Paper

Collaboration in an Information Commons: key elements for successful support of e-literacy.

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Abstract

Information Commons service models generally include some element(s) of collaboration, whether it is for the delivery of technical support, e-literacy instruction, face to face and virtual services, integrated learning support or other innovative service delivery programs designed to support and enhance learning. Establishing a successful Information Commons facility requires strategic thinking and positioning as well as tactical or short-term planning. Strategic thinking and planning are essential to ensure that the facility and associated services are strongly aligned with the institutional mission, strategy and values. It facilitates the development of collaborative ventures as it presents a campus-wide rather than a unit-centric view. Tactical planning, on the other hand, will develop the detailed operational plans and procedures required for a smooth running service.
This article will look at different Information Commons models, outline the strategic and operational processes required when establishing a successful collaborative information commons environment and present case studies of two Information Commons with different service models and collaborative support for e-literacy.

Keywords: Information Commons, IT literacy, Information Literacy, Collaboration

1. Introduction

Over the past ten to fifteen years, there has been much discussion in academic circles on the death of the library, the rebirth of the library and latterly the rejuvenation of the library as a centre for learning on campus. Many academic libraries have pondered redesign, rejuvenation, or revolution in the light of decreasing face-to-face use, technological ascendance and the rise of the independent learner. In some cases, libraries have become resigned to their fate, but in many others a new service model has taken root. This new service model is the Information Commons. What started out as a computer lab within a library has developed into an integrated service facility supported by the library and its collaborators. Its primary focus is support for learning. This article will provide a short history of the development of the information commons as a collaborative service. There are a variety of service models which support e-literacy and they vary according to the vision and mission of the collaborators. Key questions to consider in the development of partnerships and collaborations to support learning are highlighted. And, finally, there are case studies of two different models of collaborative Information Commons, each successfully supporting learning and literacy.

2. Visionaries, librarians and techies

The expanding digital environment and the ever-changing learning environment in the early 1990's afforded leaders in information technology and libraries an ideal opportunity for change. There were many early initiatives which heeded Philip Tompkins' (1990) call for the integration of instructional, information and communication resources within new spaces with new designs. One early initiative was the Estrella Mountain Community College Information Commons, an integrated service space for students with creative learning spaces for students (http://www.estrellamountain.edu/ctl/ls_index.asp). At about the same time, the University of Iowa opened the Information Arcade (http://www.lib.uiowa.edu/arcade/) as a space to allow for applying electronic resources to teaching, research and independent learning. Its success was its unique collaboration among librarians, faculty and computing professionals and is illustrative of the beginning of the paradigm shift to the integrated digital world in libraries. The Information Commons has become a service model that many libraries considered, adopted and then adapted to their own needs.

3. eLiteracy – a learning outcome

In order to learn and succeed, literacy in the integrated digital world is a required competency for students. While most students are not intimidated by technology, studies have shown that they do not necessarily come fully formed to the academy with the required competencies needed to use the technology, find and evaluate information and create new information. (Oblinger and Hawkins, 2006) For the purposes of this paper the term e-literacy will be used to encompass the combined literacy skills which relate to IT literacy (technology), as well as information literacy skills and the concomitant creation of new information. It is possible to acquire this integrated competency in the Information Commons. It is our purpose in this paper to highlight the ways in which an Information Commons supports learning the skills to become competent in the digital world

4. Evolution of the service model

Those institutions, which have taken up the challenge to create a new learning space in the library, have created unique service centres. While there is not one model of service that is necessarily better than another, what is clear is that those that have been successful have brought collaborators together for the benefit of the learner. The Information Commons models of service can range from a self-service student computer lab to a high-tech learning environment for both students and faculty with access to expert support on site. Frequently many service units collaborate to provide the learning support. The most prevalent collaboration is between libraries and information technology units.

Beatty and White (2005) identified three basic categories of Information Commons. Successful service models transform over time and in each of the examples below service configurations have done exactly that. The Computer Lab is the basic service model. The lab may or may not be part of the library. There may or may not be access to experts for learning support. The technology may range from basic to advanced. One example of this model is the ScotiaBank Information Commons at the University of Toronto (http://www.utoronto.ca/ic/). This facility is within the library building, but separate from the library. It was initially conceived as a facility where students could have access to high technology, with assistance in learning the technology. Reference assistance and information literacy instruction are centred in the library. This is a technology based service model.

