biggest issues in universities today, plagiarism, has been linked at least in part to differing cultural norms. “While unacknowledged verbatim reproduction of texts and lecture notes is considered a serious breach in Western academia, it is expected practice in Eastern cultures.”<sup>11</sup>

The second barrier is differing experiences of libraries. Moeckel, Presnell and Helms noted that in many countries libraries operate on a closed-stack system, and are used more as study halls

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<sup>4</sup> Nancy Moeckel and Jenny Presnell, “Recognizing, understanding and responding: A program model of library instruction services for international students”, The Reference Librarian, New York: Haworth, no. 51/52, 1995 p. 311.

<sup>5</sup> William B. Badke, Beyond the Answer Sheet: Academic Success for International Students, New York: iUniverse, Inc. 2003.

<sup>6</sup> *Ibid.*, pp7-9

<sup>7</sup> Roger G. Tweed and Darrin R. Lehman, “Learning considered within a cultural context: Confucian and Socratic approaches.” American Psychologist, Vol. 57(2) February 2002, pp 89-99

<sup>8</sup> *Op.cit.*, p. 7

<sup>9</sup> Badke, p. 9

<sup>10</sup> Cynthia Mae Helms, “Reaching out to the International Students through bibliographic instruction,” The Reference Librarian, New York: Haworth, 1995. No 51/53. p. 296.

<sup>11</sup> Hilary Hughes, “Information literacy with an international focus”, 2<sup>nd</sup> International Lifelong Learning Conference, Central Queensland University, Australia. 2002. Unpaginated.  
<http://lifelonglearning.cqu.edu.au/2002/papers/Hughes.pdf>. Accessed April 23 2007.

than as research centres. Students rely on textbooks and notes, rather than library resources.<sup>12</sup> These studies were done before the Internet became a pervasive research tool. Has the explosion of electronic forms of information, the “Googlization” of research and the advent of user-created or altered content (Web 2.0) changed the comfort level of international students in the library?

Hilary Hughes has done extensive work in the field of international students and online information use. In her 2002 paper, she reiterates the barriers identified by Moeckel, Presnell and Helms, and goes on to point out that “while many international students are experienced computer users, others from less-developed countries may have lower levels of IT competence. Many, including those with good practical IT skills, lack adequate vocabulary, and are unaccustomed to database searching or evaluating information from the Internet and other sources.”<sup>13</sup>

These assertions would seem to be contradicted by a Virginia Tech study published in 2007. It notes that “according to the Fall 2003 International Student Survey at San Jose State University, 94 per cent of incoming international students used a library in their home country...of those, 84 per cent used a computer inside the library. Digital library access and research are no longer new to many international students.”<sup>14</sup> At Virginia Tech, international graduate students used online library resources with confidence, although they were not well informed about library services, and the authors also noted that “they may need some instruction on higher level information competence skills.”<sup>15</sup> There are indications in the literature that students’ difficulties with the mechanics of database or OPAC searching have been largely overcome as ICT skills become more pervasive, but there is also evidence to suggest that evaluation and application of information resources are still problematic areas.

The final barrier to effective library use is the most obvious one, that of language. Many papers have discussed this problem, which is further complicated by library jargon. “In focus groups at a major university, several Chinese students hesitantly stated that they were somewhat confused by the use of “Check out Books” on a sign. For this group of students, “check out” implied “examining or searching”. They were not interested in being examined or searched.”<sup>16</sup> There is now some question as to whether language is as large a barrier as initially thought. Pamela Jackson’s 2005 study notes that “English language proficiency is required of all university students”<sup>17</sup> and the Virginia Tech study reports that “English proficiency level does not appear to be a barrier to successful library use.”<sup>18</sup> In contrast, Hughes found that language limitations did play a role in online searching difficulties. In her 2005 study, the issue of jargon or a specialized vocabulary was identified as a barrier by the students themselves: “discipline-specific and information science jargon and ‘academic English’ caused the greatest concern.”<sup>19</sup>

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<sup>12</sup> Helms, p. 296.

<sup>13</sup> Op cit., p3

<sup>14</sup> Yan Liao, Mary Finn, and Jun Lu, “Information-seeking behavior of international graduate students vs. American graduate students: A user study at Virginia Tech 2005,” *College & Research Libraries*, January 2007, Vol. 68 No. 1, p. 7.

<sup>15</sup> Ibid., p 24.

<sup>16</sup> Jian Wang and Donald G. Frank, “Cross-cultural communication: Implications for effective information services in libraries”, *portal* Libraries and the Academy. Vol. 2, No. 2, 2002. p. 211.

<sup>17</sup> Pamela Jackson, “Incoming international students and the library”, *Reference Services Review*, Vol. 33 No. 2, 2005. unpaginated.

<sup>18</sup> Liao, p. 24.

<sup>19</sup> Hilary Hughes, “Actions and reactions: Exploring international students’ use of online information resources”, *Australian Academic and Research Libraries*, 36 (4), December 2005, p4.

Both frontline experience and the literature review verified that although international students are the much same as other undergraduates in their use of library resources, they still have some unique needs which require extra support.

