Abstract
The growing importance given to integrated information literacy programmes in universities is correspondingly enhancing and changing the teaching role of the traditional academic reference librarian. How are librarians facing the challenge? This paper examines one of the schools surveyed by Kari Gulbraar in her paper “Developing for the New Academic Library Function: Knowledge and Skills Requirements among Library Personnel and Teaching Faculty”. Using a case study approach we consider the implications of integrating information literacy into a newly created academic programme. Through SWOT analysis, we identify the steps involved in the evolution from a traditional reference librarian role, in which the delivery of orientation and library tours is the norm, to that of a team player who partners with faculty in course and curriculum design. The librarian who undertakes this new role must be aware of the different and perhaps conflicting expectations of four distinct groups of stakeholders: students, faculty members, other librarians and library and faculty administrations. What new skills and competencies are needed to achieve this evolution? In what way must they be adapted to work with each of the stakeholder groups?

Introduction
Kari Gulbraar’s 2004 study, ‘Developing for the New Academic Library Function’ compares librarian and faculty attitudes towards information literacy in selected Norwegian and Canadian institutions of higher learning. When Gulbraar asked respondents “do/did you need new knowledge/skills for instruction?” one answer was: “Once again, you imply a need for change? When was teaching OLD?”

How do we react to this statement? While philosophically it might be said that teaching is ageless, most library literature of the last 5 years acknowledges that the changing information universe is also driving changes in library instruction. A new emphasis on enquiry-based, student centred learning has also had a significant impact on higher education, which has in turn influenced library instruction. It can be argued that there is in fact a big need for changes in teaching, as the role of librarians in the academy evolves from passively supporting its teaching functions to actively collaborating and participating in them.
Literature review

The debate over the role of the academic librarian is not new. In 1880, Harvard University’s librarian recommended that “the college librarian should become a teacher, not that mock substitute who is recited to; a teacher, not with a textbook, but with a world of books”.2

In 2000, the Association of College and Research Libraries (ACRL) issued its Information Literacy Standards for Higher Education, building upon a key report issued in 1989 by the American Library Association’s Presidential Committee on Information Literacy.3 The ACRL standards described information literacy (IL) as both a philosophy and a process, with clearly defined benchmarks and outcomes. The standards articulated what had always been done in bibliographic instruction (BI), but also pushed BI beyond the traditional ‘one-shot’ class by linking IL to overall academic success and lifelong learning.

The evolution of bibliographic instruction to information literacy coincided with, and was influenced by, a shift in thinking about university teaching. In 1998 the U.S. Boyer Commission on Educating Undergraduates in the Research University issued a study which recommended that universities should focus more on the teaching component of their missions and to follow the inquiry-based learning model. In particular they were urged to target undergraduates in new programme development.4 A follow-up report in 2001 tracked the implementation of these recommendations throughout U.S. universities.5

The first Boyer report grouped libraries with academic support services such as labs, while the second didn’t mention libraries at all. With their emphasis on improving the undergraduate experience through inquiry-based teaching, both reports intersected with and supported similar developments in information literacy. How did these changes impact librarians? Several books published from 1999 to 2001 reflected an increasing interest in the idea of librarians taking on more prominent teaching roles.

Rosemary Young and Stephana Harmony’s book, Working with Faculty to Design Undergraduate Information Literacy Programs: A How-to-do-it Manual for Librarians offered many practical ‘how to’ tips, but also introduced some concepts that went beyond the merely practical: developing learning outcomes, writing policy statements, and participating in curriculum design. The authors stated that:

we elected to use [the term] “information literacy” to emphasize the outcome of the instructional process – students who cannot only locate and retrieve information, but also evaluate and apply the use of this information appropriately. To accomplish this goal, it is necessary to create partnerships with the faculty in our academic institutions to design and implement successful programmes.6

Young and Harmony painted a picture of a collaborative, collegial relationship, with librarians and faculty working together at the curriculum design level. They also acknowledged that if a true partnership was not immediately feasible, it was still possible to “go beyond the five-minute phone call about the date, time and list of resources to cover”.6

Another book published in 1999 by the Association of College and Research Libraries was even more explicit about the teaching role of academic librarians. Librarians as Learners, Librarians as Teachers: the Diffusion of Internet Expertise in the Academic Library focused specifically on how librarians could use the Internet in instruction, and predicted that:

