

## Digital College – Organizational change for enhanced student learning and engagement at Algonquin College

### Opportunity

Algonquin College in Ottawa has been involved in online learning for over a decade, with courses in distance education, the School of Business, and General Education electives the first to be offered in an online format. From the beginning, the goal of offering more courses online has been to engage students and enhance their learning.

The College is now in the final stages of approval of two documents outlining the future of Algonquin – *Vision 2020* and the *Strategic Plan for 2012-2017*. In the President's Message that introduces the draft *Strategic Plan*, Robert Gillett describes how Algonquin College seeks to embrace the new learning and technological environments and how the new generation of students are looking to "take advantage of widespread mobile technologies, social networks, book readers and the like. We will use connectivity to increase student, faculty and staff access to new delivery modalities, online textbooks, learning management systems, captured lessons, digital curricula, programs and services....By offering four delivery modalities—on-campus, hybrid, online and mobile—the College will provide greater choice and flexibility, more effectively meeting the needs of the digital generation and the other learners we serve".

At the centre of this organizational shift, the "Digital College" is among the four overarching goals of the 2012-2017 *Strategic Plan*, including commitments to embrace digital education, create a more flexible, engaging, effective and efficient learning environment, and the leveraging of technology to enhance learning, improve service delivery, and gain efficiencies. Joe Ranieri, from Algonquin's Learning and Teaching Services, positions the Digital College not as a project, but as "a permanent way of doing business".

The Digital College comprises a number of distinct but interrelated initiatives that are at different levels of development. Among the innovations that are having an impact throughout Algonquin College are the Mobile Learning Project, access to online resources, the expansion of online and hybrid learning, the integration of the learning management system, faculty support and ongoing improvements on digital college clarity and expectations, along with the creation of new learning places at the college and new space for labs and applied learning.

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## Innovation

The Digital College goals include:

- Improve student access, retention, success, and completion;
- Embrace the learn anywhere/anytime/anyway learning style of the digital age student;
- Respond to student demand for program and service flexibility;
- Provide a wider choice of college programs, services, and lifelong learning and training options; and
- Provide employers with graduates who are mobile learners, open to change, and skilled for the evolving workplace.

Each of the initiatives provides an essential contribution to the whole.

Mobile Learning Project: By 2015, 100% of the programs at Algonquin will be mobile, defined as having all students using a mobile device as a structured part of their learning. The College is building towards this by having all incoming students required to have a mobile device as identified by the requirements of the program in which they are registered. In academic year 2011-12, there are 27 mobile programs; in 2012-13, there will be 80; and in 2013-14, more than 130 programs will be mobile. The mobile program extends student learning opportunities beyond class time and the classroom. By 2016, there will be more than 20,000 mobile learners at Algonquin.

Each program determines how the mobile devices are used in learning – as they fit the learners, pedagogy, and content – and chooses which specifications the mobile device should have, recommending hardware configuration. The College does encourage standardization; for 2011-12, across the 27 mobile programs, four different devices (Satellite C650-001, Satellite P750-045, MacBook Pro, and Fujitsu Lifebook AH531) were recommended, however this standardization was more to do with hardware specifications, rather than the selection of particular mobile device brands. In addition, students are provided access to leading productivity, collaboration, multimedia, and online learning software and applications through Algonquin's partnerships with companies such as Adobe and Microsoft. Students can get support from the Algonquin Mobile Learning Centre.

Online Learning Resources and Open Educational Resources: All students and faculty have access to online resources, whether they are in a Mobile Learning program or not, through one central location on the Algonquin web site. For students, the resources on the Online and Educational Resources site include access to the Learning Resources Centre, the student information system, the learning management system, IT services, student support services, videos and e-books for academic and technological support, and information from the students' association. Mobile program students have links to the Mobile Learning Centre and the Mobile Learning site as well.

Faculty can link to the resources of the Centre for Organizational Learning, Curriculum Implementation Services, academic support, online training, and learning object and Open Educational Resources from such sources as Merlot, as well as the sites available to the students. All users can link to ePage Reader which converts print to audio files for greater accessibility. One-stop access to all College resources to support learning and the student experience is essential for a mobile learning environment as students connect with one click to the resources and services they need when they need them. Access, flexibility, and enhanced support for learning are available at the touch of a button.

Online and Hybrid Learning: In 2003, the Strategic Plan indicated that 20% of all full-time, day-time course time was to be online by 2012, so that in a program offering 20 hours of classes a week, 20% of these hours were to be online. Depending on the specific program, this goal has either been well achieved, or is quickly being met through a combination of online and hybrid courses.