Five themes emerged from the literature as ways in which this support could be offered:

- Information literacy standards can be used as a framework upon which to build instruction specifically for international students
- Libraries should collaborate with other campus departments or offices to create a multi-modal way of reaching out to international students. Collaboration with the students themselves is also important
- Tutorials, web pages and handouts should be designed specifically for international student use. Language should be clear and free of jargon. Illustrations/graphics are beneficial. Tutorials should be modular to allow for self-paced, point of need learning or as reinforcements to classroom instruction
- Group study opportunities should be offered. Liao, Finn and Lu discovered that international students do more group study in libraries than domestic students and some “prefer searching information in online discussion forums.”<sup>20</sup>
- Instructional design should go beyond providing standard library orientation information: “Handouts and training should not only teach international students about library services and resources. They should also provide information about: library terminology, organization of materials, source citation examples and academic honesty/plagiarism policy, layout of the library, and most importantly, where to go for help”<sup>21</sup>

### **Project design**

The original concept of a tutorial for international students called for a fairly traditional structure. Modularity was included in the original design, based on the existing *eTools* product used in the Introduction to University course. It was also recognized that clarity of language and navigation would be important. A gaming element was considered in early project planning. In this version, students would be able to select an undergraduate character, either from Arts/Humanities/Social Sciences or from the Sciences, and follow their adventures through the stages of the information literacy process. The desire was to have a product that would be interactive, informative and engaging.

From the outset it was decided that the tutorial’s content would have more than just library information, and that a collaborative network of stakeholders should be established to help determine what that content should be and how it should be presented. An advisory committee was struck to discuss what was needed. In addition to the Information Literacy Coordinator and reference/instructional librarians, the committee was composed of representatives from the International Centre for Students, The Learning Technology Centre, the Learning Assistance Centre and the English Language Centre, as well as an undergraduate student from Macedonia and a graduate student from Africa.

In its first meeting, the committee decided that the tutorial should enable personal interaction/connections as well as providing information literacy content, and social/cultural knowledge. Originally the personal interaction was seen as a type of blended learning, with the

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<sup>20</sup> Liao, p.23

<sup>21</sup> Sara Baron and Alexia Strout-Dapaz, “Communicating with and empowering international students with a library skills set”, *Reference Services Review*, Vol. 29, No. 4 2001. pp 319-320.

tutorial being used to supplement classroom instruction or workshops. As planning progressed, another option to facilitate personal connections became available.

### **The Virtual Learning Commons and Web 2.0**

At the time that the International Student Tutorial was being developed by the Libraries, another initiative was underway, spearheaded by the University of Manitoba's Learning Technologies Centre. Called emporiUM, and later renamed as the Virtual Learning Commons (VLC) the project was envisioned as a way to provide "one-stop shopping" for information from a number of academic support services, such as the Learning Assistance Centre. Instead of building a web page with content organized by administrative unit or service, the VLC was to be structured around identifiable client groups, or communities.

Going further, it was envisioned that the VLC would have a Web 2.0 application which would integrate student support resources within a social networking environment. The VLC would approach student learning from a holistic perspective, recognizing that a student's personal development is not separate from his/her academic development, that informal learning plays a crucial role in academic development, and that learning is a process of social participation. This echoes Hilary Hughes' assertion that international students in particular "encounter varied and inter-related...social, economic and educational challenges" which indicate that a collaborative approach to teaching and learning is needed.<sup>22</sup>

### **Project Motivation**

Few arguments need to be made for how learners today are different from previous generations. White ear buds of iPods abound on campuses. Students move between classes, heads down, texting (rather than talking) into their mobile phones. Video games compete for student's attention and finances. Media consumption has shifted from broadcast (TV) to engagement (Internet). These changes are the small public expression of learners who are, according to Mark Prensky, fundamentally different in their media and entertainment habits. Marc Prensky states<sup>23</sup> that by the time they reach college, today's children have: 5,000 hours reading, 10,000 hours playing video games, 10,000 hours on their cell phones, 20,000 hours watching TV. As a group, they send 6 billion text messages daily, and have sent and received over 250,000 text messages and emails, and have seen 500,000 commercials – all before the age of 21. Today's youth has a different profile and approach to interaction, community, and engagement.

The manner in which the younger generation of learners interact with technology provides additional indications of differences. While their email use<sup>24</sup> is slightly less (for the people within the 12 – 28 age group), video game use, text and instant messaging, online video, and blog readership, are substantially higher than other age groups. Some reports site extremely high use of social software tools among university-age students (TechCrunch cites<sup>25</sup> 85% use on university and college campuses, others cite use – with first year students – of 94%<sup>26</sup>), with 75% of site registrants log in at least once every 24 hours (NYTimes<sup>27</sup>). High adoption and use of tools like Facebook have prompted some universities and colleges, such as Cornell<sup>28</sup>, to publish guidelines for responsible use. While not always prudent in their online habits, initial research suggests today's students are more connected, more social, and more collaborative than any previous generation.

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<sup>22</sup> Hughes, "Actions and Reactions" p. 6.