I forsee an opportunity for academic librarians to assume a stronger and probably more formal teaching role within the academy. What they teach now will be far beyond today’s hands-on, skill-building workshops... academic librarians will have an unprecedented opportunity to build themselves into the center of the educational processes in colleges and universities and function as true peers among faculty.7
Perhaps even more significantly, this book promoted the idea of learning competencies for both students and librarians. The suggested professional competencies were:

- assessment and inquiry competencies,
- instructional competencies,
- technology competencies,
- scholarly competencies,
- social competencies.

ACRL also discussed the role of information literacy coordinators. As managers, they were urged to work with their colleagues in a coaching, rather than hierarchical style. Coordinators were also directed to collaborate with other stakeholders in the academy in order to achieve programmatic success. If followed, these recommendations would move information literacy into the political arena of the university, something rarely seen with bibliographic instruction, which was usually firmly rooted within the walls of the library.

Three collections of essays published in 2000 continued the trend of looking at instruction from a pedagogical and theoretical perspective rather than a purely practical one. *Information Literacy Around the World* contained several chapters which showcased information literacy programmes at various institutions, but in addition to the descriptions there were also thoughtful observations on wider issues. In the book’s foreword, Patricia Senn Breivik identified them as:

- the need for research and practice to work hand-in-hand (a challenge that has, largely, not been met in education);
- the need for benchmarking people’s level of information literacy and for bringing about authentic assessment;
- the varying manifestations of information literacy in the workplace and in professional continuing education;
- the need to understand and address varying learner backgrounds; and
- the need to reassess desired learning outcomes... (are we seeking to have young people be successful students or successful lifelong learners?) and to ensure that we adjust learning experiences accordingly.

The emerging politics of information literacy was also repeatedly referred to throughout the collection. Penny Moore’s essay noted that “policy can not mandate what matters” and that in order for information literacy programmes to succeed, professional development efforts need to support the creation of conditions that establish and then maintain implementation of new ways of working... It follows that if collaboration between educators and librarians is a stated goal, the programme needs to include tasks that encourage joint planning, implementation and evaluation.

In addition to promoting and encouraging collegiality, the new ways should also include a shift in focus “from teaching to learning”.

Echoing the themes that were explored in *Information Literacy Around the World*, *Future Teaching Roles for Academic Librarians* considered:

- that the new paradigm for higher education reflects a need to focus on learning, not teaching,
- that the new learning-centered focus of higher education prizes the importance of learning by doing, and
- that in this new environment, librarians have new opportunities to play a forceful, dynamic role in collaboratively designing and developing the contexts for learning strategies.
This book also explored the newly-emerging idea of the learning library, which “has student learning at its heart and infuses information literacy into the entire curriculum in ways that are meaningful to the students in the long term.” The larger political picture was once again explored, with Kimberley Donnelly observing that:

In order to garner support, material about information literacy initiatives has to be delivered to administrators and faculty through channels they commonly use. This kind of communication may be the key to establishing respect and understanding throughout the campus community. Further, proponents of information literacy requirements should base their arguments both on the colleges and departments’ mission and goals and accreditation standards.

Finally, *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe* explored the different faces of faculty–librarian collaboration. The opening essay by Dick Raspa and Dane Ward noted that:

we have reached a point at which neither librarians nor instructional faculty can adequately teach the research process in isolation from each other... it takes both classroom instructors and librarians to teach students to develop adequate research skills.

The book went on to explore several examples of successful collaboration and concluded by asking: how do we create a climate where librarians are valued as teachers, and how do librarians value themselves as teachers?

the answer is always the same: by seeking collaborative opportunities with faculty all the time... we librarians must define our place as teachers in the educational mission of our institutions... We begin this process by building coalitions within the library itself in support of the teaching role of librarians. After the internal commitment... is established, we need to market our instructional role to the campus. This requires political skills, including ‘... negotiation, persuasion, compromise and strategizing in order to achieve certain objectives’.

It appears that by 2000, information literacy was starting to take on the characteristics of a discipline, rather than as just another kind of instructional technique. The themes commonly identified in the books referred to above included:

- achieving collaborative partnerships with faculty,
- contributing to student learning,
- seeking administrative support,
- playing institutional politics,
- learning how to be a better teacher by learning.