The second category of Information Commons is the integrated service model. The library may offer all services or it may collaborate with other units. In the library-only model reference and technical assistance are available from experts on site. Size of the facility and the nature of the service program vary. What instruction there is, is information literacy focussed. An example of this model is the Information Commons at the University of Southern California Leavey Library (http://www.usc.edu/libraries/locations/leavey/ic/). The library itself is geared to undergraduate use. The Information Commons takes up two floors of the library. In the other subset of the integrated facility, the library joins with other collaborator(s) to provide service within one facility. These are likely to be collaborators which will take the user beyond the digital environment to the learning environment. Instruction and learning support can take on many facets but the basic instruction tends to include information literacy and technical literacy. Choice of partners is dependent on the nature of the service desired. The nature of the relationship can range from co-location to full integration and collaboration. The University of North Carolina, Charlotte, (http://library.uncc.edu/infocommons/) and the University of Calgary are two different examples of this model. The first example has services co-located in the Commons, with a variety of service desks, while the second example has integrated services offered from one desk. Both are successful service delivery models.

The final and latest service model is the Information Commons Building. This model can include services which are totally library based or it can be a new type of facility with services for students and faculty. The types of partnerships and collaborations are only limited by the imagination of the leaders and the opportunities taken by the service providers. One may see libraries co-located with educational services, student services, media centres, language centres, museums, tutoring centres and more. Ideally and more frequently there will be new services developed which have not existed prior to the inception of the Information Commons. The University of Arizona (http://www.library.arizona.edu/ic/), the University of Auckland and the future University of Calgary Campus Calgary Digital Library are all uniquely different examples of what can be accomplished within the Information Commons Building service model.

5. What's next in the evolution of the Information Commons service model?

Beagle (2004) described a transformational change in Information Commons leading to what he and others have named the learning commons. Beagle suggests that the library will extend beyond its boundaries and there will be an integration of services and functions such that faculty and students will have an enriched suite of services and toolsets with which to work together in a collaborative setting. Is this collaborative support for e-literacy at its highest level or will there be future transformations? With an integrated collaborative space and a suite of services and learning initiatives supported by a core of experts, will there be a new role for the library as a learning centred service? And what will that look like? Time will tell. The key is to start to think cross-boundaries within the academy and to seek out like-minded leaders.

6. Why offer integrated services in the Information Commons?

Integrated learning spaces and services offer advantages to the user, the library, the collaborators and the academy. From the users' point of view, one stop service is efficient and effective. Help is available when and where users need it from experts in many areas of learning support. A collaborative learning environment means that the user has the opportunity to come together with others to create new knowledge. And the opportunities to learn are endless.

Services and staff flourish in an Information Commons and both are transformed. The academy stops talking about the death of the library and starts talking about the opportunities of collaborating with the library. The library comes to be seen as a campus centre - a social learning centre. By libraries taking on a key organizational role through offering and developing instruction and instructional support, they become pivotal to the mission of the academy: creating learning outcomes. The library therefore becomes more politically significant and strategically important within the academy.

The reasons to collaborate are more compelling than the reasons not to. Firstly, the Information Commons is visibly successful, students flock to the facility to use the technology and take advantage of the services. Power and influence come from visible success. It makes sense to align with a success, keeping in mind that the more closely units work together the more likely they are to succeed. Collaborators can be those who offer face-to-face service and/or virtual services. The opportunities are only limited by imagination and resources. There is no better platform from which to create and launch new services which meet the learner's needs.

Lastly, the academy benefits when visible successes based on collaborations result in high approval from students. Strategic success is seen to be good. Academies which successfully transform their services and their student learning environment are seen to be leaders in change, leaders in the digital environment and effective and efficient in the use of their resources. This high profile success attracts more support and can lead to more creative and innovative projects.

The road to a successful Information Commons is not without its bumps and detours. And the decisions that are made along the way will determine the nature of the service, the nature of the collaboration and in the end the nature of the learning outcomes. Not all collaborations are successful. A good collaboration requires more than good will, it requires a sound knowledge of the user, the academy and the culture. Spend time thinking strategically and planning tactically. Bring your collaborators together early and often. The results will be unique to the institution.