<sup>23</sup> Mark Prensky, "Don't bother me Mom - I'm Learning!" 2006. p.28

<sup>24</sup> [http://www.pewinternet.org/pdfs/PIP\\_Generations\\_Memo.pdf](http://www.pewinternet.org/pdfs/PIP_Generations_Memo.pdf)

<sup>25</sup> <http://www.techcrunch.com/2005/09/07/85-of-college-students-use-facebook/>

<sup>26</sup> <http://chimprawk.blogspot.com/2006/01/student-life-on-facebook.html>

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<http://www.nytimes.com/2006/01/08/education/edlife/facebook.html?ex=1176436800&en=b6963f7429268a8e&ei=5070>

<sup>28</sup> <http://www.cit.cornell.edu/policy/memos/facebook.html>

The substantial trends at the doorstep of higher education largely reflect the changed manner in which learners relate to each other and to content (news and information). The following list provides an overview of key trends:

1. Growth and adoption of alternate reality games such as SecondLife and online virtual environments (defined by the high level of interest in massively multiplayer online games such as World of Warcraft).
2. Immediate information access provided by Google Scholar, Scopus, and other academic services.
3. Creative Commons licensing, Wikipedia, and university or publicly funded open content sites, extending the expectations of open access to learning content.
4. Content aggregation through sites like Netvibes, Bloglines, and Pageflakes fosters expectations of personalization.
5. Content re-creation through Yahoo Pipes and Teqlo, entrenching expectations of content remixing and repurposing.
6. Content mashups through open APIs – Google MyMaps, or Twittervision, bringing together different services, based on open APIs and creating personally meaningful information.
7. Dialogue and conversations now occur through blogs, podcasts, and more recently, nano-communication sites like Twitter, Tumblr, and Jaiku, creating a strong sense of transparency.
8. YouTube and end user generated video sets the stage for self-expression
9. Social hyper connectivity through social networking sites foster continual dialogue and connectedness
10. Wikis, blogs, and other shared, collaborative and social spaces create the assumption of co-creation and collaboration in learning activities.

Today's students are entering higher education with a different understanding of content and relationships. Continual, constant connectivity shapes their conversation-based interaction with the world.

Unfortunately, universities and colleges have largely ignored these trends. While the world outside has turned content into conversations, brought collaborating amateurs (the work of many as evidenced by Wikipedia, YouTube, and numerous other sites, prompting Time Magazine to declare<sup>29</sup> “you” – the creator of amateur content – it's Person of the Year) to an almost equal footing with experts, classrooms have largely remained unchanged. When technology is adopted, it frequently duplicates in class activities – like the hierarchical model of WebCT, Blackboard or other learning management systems. Similarly, the rapid popularity of virtual classrooms like Elluminate and Adobe's Connect, suggests educators are more comfortable transferring existing activities to the online world, rather than transforming their approaches to meet the affordances of the new space.

While change has certainly not settled to the point where clear decisions can be made, universities must begin to critically experiment with new models of engaging learners and exploring content. The transition to an institution capable of functioning in a manner reflective of the changed characteristics and context of knowledge will be progressive. Dave Snowden suggests four ontologies (Figure 1) for functioning in environments of different conditions. Conditions of unusual complexity, or even chaos (such as might well be said of education today), require a tight integration with the environment being explored. At this stage, the numerous trends and patterns emerging have not settled sufficiently to enable higher education to plan based on known paths of change or action. A more suitable direction is to engage with

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<sup>29</sup> <http://www.time.com/time/magazine/article/0,9171,1569514,00.html>

the context of changed elements through a series of experiments. The VLC is a first generation attempt at defining what learners expect from higher education, and what they will provide for themselves based on existing digital identities.

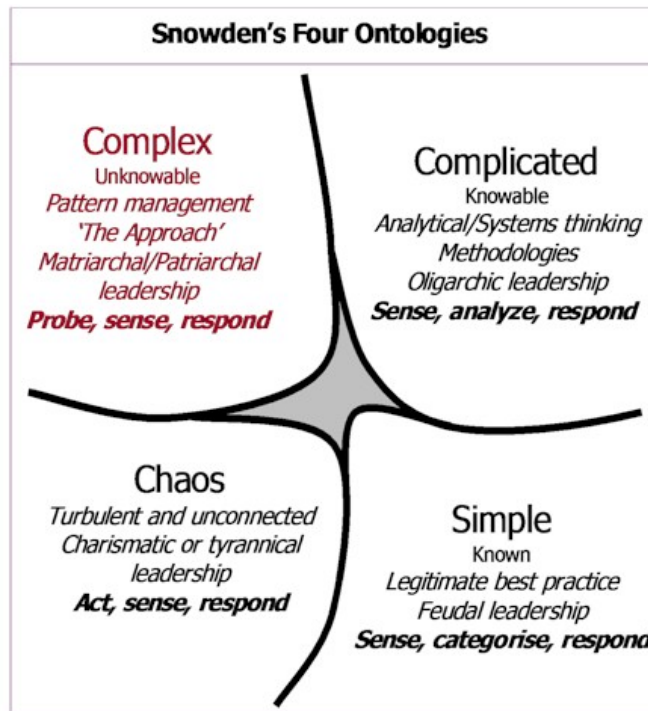


Figure 1: Snowden's Ontologies<sup>30</sup>

### The Vision:

The VLC pulls together many of the services previously offered by various departments across several University of Manitoba campuses. Key participants in the project include Libraries, Learning Technologies Centre, Learning Assistance Centre, eTools, and Faculty of Graduate Studies.