These themes have continued to be the focus of ongoing discussions in many papers and conference presentations since 2000. A comprehensive overview of developments in IL is provided in Edward Owusu-Ansah’s ‘Information Literacy and Higher Education: Placing the Academic Library in the Center of a Comprehensive Solution’, while Clara Fowler and Scott Walter’s ‘Instructional Leadership: New Responsibilities for a New Reality’ looks at the organizational side of IL.

**The role of technology**

While the late 1990’s and early years of the 21st century saw major developments in both educational theory and information literacy, even more significant was the impact of information technologies. Evan Farber noted that information technology helped to move the debate about librarians’ roles in a new direction:
In the last few years what has helped to blunt that resistance [of faculty to bibliographic instruction] and at the same time suggested a more prominent role for librarians, as been the impact of electronic information.\textsuperscript{16}

Raspa and Ward observed that:

\begin{itemize}
  \item Globalization, information, and computer technology have inexorably altered the ways we read, research, write and learn.... We know today that standard practices from the past do not suffice. They do not help much with the complexities of contemporary life, nor with the realities of information.... understanding requires a number of competencies, including the power to analyze, synthesize, and present information in multiple contexts for very different audiences.\textsuperscript{17}
\end{itemize}

When Farber’s paper was published in 1999, the Google search engine had just come out of its beta testing stage and was starting to be recognized on many of the year’s “top ten” technology lists.\textsuperscript{18}

The same year that Raspa and Ward wrote their editorial comments on the changing nature of information, Outsell, a market research company specializing in analysis of information technologies, produced a document titled \textit{Information about Information Briefing: Today’s Students, Tomorrow’s FGUs} (Functional Group of Users). This report looked at student information use at 10 American universities and the consequences for academic libraries. Outsell observed that “successful links between teaching and library resources depend entirely on the personal relationships between faculty and librarians, and a critical mass is growing”.\textsuperscript{19}

In 2001 the first of several \textit{Pew Internet and American Life} studies dealing with the Internet’s effects on education was released, and it made clear the extent to which the “information superhighway” was going to have a huge impact on how students learn.\textsuperscript{20}

These studies and many others that followed verified what librarians and faculty were already experiencing: a fundamental shift in the way students used information resources to do research. Concern about the “Googlization” of research was shared by faculty and librarians alike and offered an even more compelling reason for both groups to work together. Librarians were finally being recognized as having an advantage in the new information universe due to their long experience in the organization and classification of electronic information systems, and because of their expertise in using and teaching databases. This renewed faculty-librarian alliance was explored in Scott Carlson’s ‘New Allies in the Fight against Research by Googling’.\textsuperscript{21} Carlson noted that the context of the partnership might be new, but that:

the instructional goals remain the same... the learning objectives need to be recalibrated for electronic information environments. ... The inconsistencies of student background have created the need for librarians to design instruction programmes that consider a variety of experiences. The systematic approach once used in traditional bibliographic instruction programmes can no longer be effective.\textsuperscript{22}

As academics were beginning to use web-based content in their teaching, so were librarians beginning to include web evaluation in their instruction classes. In this context, the methodology suggested by the information literacy approach to instruction became very attractive and was seen as being a good fit with the new realities of learning. In the expanded information universe, the ability to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information”\textsuperscript{23} was acknowledged as being crucial to academic success. The door to true collaboration, as advocated by many librarians and researchers, was opening wider.
The Canadian picture

Most of the research and activity in information literacy in the last decade has been done in the United States and Australia. In Canada, as in Europe, the information literacy picture and the role of librarians as teachers are less well developed. As documented by Whitehead & Quinlan and Julien & Boon, information literacy in Canada, particularly in higher education, remains largely rooted in the bibliographic instruction tradition. Several universities, such as the University of Alberta and the University of Winnipeg are moving to a newer IL-based models, but these efforts represent the work of individual institutions, and often individual librarians.

In Canada, higher education is a provincial responsibility, so it requires the oversight of a national professional body like ACRL or CAUL to bring the Canadian information literacy agenda to a larger stage. There is recognition that a more coordinated approach is needed, and several bodies such as the Canadian Library Association, The Partnership, and the Manitoba Library Association have projects underway to advance the cause of information literacy for their constituencies.