7. The Information Commons as a learning environment

The evolution of the Information Commons can be attributed to several change agents or catalysts converging over the past few decades. Two of the most significant are the advances in information technology and the changing student profile, the latter in part a result of the first. The Net Generation or 'digital natives' do not know a world without technology (Prensky, 2001). The Net Generation is often described as always connected, digitally literate, able to multitask, comfortable in a visual-rich environment, favouring teamwork and experimental learning, able to move seamlessly between the physical and virtual environments, and expecting excellent and adaptable services (Oblinger and Oblinger, 2005). Universities and particularly university libraries had to reconsider the learning and teaching support they provide.

Technology has the potential to create rich learning environments that transcend geographical and physical boundaries. It allows more effective implementation of student-centred learning models such as problem-based learning, evidence-based learning, reflective study and collaborative learning, which in turn create a demand for flexible services and support models and learning spaces.

What pedagogical role does the Information Commons play? The Information Commons it often defined as a collaborative environment ideal for learner-centred pedagogies (Lippincott, 2006; Mountifield, 2004b). Socio-cultural learning recognizes the importance of social relations, community and culture in learning. Learning takes place within a social context while learners engage with mentors, peers, objects and events (Vygotsky, 1978). Wang (2006) points out that collaborative learning allows learners to interact and engage in joint tasks and problem-solving, and that it enhances critical, creative, independent and reflective thinking skills.

The Information Commons is a rich learning environment for the Net Generation student; it facilitates collaborative and socio-cultural learning underpinned by a modern IT infrastructure and appropriate learning space designs and tailored learning support.

8. Elements of an Information Commons

The Information Commons environment is constructed by the interplay of several elements. The elements deployed create a specific Information Commons environment that will be determined by the particular model selected, as well as the associated goals and desired outcomes. Various elements and functions interact to create a holistic student-centred environment. Each should be considered carefully when planning an Information Commons.

The following set of questions could serve as starting point for consideration and discussion.

Physical:

- What is the role of the Information Commons within the wider campus, is it a connector, is it at the physical and social centre of the campus? Location is critical.
- Who is the building suited for? Will it offer a student focused environment and feel like home with the best views and most comfortable spaces and furniture for its users?
- Does it make an architectural statement that reflects the changes in higher education as well as the vision of the institution?

- Does it allow for future changes in technology with simple forms and large open spaces? Information Commons buildings are highly services spaces and future changes could potentially be costly.
- Will it act as a social and learning hub? Does it offer a variety spaces with flexible furniture design and arrangement? Does it combine facilities and services and mirror the outside world? (Couchman, 2004 ; Couchman, 2005 ; Mountifield, 2005)

Virtual:

- Does the IT environment offer the latest hardware, multimedia, high speed conventional and wireless networks, personal file storage, systems security and use of small mobile personal devices?
- What software environment will be offered and what are the associated financial and licensing implications? Consider the management and future development.
- What is the relationship with other specialist computing facilities on campus? Consider lines of communication to ensure complementary services not costly duplication.
- What electronic content will be available: e-journals, e-books, databases, image files, finding aids? What is the role of the Information Commons web site in terms of resources and support?
- Is there easy access to all enterprise systems – learning management, student administration and enrolment, portal?
- How will the virtual environment facilitate research, communication and production?
- What is the institutional policy regarding authentication and authorisation? (Mountifield, 2004a ; Mountifield, 2005)

Learning:

- Will it promote learner-centred education and accommodate different learning styles?
- Will it encourage learning communities based on collaboration, group work, discussions and peer coaching?
- Don’t forget independent or solitary learning.
- Be creative with technology-enabled and technology-free environments.
- Consider the learning opportunities that IT provides to go beyond the boundaries of space, place and time.
- Take it even further by collaborating with campus-wide learning initiatives e.g. integration of library e-resources and virtual reference services with learning management system, collaboration with faculty in core curriculum revision to integrate information literacy components and support. Evolve from an Information Commons to a Learning Commons. (Beagle, 2004 ; Mountifield, 2005)

Service:

- How are you going to accommodate the student as customer with an increased service expectation and demand for quality? What is the potential for developing self-service options?
- Explore new service models: mix of services, multi-skilled staff with associated synergy of skills and combined expertise
- The Information Commons has a continuum of service at its core: access, use, evaluate, manage, integrate, and create information
- Consider your options: separate service desks: reference, computing, learning advice, multimedia production or integration or integrated dynamic learning support: IT & information literacy, academic learning, language support – a one-stop shop. (Mountifield, 2004a ; Mountifield, 2005)

Social:

- Do not underestimate the importance of a healthy social environment. Allow recreational spaces and develop a place of community building that promotes social learning. (Mountifield, 2004a ; Mountifield, 2005)