The VLC (screen capture in Figure 2) is an experiment in how universities and colleges might be able to change in order to stay relevant and current to today's learner. The project brings together several elements:

- Social networking service similar to Facebook and MySpace (profiles enabling learners to "find each other")
- Activity centered on key tasks, enabling learners to connect with others based on shared interests and "to do's" (similar to 43 Things)
- Resources for improving academic performance
  - Assignment manager – exports to calendar specified by learner
  - Support resources – "how to files"
- Online tutor services

<sup>30</sup> <http://blogs.salon.com/0002007/categories/businessInnovation/2005/03/24.html>



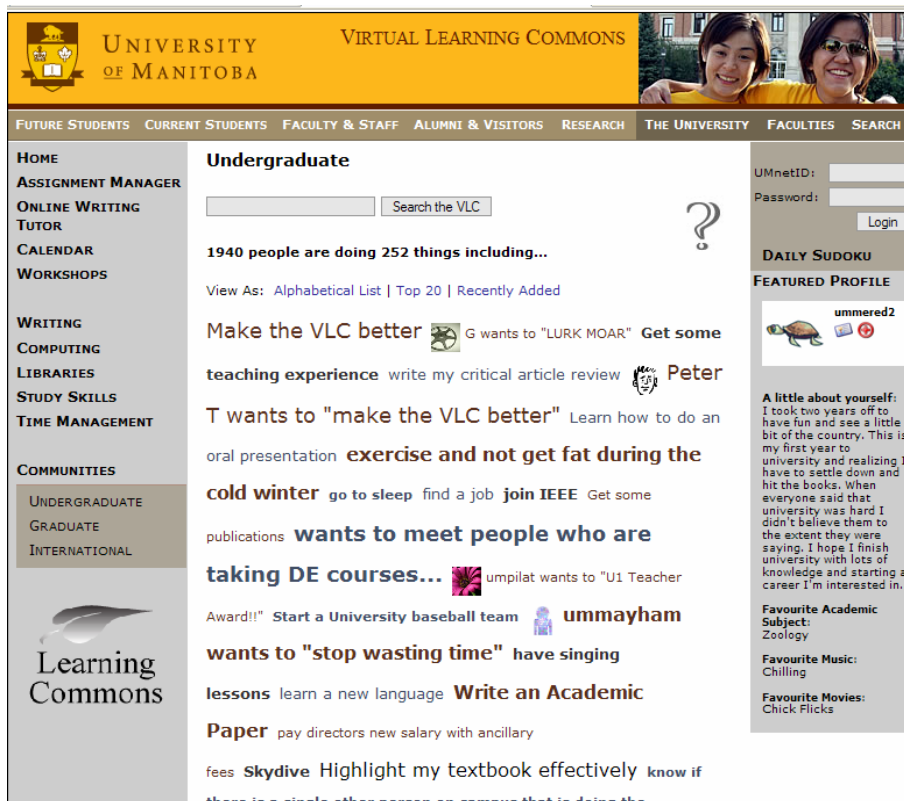


Figure 2: University of Manitoba's Virtual Learning Commons

While the pages of the site are public, a UM Net ID is required to contribute to the social space or to use online writing tutor or assignment manager functions. Once a learner has logged in, several specific functions can be explored:

#### *Completing a profile.*

As with any social networking site, the personal profile forms the basis for finding and interacting with others. Profile categories: avatar, favourite media, faculty, websites, books of interest, and other personal information.

#### *Contribute to the "tag cloud"*

The tag cloud is the public area "to do's" as specified by learners. A few to do's were initially seeded by the VLC to focus on academic activities, which are then connected to particular learning resources. Once logged in, anyone can contribute to the list of items by simply stating a subject of interest.

#### *Connect and Engage*

Site participants connect with each other based on shared interests or profiles. Discussion can occur around any "to do" item. Email and contact information is also available, if learners have completed profile information.

#### *Use the assignment manager*

The assignment manager is a tool that assists learners in completing numerous academic activities. Four categories – write a research paper, test preparation, due date reminder, and paper presentation – require provision of a start and end (if applicable) date. Once dates have been determined, a list of events, activities, and schedule is automatically generated. The research paper task, for example, links to an 11-step tutorial which guides learners through the

process of selecting a topic, formulating a thesis, writing, and so on. Learners new to higher education have found the tutorial and calendaring features valuable in formulating effective study habits.

#### *Online writing tutor*

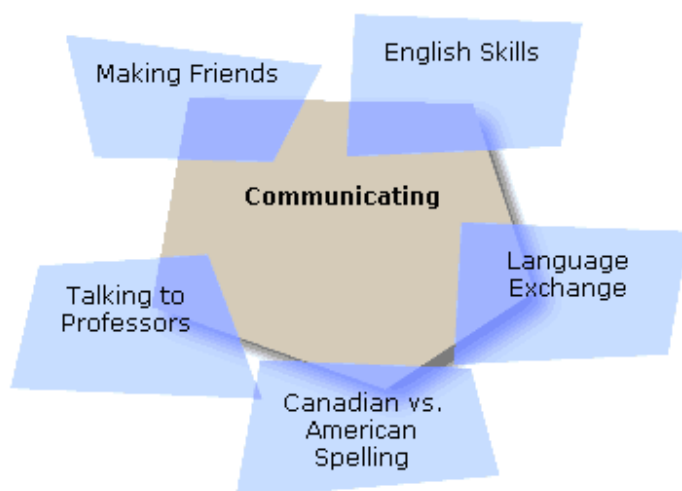
The online writing tutor assists learners in developing their writing skills. While not an editing service, direction is provided (within 48 hours of the paper being uploaded) in writing style, grammar, development of thesis, and general topic organization.

#### *Participate in workshops*

Workshops are available as additional academic support for learners. Topics such as taking notes, reading textbooks, developing a thesis, and study habits, provide specific support to improve learning skills and study habits.

#### *Use “as needed” resources*

Numerous learning activities are provided to learners on an “as needed” basis. These learning activities provide assistance in using libraries, searching for information, using the university’s computing services, and other academic support tools. These resources are provided as a concept map (see figure 3) instead of traditional click-through sequential access.