Locally, the University of Manitoba's information literacy programme is relatively new, having officially begun in 2001 with the hiring of a full-time information literacy coordinator. The programme rests firmly on a longstanding foundation of bibliographic instruction, delivered by subject librarians with very close ties to their faculties.

University of Manitoba (UM) librarians Ada Ducas and Nicole Michaud-Oystryk's 2003 paper 'Toward a New Enterprise: Capitalizing on the Faculty-Librarian Partnership' described the instructional picture in their larger study of faculty-librarian relationships at UM. They noted that while faculty felt that librarians contributed very positively to the student learning experience when they taught instructional sessions, very few faculty actually had librarians participate in their classes. The follow-up paper, published in 2004, found that while "librarians wish to be part of the team in the educational process... faculty seem to want librarians to remain within traditional bounds".

These findings were verified by Gulbraar's 2004 study, which found that in the Canadian universities she surveyed (including UM), teaching faculty were still unsure about the concept of information literacy, if it fit into their curriculum and what role (if any) the librarian should have in its delivery.

Key issues from the literature review

How can these studies on the changing nature of library instruction in academia be applied to the creation of an information literacy programme and the development of librarians as teachers? An analysis of the literature points to certain key issues that characterize the change from a traditional BI programme to an effective IL programme.

An IL programme should:

- follow an inquiry-based, student centered learning mode,
- have the immediate goal of students achieving academic success, with the long term objective of providing lifelong learning,
- address needs of varying learner backgrounds as well as learning capacities,
- include learning objectives that recognize the learners' varying experience with electronic environment.

The teaching librarian should:

- be an active collaborator and participant, and work as a partner with the faculty at the curriculum design level,
- take a proactive and dynamic role in the teaching process by seeking collaborative opportunities with faculty for designing and developing the
contexts for learning strategies, resulting in a stronger and more formal teaching role.

The IL Coordinator should:

- work with library colleagues in a coaching role,
- seek administrative support for the teaching role of the librarians by building coalitions within the library, and marketing library’s instructional role to the campus,
- collaborate with stakeholders in the academy to achieve success in implementing IL across the campus.

The case study

The findings in the literature review have led us to consider the implications of such a programme as applied to our own institution. Using the newly-established Textiles Sciences Program at the University of Manitoba, as an example, we will look at the factors involved in designing and implementing an integrated IL programme, and develop a model that can be translated to other areas.

To begin, we have to answer the following questions about IL generally in our institution:

- At a practical level, what is the status quo of the IL programme?
- The stakeholders in an integrated IL programme fall into three categories:
  1. administrators of (a) the library; (b) the faculty; and (c) the University;
  2. the teaching personnel: (a) the librarians and (b) the professors;
  3. the students.
What are the strengths (S) and weaknesses (W) as presented by each group of the stakeholders with regard to the status quo? What are the opportunities (O) and threats (T) that we may expect when we plan to implement an integrated programme of IL?
- What new skills and competencies are needed for the librarians to undertake this evolution in their teaching role?
- Based on the SWOT analysis, can a process be developed, and a model created, for establishing an integrated IL programme, and for preparing for the changing role of an academic librarian?

The status quo - University of Manitoba:

The UM is one of Canada’s largest and oldest research universities. Its academic and professional schools achieved a total enrolment 27,631 in 2004. Librarians at UM have faculty status and participate as peers with the teaching faculty in Senate, on committees and in the Faculty Association.

As previously noted, the University of Manitoba Libraries (UML) has a strong tradition of instruction, but teaching is one area where true equity with faculty has not been achieved. In spite of a desire to be more actively involved in curriculum planning and design, librarians in most units, with some exceptions, continue to teach using the traditional bibliographic instruction model. As noted by Ducas and Oystryk, there appears to be a disconnect between faculty expectations and librarian aspirations.