Strategic thinking and planning are essential to ensure that the facility and associated services are strongly aligned with the institutional mission, strategy and values. It facilitates the development of collaborative ventures as it presents a campus-wide view. Tactical planning, on the other hand, will aid in the development of the detailed operational plans and procedures required for a smooth running service. (Mountifield, 2005)

9. Institutional partnerships and collaboration

The organisation and extent of the collaboration will be determined by a shared vision, but typically include participation by least two departments or units, some co-location or sharing of physical space, and staff members committed to collaboration. (Coalition for Networked Information, 2004)
Robust initial and ongoing periodic strategic planning is critical to ensure long-term success in a collaborative Information Commons enterprise. The following questions could form a starting point for discussion.

- What is the Information Commons?
- What are the institutional drivers?
- Is there an alignment with institutional mission, values, campus-wide priorities, plans and policies?
- What are the vision and desired outcomes of the Information Commons?
- What is the institutional and departmental climate: readiness or opposition?
- Who are the potential institutional partners? Is there a shared understanding of the institutional vision, mission, policies and strategic plans?
- Is there a strategic fit of learning support providers? How will collaboration improve a core function of the institution?
- What is the project scope and who are key champions and project sponsors?
- What are the goals and objectives for the next several years?
- How will consultation with stakeholders take place?
- Do you have the commitment of the organisation and its leaders?

Aspects such as the structure, responsibilities and communication channels need to be explored once the partners have been identified and the level of collaboration has been determined. Consider the different organisational and administrative lines, partner cultures, budget structures, reward systems, performance measures unique to the collaborators and accentuate what you have in common. Develop jointly clearly defined and interconnected roles with agreed performance measures to ensure service success. A formal memorandum of agreement or service level agreement could be beneficial to manage expectations, ensure consistent service quality and resolve disputes. Sharing the authority and accountability guarantees that leadership is distributed and the control and risks are shared and mutual. There are significant rewards in collaboration through the longer-term pooling of resources that are used sensibly and creatively. Collaborators share in the outcomes, achievements and criticism. Successful collaboration is based on the commitment of all stakeholders, and requires mutual respect, trust, mentoring and a sense of humour. Do not underestimate the importance of the people involved, at leadership and operational levels, who are the most critical factor in bringing the space to life. (Mountifield, 2005; Wilson, 2002)

Hints for great outcome:

- Establish effective communication channels between all involved
- Document all recommendations, requests and decisions carefully
- Utilise the experience and expertise obtained by others and ask for 2nd, 3rd even 4th opinions on the design, concepts, ideas and potential problems
- Build a level of trust, confidence and courage to allow stakeholders to come up with leading-edge ideas and creative solutions (Mountifield, 2004a)

10. Information Commons case studies

10.1 The Kate Edger Information Commons

The Kate Edger Information Commons (http://www.information-commons.auckland.ac.nz), at the University of Auckland in New Zealand, is an example of the integrated collaborative model located in a purpose-built facility. The five-storey facility opened in late April 2003 and provides in different configurations approximately 1300 study spaces that include 500+ full-productivity computers. The Information Commons is a University Library (http://www.library.auckland.ac.nz/) service in partnership with the IT Directorate. It presents a collaborative student-centred infrastructure for IT, information services and learning support. The facility was designed to be a welcoming space for the Net Generation student. It includes facilities and spaces that accommodate individual and collaborative learning, integrates new technologies with services, and establishes dynamic and innovative partnerships between information and learning support providers on campus. The group work areas, open consultation and adaptable service points allow a greater tolerance of noise and activity. The University of Auckland wanted a leading-edge building which demonstrated its commitment to learning and technology. The 'virtual world' is highly visible from the outside through the glass exterior and mesh screens. The computers are not hidden in closed rooms but integrated into the social and physical environments.

The substantial size of the facility (11,442 square metres/123,161 square feet) created the opportunity to co-locate related learning support and student services such as:

1. The University Library's high demand print and video collection for Arts, Science and Business & Economics students. The collection consists of over 14,000 prescribed and recommended texts. (http://www.library.auckland.ac.nz/slc/slchome.htm)

2. The University Library's Information Skills team which works closely with Subject Librarians across the Library system to design, develop and deliver the Library's multifaceted information literacy programme, initiatives and resources. (http://www.library.auckland.ac.nz/instruct/instruct.htm)

3. The Student Learning Centre (http:/www.slc.auckland.ac.nz/) which assists undergraduate and postgraduate students with the development of learning and performance skills through workshops and individual consultations.