*Figure 3: Concept map of resource categories for learners.*

#### *Various communities*

The core tag cloud, as presented in Figure 1, is consistent for all site visitors. Various sub-communities have been established to serve the needs of specific learners. Figure 3 lists different communities – undergraduate, graduate, and international learners. Each sub-community provides learning resources targeted to community members. International learners will find information on housing, campus life, significant attractions in Winnipeg, and additional resources for living in Winnipeg. Graduate learners receive additional information on the experiences they’ll encounter through the graduate cycle and access to additional academic support services.

An additional faculty community is currently planned for September, 2007. This community will provide resources for faculty on improving teaching activities, using technology tools,

orientation for new faculty, and other services. The tag cloud for the faculty VLC will be distinct from the learner tag clouds.

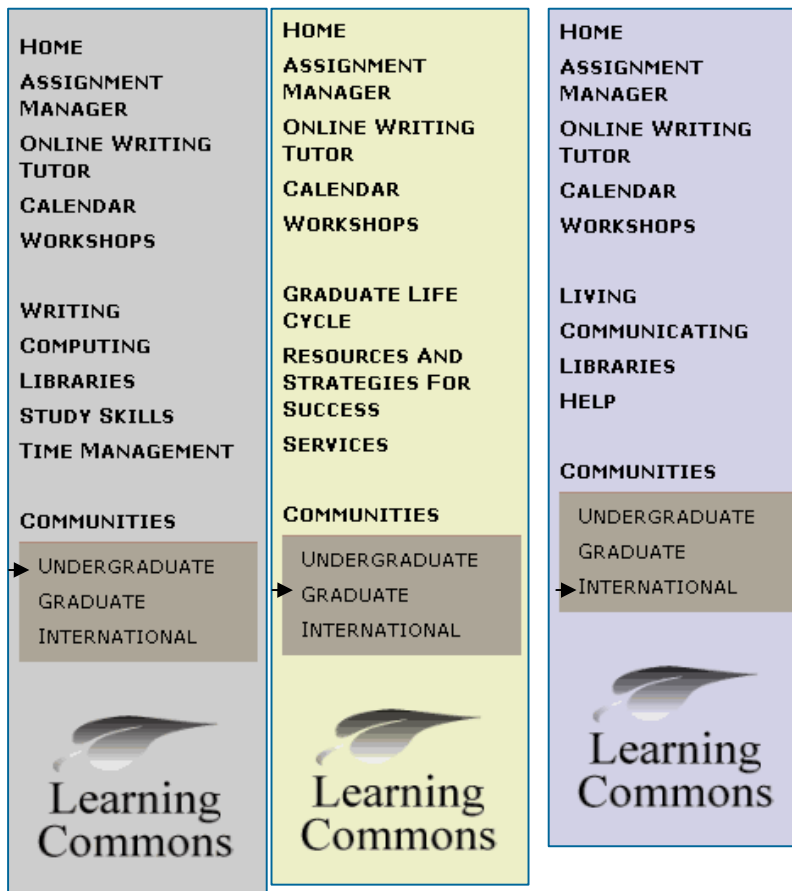


Figure 4: Learner communities: Undergraduate, Graduate, and International learners

**Fit with International Student needs:**

It was recognized early on by the VLC developers and UM librarians that the Libraries’ international student tutorial would be a good fit with the VLC’s Web 2.0 capabilities. The text-based tutorial content from the Libraries’ original project was combined with the VLC’s unique community structure and interactive functionality, to create an International Community. The aim of this community was to provide both the social connections and academic support that have been identified in the literature as being important to international students’ success. While the university already has many supports in place for international students, these supports are found mostly within the existing academic/administrative hierarchy. The VLC’s Web 2.0 technologies would allow international students to help each other directly. What could be more welcome than to connect in a foreign land with someone who shares your language, country or culture? Who better than international students to know about the issues that are important to other international students? Peer-to-peer support is a growing practice at the University of Manitoba, and the VLC would be able to offer this support online.

The Information Literacy Coordinator and the project librarians were responsible for designing, developing and organizing the informational content within the International Community section of the VLC, and the Learning Technologies Centre created the underlying software. The principles of the content design were:

1. to bring together “life” information useful to international students

- to provide information literacy/instructional support targeted to the international student community.

A project librarian was hired to design and develop the project, in accordance with the two main principles, and within the architecture of the VLC site. Before beginning to put content online, the project librarian did a considerable amount of literature searching and background research on international student needs, as well as on tutorial design. She also looked at some of the international student communities that exist in Yahoo! Groups and Facebook. She found that these sites already contain communities for University of Manitoba students who came from from Asia and Africa. The students use these communities to learn about everything from the admissions process to living in Canada, to academic help. While there was some concern that the VLC's International Community would duplicate the existing online communities, it was also felt that the VLC's approach was unique. By providing locally rich academic content along with social networking functions, it would create a familiar and comfortable learning environment, not just a space for social interaction.

The project librarian also worked closely with reference librarians, the members of the International Student tutorial's advisory committee, and with the various offices on campus that provide academic support for international students. As content developed, she also organized student focus groups to test the effectiveness of the VLC's material and navigation.

### The Finished Product

The International Community is accessible from the University of Manitoba's home page, under the Current Students information tab. Community content is organized into 4 categories: Living, Communicating, Libraries and Help. Each category is designed to appear as a concept map, as noted above, which can be navigated either by clicking on individual topics, or in a more traditionally sequential fashion.