With the hiring of a fulltime Information Literacy Coordinator in 2001, the Libraries signaled that a shift would occur in how instruction would be done. This shift was soon felt with the launch of ‘eTools for Success’, a programme of instruction based upon the ACRL Information Literacy Standards for Higher Education. Developed for delivery to first year
students, the 4 eTools modules were designed in consultation with the course director, and took up nearly 1/3 of the 13 week course. Attendance was mandatory, students were tested and the results were worth 5% of the course mark. The experiment proved to be a success, and the potential of eTools as a model was quickly seen.

**The status quo - textiles**

Library instruction for the 2nd and 3rd year textiles sciences students was given jointly by librarians in the Albert Cohen Management Library (supporting management, business, and finance) and the Elizabeth Dafoe Library (supporting arts and humanities). Through many years of working with the faculty in the textiles sciences and human ecology programs, a strong rapport had developed, but instruction was still handled the traditional way.

The successful implementation of the new eTools instructional model coincided with a programme review for the Textiles Sciences program. The new programme was to have an increased science and business emphasis, moving away from a more traditional fashion industry focus. Recognizing an opportunity to have eTools-like instruction included in the new programme, the Management librarian contacted the course director with a proposal to include information literacy in the new programme design.

In order to initiate this process two factors came into play. Firstly, and most importantly, the Management librarian took a proactive role and recognized an opportunity to create a new model of library instruction for her faculty. With the support of her library unit head, she approached the department head with a proposal to incorporate IL into the new programme and had several discussions that examined the feasibility of the idea. A firm grounding in IL concepts and the practical example of the eTools model enabled the librarian to present a convincing case, and the idea was approved by the department head and the Dean.

Secondly, the process called for the Information Literacy Coordinator to:

- get administrative support from the Director and the unit heads of the Library for implementing IL;
- discuss the plan with the Department Head of the Textiles Program and the Dean of Human Ecology and get their support;
- involve related subject librarians to prepare the lesson plans and, where needed, provide professional development training for them to team with professors to implement an integrated IL programme;
- get support and acceptance for the IL programme from the Textiles faculty;
- review the IL programme with the library’s academic and support staff who may be needed to provide help;
- evaluate systematically the IL programme and provide workshops as well as one-on-one couching and mentoring for those librarians who need help.

**SWOT analysis**

While success was achieved in convincing faculty to integrate IL concepts and outcomes into the new programme, it was felt it would be useful to review the status quo using a SWOT analysis to help us get a clearer picture of what would required for further programme development.

**Strengths in the current scenario:**

- Libraries administration is knowledgeable about IL and its increasing importance in universities, and is supportive of the idea of integrated IL programmes.
• A full-time Coordinator position with the mandate and authority to implement IL in the university has been established.
• An Information Literacy Committee, with representatives from unit libraries and campus, serves as a collaborative body to work with the IL Coordinator. Taskforces have been created in the committee to identify desired learning outcomes for IL programmes; to develop evaluative methods and instruments; and to plan professional development strategies.
• An IL administrative framework has been created, with terms of reference and a strategic plan that supports ACRL standards.
• In collaboration with faculty and librarians, the Coordinator has successfully implemented an IL programme with University I classes, where the Coordinator and a number of librarians teach, and a test is administered to evaluate the learning outcomes.
• Subject librarians have already established a good working relationship and rapport with Textiles faculty through their existing orientation and bibliographic classes.
• Librarians with subject expertise and considerable experience of providing help with students’ research needs are available.
• The Head of the newly established Textiles Sciences Department is very enthusiastic and supportive of the concept of integrated IL programme and is prepared to involve departmental faculty members to collaborate with the librarians in preparing integrated lesson plans.
• The Dean and department heads of Human Ecology faculty enthusiastically received the presentation on the proposed integrated IL programme and have committed their full support.
• Joining with Kent State University, the Coordinator has just initiated the SAILS (Standardized Assessment of Information Literacy Skills) survey that enables the library to administer a random test to the students to assess their IL competency levels and expertise, allowing us to evaluate the current scenario of IL at the university.