4. The English Language Self-Access Centre (Elsac) (http://www.elsac.auckland.ac.nz/) which assists all students from non-English speaking backgrounds. It supports the growing number of "English as another language" students at the University in improving their English language skills through guided self-study in an electronic learning environment. The Elsac was

transferred to the University Library's Learning Services department as a strategic move to create an integrated and collaborative learning environment.

5. The IC Helpdesk service which provides walk-in support on level 2 and roaming support on levels 0, 2, 3 and 4. The service operates in a cross-functional multi-skilled team environment. The IC Consultants provide a roving consultation service by assisting students using the computers in the Information Commons, work shifts on the IC Help desk, and assist with special projects on a point of need basis. They have a general knowledge of electronic resources, software and databases in the Information Commons, on the Internet, and on the campus network. They are well trained in MS Office type software and Library resources. They also provide printing, scanning and photocopying and general PC skills support (e.g. accessing files from drives).

6. Core student service functions such as, Health & Counselling, Student Association offices, Student Accommodation Centre, Postgraduate Lounge and an International Student Centre.

7. Retail such as a bank, pharmacy, bookshop, hairdresser, travel agent, IT store, and cafes.

Strategic partnerships and collaboration between student learning support providers resulted in an enhanced and attractive learning environment. The Kate Edger Information Commons student support service, a new model based on the re-engineering of existing services, is founded on a commitment to service innovation and excellence.

Students have access to flexible computer workstations and study areas designed for both group and individual work. A high tech environment provides printing, scanning, photocopying and file storage capabilities. The Information Technology infrastructure was designed to provide maximum flexibility to adapt to changing teaching and learning technology requirements. The building is fully wired to each study space, allowing the provision of desktop computers as well as the use of student-owned laptops. Although the design is based on conventional wired networking architectures, provision has been made for wireless technology by the installation of several wireless access points on all levels. Student electronic services are managed through the NetAccount authentication and authorisation system. Students can access the Internet from within the University, University resources from outside the University, printing on campus and student email through NetAccount. Students have access to standard productivity software, University of Auckland enterprise systems such the learning management system, the student enrolment system, student web mail and University and Library web pages. An enterprise software environment for all students regardless of which faculty they belong to is a new strategic development at the University of Auckland.

The Information Commons provides a variety of spaces and furniture, in different configurations, allowing for both group and individual study and relaxation. The design of the physical and virtual environments as well as the associated learning support accommodates different learning styles. It encourages group work, collaboration, peer coaching and the development of learning communities, while also providing for independent or solitary learning. Students have a choice of IT enabled and IT free spaces to suit their particular needs. (Mountifield, 2003)

The development of IT and information literacy (e-literacy) skills in the University community, especially undergraduate students, is a key focus area of the Information

Commons. Opportunities for training are integrated into all aspects of service. We assist students to acquire these skills through:

- Courses in computer, information, language and learning skills presented in flexible teaching spaces. Students are able to use the library's online bookings and statistics database to enrol in information literacy courses (http://www.library.auckland.ac.nz/booking/1coursepage.asp) and language workshops (http://www.library.auckland.ac.nz/booking/els1coursepage.asp).
- Individualized instruction is provided in consultation spaces throughout the building and during user transactions. IT literacy support is provided by the Student Learning Centre through courses while Information Commons Helpdesk Consultants provide point-of-need roaming support throughout the building.
- Several layers of instruction, catering for different needs and preferences, are available in a wide ranging collection of guides and self-paced tutorials in both print and electronic format. A range of frequently asked questions are available from the Information Commons web pages. Students who are unable to attend library courses can download the course handout from the online bookings database. The University Library in partnership with the Centre for Flexible and Distance Learning developed an interactive online tutorial for the Voyager catalogue. It is in the style of a graphic novel and uses simulations to teach students how to use Voyager. It follows three fictional students as they conduct research for an assignment and gain valuable information literacy skills along the way. (http://www.library.auckland.ac.nz/instruct/tutorials/voyager/index.html)