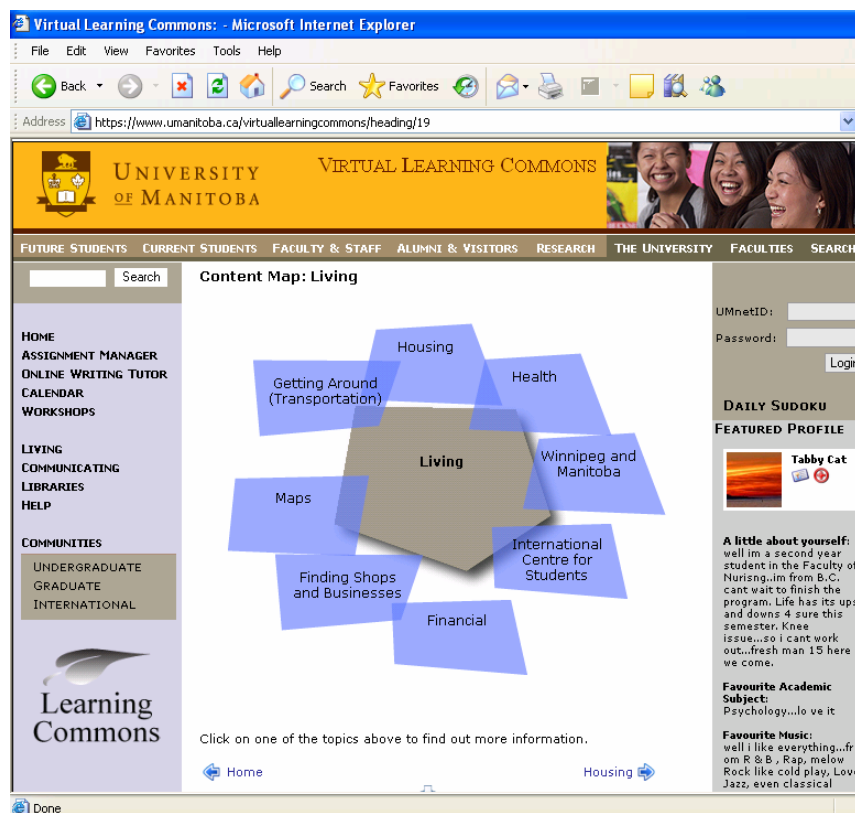


Figure 4: Concept map for the Living Cloud, International Community

The content within each topic appears as conventional web pages and is presented in two ways. The first is through original text written for the cloud and the second is by linking to, and consolidating existing information.

Original content was written using clear language conventions, and attention to limiting the use of jargon. Lots of white space was used, and the need to scroll down was minimized. Wherever possible, original UM photos or clipart graphics were used to enliven the content pages.

When links are used, they are drawn from the UM website, other internal University content, such as documents or flash tutorials, or the Internet. Links are identified with a logo to indicate to the student where the information originated.

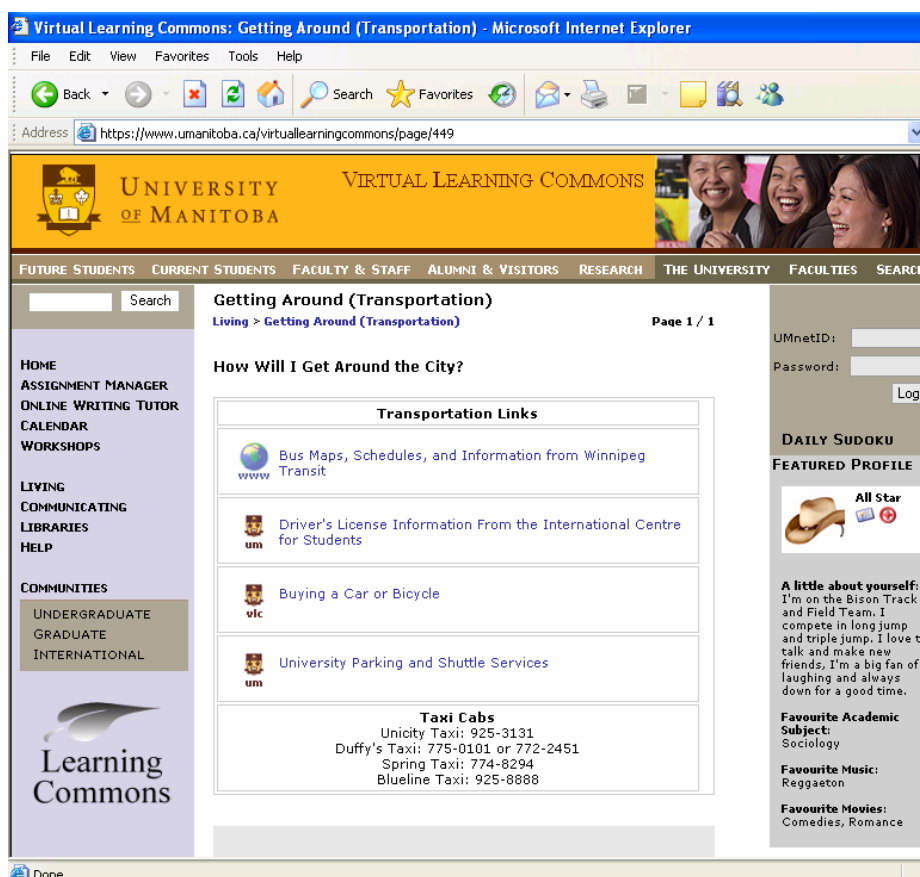


Figure 5: Content page from International Community, Communicating Cloud.