Weaknesses in the current scenario
• Uncertainty prevails about how some librarians and faculty members will react to an integrated IL programme that calls for different working relationships and different schedules.
• Some are satisfied with the traditional perception of library providing support or service to faculty and are slow to accept the changed view of librarians and faculty working as collaborators.
• Sometimes more importance is given to bureaucratic structure and line authority, thereby losing flexibility.
• Some place greater emphasis on building collection strength, and do not recognize IL as a viable activity for librarians.
• Not enough money and human resources are allocated to enable a full-fledged IL programme across the campus, and there is no assurance of future allocations.
Opportunities in establishing IL

• Allows us to implement a pilot programme, and thereby create a process to establish an IL programme across the campus.
• Helps students to achieve both short term and long term objectives of becoming information literate.
• Frees up time for faculty to concentrate on subject matters to teach;
• Provides professional development for librarians.
• Enables faculty to recognize librarians as their professional colleagues.

Threats in establishing IL:

• Faculty members may question the effectiveness of librarians as teachers, and their ability to prepare lesson plans with learning outcomes.
• It may be difficult for librarians to spare the time needed to work with the faculty in preparing lesson plans and assignments.
• Handouts needed may prove to be costly calling for allocation of money that is not budgeted for.
• There may not be adequate and on going administrative support to compensate for the time, money and support personnel needed to plan and execute IL programme properly.

Case study analysis:

In order for the new programme to succeed and desired IL outcomes to be achieved, the development process calls for enhancement of strengths and opportunities, while at the same time taking steps to minimize the weaknesses and threats. The following pathway may lead to achieve that desired effect efficiently and effectively:

• continue the existing process of seeking administrative support through consultations beforehand,
• continue to strengthen IL Committee through regular meetings to ensure the members’ energy and enthusiasm are channeled towards continued development of an effective IL programme,
• evaluate and monitor the effectiveness of IL programme for University I classes to benefit IL programme for Textiles,
• utilize the existing rapport of subject librarians with the faculty in advancing the cause of an integrated IL programme,
• lobby with library administration to provide adequate budget as well as release time for librarians to work on the IL programme.

The model

The model of IL programme implementation that we have developed from our case study is a continuum that involves all stakeholders in a continuously expanding manner, starting with the library administration, and then to faculty administration, librarians and finally students, as seen in the figure below. This model calls for the librarian and coordinator to deal with one primary stakeholder at any given time, while at the same time having ready access to go back to any other stakeholder in the continuous process. With such a model in place, a process is established for providing a dynamic integrated IL programme across the campus.
New skills and competencies for librarians

Ultimately, however, the success of any integrated IL programme depends on the readiness with which the librarians are prepared to work with their changing role “from passively supporting their teaching functions to actively collaborating and participating in them”.

In order to prepare librarians to take on the proactive, collaborative, and pedagogical roles that we envision, a programme of professional development must be established. UML administration has already committed to annually funding at least one librarian’s attendance at the ACRL Institute for Information Literacy Immersion School, but work also needs to proceed on an ongoing basis. Workshops, informal discussions, evaluative microteaching sessions, and online learning opportunities on teaching skills should be organized, to ensure that librarians are proficient in the following:

- working collaboratively with faculty in designing IL integrated curriculum in their subject areas,
- preparing lesson plans with clearly identified learning outcomes;
- identifying the building blocks in the topics to be taught in an integrated IL programme,
- developing expertise in using technological aids such as PowerPoint for an effective presentation,
- scheduling appropriate assignments and evaluative instruments to ensure that the learning objectives are being met,
- developing presentation skills to ensure holding students’ sustained interest in what is being taught,
- being vigilant to the needs of learners' different learning styles and capabilities, and varying the teaching methods to suit all learners,
- incorporating both web-based as well as traditional resources to keep the subject matter current,
- being proactive in identifying subject areas that call for IL programme and initiate discussion with faculty to set up collaborative work to provide integrated IL programme.
Conclusion
Lizbeth Wilson’s ‘What a Difference a Decade Makes: Transformation in Academic Library Instruction’ identifies the key trends that changed the way librarians teach:

- technology
- information literacy
- collaborations
- research
- user-centeredness
- leadership
- standards and guidelines

Unlike Gulbraar’s respondent, who didn’t see the need for change, both a review of the literature and a case study analysis have shown that librarians do have to change their approach to teaching, and must take on more proactive roles within the university in order to move change forward. Support can be provided two ways: by creating a programme of integrated information literacy instruction, and by developing and maintaining a programme of professional development for librarians who teach. In this way, librarians can move beyond their traditional roles as helpmeets to faculty, and truly take their place at the heart of the academy.

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