Academic staff and learning support providers at the University of Auckland work together to develop e-literacy competencies in students. Several university documents and policies such as the strategic plan, academic plan, graduate profiles and an institutional information literacy policy underpin e-literacy programmes, activities and support. Various learning support providers collaborate to develop and support e-literacy. It was one of the strategic goals during the planning process of the Information Commons and the collaboration has evolved and strengthened over the past three years. The University Library and Student Learning Centre, collaboratively and individually, offer a multifaceted information literacy programme consisting of discipline-specific and generic components. There has been a noticeable increase in the use of e-literacy, learning and language support offered by all units located in the Information Commons. (Mountifield, 2004b)

The University Library's information literacy statistics are showing a significant upwards trend since the opening of the Information Commons in 2003

	2005	2004	2003	2002	
Presentations to groups	2056	1838	1527	898	
Participants in group presentations	27797	21606	17924	13409	

(Source: CONZUL statistics - www.aut.ac.nz/CONZUL/statistics.htm)

A new collaborative initiative is the development of a generic capabilities programme for doctoral students which will seamlessly blend the programmes and support of the various units (University Library, Centre for Professional Development, Student Learning Centre, Postgraduate Careers, Academic Departments) as well as develop new programmes. The programme will be governed by representatives of these units and administrative and marketing support will be provided by the Graduate Centre.

The integrated collaborative Information Commons model has proven successful at the University of Auckland in terms of e-literacy support. Its ongoing success and renewal is

contingent on the ability of the collaborators to blend their services, programmes and capabilities to achieve a student-centred and holistic learning experience.

10.2 Information Commons at the University of Calgary

The Information Commons at the University of Calgary opened in 1999 as a collaboration between Information Resources and the university's Information Technologies unit (http://library.ucalgary.ca/services/informationcommons/). As mentioned previously the Information Commons at the University of Calgary is an example of the integrated service model wherein there is more than one unit which provides service. These two units work collaboratively to provide face-to-face service to the faculty, staff and students. The Information Commons is housed within the library building and is the library's central service desk for both reference assistance and technical assistance, with librarians and technical experts offering one stop service and one step referral to tier two experts as required. (Beatty, 2003)

The Information Commons is not a high tech facility. It was designed as an integrated learning centre. It provides a variety of learning spaces and workspaces with access to digital resources. It is a fully wireless facility, with 230 PC's with full productivity software, 25 laptop docking stations, seating for 80 at tables, 12 bookable collaborative workrooms (3 with PC's, 2 with video/DVD players), a special media area with two scanners, and one adaptive technology workroom with software for the visually impaired. The Information Commons has two 25-seat classrooms with PC's, which are open for student use when they are not being used for instruction.

The Information Commons provides both formal and informal learning opportunities. The classrooms are reserved for information literacy instruction, productivity instruction, bibliographic software instruction and embedded course instruction for specialized software, e.g. SPSS instruction within a research methods course (http://library.ucalgary.ca/services/schedule/).
The Library and Information Technologies have been able to develop a high profile in information literacy instruction as well as technical literacy instruction and support. Classrooms are essential in an Information Commons and, certainly at the University of Calgary, they are essential to the mission of the library- to allow users to get the information when, where and however they need it.

Informal support for learning has many aspects. We have concentrated on the physical space, service, the virtual environment and maintaining a social learning atmosphere. Physically the space is attractive, comfortable and welcoming. The workstations are designed to allow for three or more students to work collaboratively and comfortably together. The collaborative workrooms are also designed to be comfortable and can accommodate 10 or more students. The facility is open 24 hours a day for 5 days a week with shorter hours on Saturday and Sunday. Face to face assistance is always available. When the reference and technical staff are not scheduled, student navigators and night assistants provide basic library assistance in addition to the technical assistance. Students report that they use the commons because they know that they can get help if they need it. The library has recently revamped its web pages to allow for easier navigation and more successful access to information (http://library.ucalgary.ca/). We encourage students to collaborate, and to work together in a social learning environment within an atmosphere of respect.

While the students have the Information Commons as their centre for learning skills support, the faculty have similar learning support on campus. Librarians and information

technology consultants assist the faculty in acquiring the knowledge and skills they need to navigate the digital world. Additionally, The Teaching and Learning Centre (TLC) provides direct assistance for faculty to acquire new technical skills and to learn how to best integrate technology into their teaching. While not directly linked with the Information Commons the TLC has partnered with both Information Technologies and the Library together and separately in various learning support endeavours for faculty as well as graduate students. Whether it is in exploring the opportunities of the learning management system by embedding library resource information or learning a new application such as Breeze to heighten the learning for faculty and students, it is clear that the boundaries between these units are being overcome on a regular and more frequent basis.