It may seem unusual that a site which started as an information literacy tutorial should devote 75% of its content to information on seemingly non-IL topics. However, as Baron and Strout-Dapaz pointed out in their study, information literacy standards can and must be adjusted to meet the needs of international students, and that "each skill libraries teach international students must account for the three major issues concerning language and communication, educational and cultural adjustments."<sup>31</sup>

<sup>31</sup> Baron and Strout-Drapaz, p. 321.

Information literacy skill development was not neglected, however. The largest category within the Community is the Libraries piece. During the content development phase, this category was called Researching, in keeping with the active-verb pattern of the other categories. However, during student focus group testing, the project librarian was surprised to learn that “Researching” was too vague a term for students, who felt that Libraries would be more descriptive.

The content of the Libraries category of the Community followed the plan of *eTools*, which in turn was based upon the structure of the ACRL Information Literacy Standards for Higher Education. The content was not merely copied from *eTools*, however. *eTools* is an extremely rich information literacy resource, but its sheer bulk makes it unwieldy to use. The use of the basic *eTools* design in the International Community offered the Libraries a chance to not only repurpose existing content, but also enabled the designer to produce a template for what redesigned version of *eTools* could look like.



The content of each topic within the Libraries concept map/category was organized in the same way as the other categories, but because of the level of detail required to work through some areas, an additional navigation element was added. It is a navigation bar which appears above the body of the content. The sections within the navigation bar change colour as the student navigates through the site, enabling them to see at a glance where they are in the tutorial. Each section of the navigation bar is clickable, which means that the student can move back and forth sequentially, or in a modular fashion.

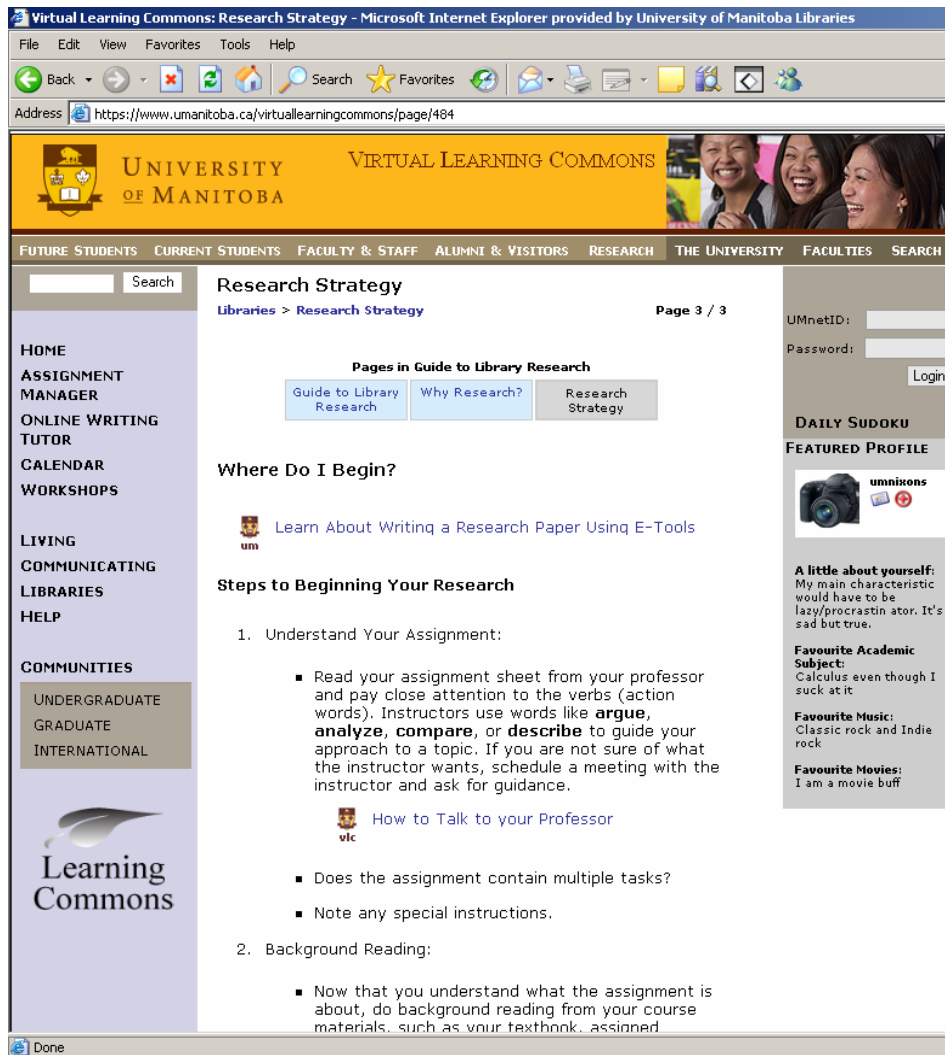


Figure 7: Content page from International community, Libraries Concept Map

## Project results

The International Community site went live in December 2006, and was used in the January orientation day hosted by the International Centre for Students. The site was well received at the orientation, but since then, its usage by international students has been unclear. Site statistics do not identify users, and due to the complexity of the VLC's structure, simple web clicks would not provide an accurate picture of usage. It is also unclear what the international student uptake has been for the social networking piece, since the topics of conversation in this part of the site are fairly generic. Project partners who sat on the advisory committee have not linked from their sites to the VLC, which also limits its exposure to international students.

These observations, while disappointing, may simply be growing pains, and offer opportunities for further development. In this sense, the International Community mirrors the experience of the VLC as a whole. In reviewing the impact that the VLC has had on the University of Manitoba's academic community as a whole, it is clear that while the experiment shows promise, it also requires more work.



### *Successes*

Initial response from participants has been mixed. As of April 12, 2007, over 1900 unique users have logged on to the site, with over 250 “to do’s” recorded. Activity was highest in September and October, with a slowdown as the school year progressed (this is not entirely unusual – Facebook, for example, records greatest number of new users over summer months as learners prepare for the upcoming school year<sup>32</sup>).

The Canadian Council of Learning suggests<sup>33</sup> that a learner’s “goals and commitments are also subsequently shaped by the kind of environment provided by the educational institution and by the activities in which the student engages once he or she arrives” (p.27). Vincent Tinto provides further impetus to the university’s responsibility to provide resources by linking student success to social and academic integration<sup>34</sup>. If a learner is socially connected to an institution and has access to required academic help and resources, attrition can be markedly reduced.

At this stage, it’s too early to determine how learner success was impacted through the VLC. Or, more specifically, how learner success was impacted through the a) provision of social spaces, b) academic support (tutorials, workshops), and c) meta-support through calendars and assignment management.

### *Challenges*

Numerous social software sites are available. Many students enter academic settings with an existing digital identity. MySpace, Facebook, Bebo, and others provide well-developed social spaces. Blogs, wikis, existing friends, resources, and established networks limit the willingness of students to shift to different tools. The challenge is similar to what many institutions have encountered when offering email services to learners. If learners have a developed digital identity, they will be more inclined to continue using existing email or social networking sites, rather than taking on additional tools.

Additional concerns arise with regard to liability issues that arise when bullying, copyright infringement or other difficult challenges arise as a result of the university-hosted space. The balance between freedom and control is not very clearly established for many educators. An open, unmoderated forum of discussion may present substantial concerns for inappropriate dialogue. Currently, informal observation of “to do’s” and learner discussion occurs through members of the VLC management committee.

University of Manitoba has licensed the Virtual Learning Commons under GNU General Public Licence, and is available<sup>35</sup> through SourceForge. The difficulties of expanding and evolving software may be minimized if more universities and colleges are involved in development. Several institutions are exploring the adoption of VLC, and has recorded over 300 downloads from SourceForge.

### *Opportunities*

Higher education faces obvious challenges in seeking to address growing concerns of relevance in an era marked by immediate access to information, and a filtering process not restricted to the privileged few. Established industries – newspapers, TV, Music, software – are reeling from a decade long onslaught driven by decentralized filtering, user generated content, open source and

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<sup>32</sup> <http://chimprawk.blogspot.com/2006/01/student-life-on-facebook.html>

<sup>33</sup> <http://www.ccl-cca.ca/NR/rdonlyres/3093CF3C-C93B-49CC-995D-A01A778E44D6/0/SoFreviewonPSE.pdf>

<sup>34</sup> Vincent Tinto, *Leaving college: Rethinking the causes and cure of student attrition*. 2d ed. Chicago: University of Chicago Press, 2003.

<sup>35</sup> <http://sourceforge.net/projects/vlc>



transparency of process and final product, and the reduced trust in single perspectives or views of knowledge.

While higher education does not exist to respond to changing whims and fads of potential students, awareness of external change pressures is important. Arguably, the core offering of a university is knowledge and dialogue around knowledge. As with a commercial enterprise, when the core product changes, the organization must change as well.

#### *Next Steps*

Development is ongoing with the VLC. Continued evolution of the architecture, functionality and services on the site include focus groups, student consultation, and more. At this stage, VLC is best viewed as an initial invitation to dialogue with learners. Duplicating the functions of Facebook or other well-funded software applications is not practical.

A substantial aspect of the VLC is the inclusion of academic support resources. Tutorials, workshops, assignment management, and writing assistance provide a vital service to learners. Initial use suggests learners value the assistance with scheduling as well as support resources. Attention must shift to providing learners with needed modes of interaction, while providing a solid grounding in academic activities.

These activities, and the first iteration of the VLC, are only the starting point for ongoing development. As learners interact with resources provided, suggest improvements and changes, the site will progressively evolve into a resource that becomes the infrastructure for the provision of resources in a timely (and contextually, or perhaps more accurately, device appropriate) manner. The opportunities are strong today for higher education to begin a series of progressive experiments to re-write their approach to teaching, learning, and research. Many of the tools currently intruding in classrooms, iPods, mobile phones, and games, may well prove to be the very source for reinvigorating an academic space too long complacent in its relationship to learners and society.

As for the International Community, it is also a starting point in an effort to meet the information needs of international students. Even in these early stages, however, the Community has made positive steps in applying the five goals for international student engagement:

- Use Information literacy standards as a design framework
- Collaborate among libraries and campus partners
- Design content specifically for international students
- Facilitate group study
- Go beyond library orientation

As we learn the lessons of the International Community and the VLC, the challenges offered by these five goals will be fully met, and the site can become “an amazing approach to the library tutorial, allowing for student choice, interaction (student to student and student to librarian), feedback, etc. It is much more likely to engage the Web2.0 generation and provide them real help that they seek out for themselves.”<sup>36</sup>

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<sup>36</sup> Bill Badke, email correspondence, Thu, 19 Apr 2007 15:40:09 -0700