The annual Faculty Technology Days, sponsored by the Library, Information Technologies and The Teaching and Learning Centre is an example of high profile collaborative instruction possible among these units. (http://www.ucalgary.ca/ftd) Each year since the opening of the Information Commons, these units have come together to offer a series of workshops designed to highlight the digital world and its relationship to teaching and learning. Sessions range from how to integrate sound teaching methods into a Blackboard course, to an introduction to a new database, to new social software, to a panel discussion on plagiarism. In 2006, 37 sessions were offered and attended by over 300 faculty and graduate students. It is not necessarily the only time that these sessions are offered, but it is the only time when there is such a range of workshops offered at once. It is also an opportunity for the three sponsoring units to showcase their expertise and their collaboration.

Support for e-learning and e-literacy really extends beyond the boundaries of the Information Commons. The librarians have established relationships with the faculty, with Information Technologies and with the TLC. It is through these relationships that additional learning support activities take place. Exploration of the virtual learning environment generally leads to new tools or new uses of existing tools. An example of a newly developed tool is WISPR, an online tutorial on the information search process developed by librarians in collaboration with TLC (http://webapps2.ucalgary.ca/~commons/servlet/wispr/app). The Information Commons has become the platform from which other services and collaborations have been and will be launched. It is in fact more than a space or a service; it is an idea and a vision of the future.

The future of the Information Commons at the University of Calgary lies within the new, to be built, Campus Calgary Digital Library (http://ccdl.ucalgary.ca/). This new building will house the Library and the museum, archives and special collections, and Information Technologies, The Teaching and Learning Centre and Student and Academic Services. The new collaborations which will occur will bring new and creative learning outcomes for both students and faculty. This new building could lead to the transformational change that Beagle (2004) described where the Information Commons supports true collaborative learning beyond the library's boundaries.

11. Conclusion

For most academic libraries, the past decade has been an era of continuous change. The digital environment has indeed arrived and we are living it. Early on in this era of change, libraries began to look at ways and means of making the library environment more meaningful and aligned with the digital environment and new ways of learning. The Information Commons, which offers face to face service within an integrated digital environment, has become a service model that many libraries have adopted and designed

to meet the learning needs of their students. Collaborative service models began to emerge and have brought about new services which support learning. Through careful and thoughtful strategic and tactical planning academic libraries with new partnerships can create a powerful learning environment, the Information Commons. The next phase of collaborations will no doubt bring about even more creative and transformational spaces and services for the learner.

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Appendix A. Information Commons: Planning Checklist

Strategic Planning:

- What is the Information Commons?
- What are the institutional drivers?
- Strategic fit with institutional plans and policies?
- Who are the potential institutional partners?
- What are the vision and desired outcomes of the Information Commons?
- Project scope
- Key champions – project sponsorship
- What are the goals and objectives for the next several years?
- Consultation with stakeholders.

Operational Planning:

Design brief:

- New construction or alteration of existing space?
- Define the purpose of space and functions
- Identify the needs and requirements of all stakeholders
- Space and size requirements

Project Management:

- Project Manager
- Method (team, committee, departments)
- Resources, commitments for planning
- Project tracking, outcomes
- Accountability and reporting
- Timeline & budget
- Conduct focus groups, interviews

Project teams:

- Membership and size
- Clarify roles, responsibilities and required team skills
- Establish effective communication channels between teams and with rest of staff
- Documentation
- Review and disestablishment

Budget:

- One-time costs (building and associated costs)
- Recurring costs
    - Staff
    - Technology, hardware, software
    - Operational

Service considerations

- Service model and philosophy
- Integration strategies with partners
- Governance and management
- Staffing requirements and training
- Hours of operation
- Access and security considerations

Marketing and communication

- Marketing plan
- Outline methods of communicating service (web, email, brochures)
- Ongoing communication plan (reports, meetings)
- Ongoing assessment of operation, goals, mission

Collaboration/Partnership Agreements

- Identify need for agreements
- Develop agreements, including problem resolution process
- Integrate into partners' strategic plans and planning process

Pre-Opening Analysis

- Basic components in place
- Hardware, software, networks etc. operational
- Training completed
- Staff from collaborating departments aware of new service
- Client and IT support in place

Opening

- Timing of opening
- Marketing
- Role of key faculty in launch and promotion
- Demonstrations, examples of service