The months of May and June are typically dedicated to curriculum review and development, which professors can use to convert their courses to online or hybrid. Glenn MacDougall estimated that it takes up to a maximum of 80 hours to re-develop a face-to-face course for hybrid delivery and perhaps double that to produce a fully online course from existing course materials, all depending on the amount of online learning activities

incorporated into the course. Algonquin retains the rights to all courses developed at the College.

Learning Management System Integration: Algonquin College uses Blackboard as its learning management system (LMS) and has created a policy on the use of the LMS in every course. The policy is built around providing the students with what they need to be successful. For all credit courses, the college has expectations around the use of LMS and recommends students must have access through the LMS to:

- Professor and instructor contact information
- Course outline
- Course announcements
- Course materials and other appropriate resources
- Up-to-date progress and assessment results
- Links to online resources

For online and hybrid courses, a description of how the learning is planned, online assignments, and group collaborative activities are to be included as appropriate. Faculty are encouraged to move beyond this – Blackboard is where they start, not where they finish.

Faculty Support and Expectations: Joe Ranieri, in Learning and Teaching Services, explains that a core part of change management is a “constant push on skills development, on professional development” and an entire College department is dedicated and focused on staff development. An Algonquin internal 2011 document, *The Professor in the 21<sup>st</sup> Century Framework*, describes the various skills and responsibilities of faculty at Algonquin in the role of educator. Online and hybrid learning are found throughout, in sections detailing the creation of engaging learning environments, use of various teaching and learning strategies and assessment methods, the development and adaptation of learning materials, the application of technology for learning, and supporting student success.

Changing and Adding Facilities: The Government of Ontario is investing \$6.6 million in Algonquin’s Digital College project to support the construction and equipment costs of audio and video studios and videoconferencing studios and the renovation of general purpose classrooms to labs, simulation facilities, and other hands-on learning environments. As more of the theory-based learning is moved online in hybrid or fully-online courses, classroom space can be re-purposed for hands-on, practice-based learning for such programs as automotive mechanics and dental hygiene.

## Outcomes and Benefits

The Digital College change process is an investment in student demand and success – their needs, capabilities, life circumstances, and continued support have been the guiding principles. The benefits of the new ideas about pedagogy and student learning are not limited to online and hybrid courses, but the thinking, resources, techniques, and creativity also influence classroom practice, methods of assessment, and ways of engaging students in active learning across the institution.

Students in Algonquin's mobile learning programs will use their devices and technology to enhance their learning experience, obtain and work with course materials, participate in collaborative and mobile learning environments and become skilled, confident users of the technologies used within an educational environment and workplace.

Student success in hybrid and online learning courses has been carefully tracked. For example, a fall 2011 study showed no significance difference between student performance results in courses offered in face-to-face and hybrid formats.

## Challenges and Enhancements

Managing the process of organizational change is the major challenge. Major assets to such change have been senior management commitment and leadership, the quantified and clearly articulated expectations for professors, and the inclusion of digital learning in the key vision and planning documents. The gradual nature of the change over the past ten years has been beneficial, as students have been brought on board and new faculty members are aware of the directions and commitments when they are hired. Existing faculty and staff have embraced the changes and accepted their inevitability. Ongoing consultation and plentiful support have also aided the transition, as have documents and policies, such as those on use of the LMS and the Professor of the 21<sup>st</sup> Century Framework.

The challenge is from a cultural, not a technological, point of view.

## Potential

With student demand and success in mind, Algonquin College is talking with vendors and publishers about the provision of e-texts, with the goal of reducing the price of textbooks

by half or making them free whenever possible. E-texts and printing-on-demand is the model for the future and consistent with a mobile learning institution.

A College web site has been created to be populated with learning objects (LOs) made available as open educational resources (OER), whether created at Algonquin or from other institutions. A large community of contributors and users could use peer-to-peer evaluation to assess the quality of the learning objects. Currently Algonquin is talking with faculty members about the uses and development of LOs to encourage understanding and interest in development. To facilitate faculty member contributions, structures for learning objects have been developed – providing frameworks in which professors can load their content and alleviating the need to learn about programming. The expectation is that the first Algonquin learning objects will be put online in about a year.

The research results quoted above that showed the effectiveness of online and hybrid learning have led to an increase in the college-wide goal for student time dedicated to online learning from the 20% goal achieved in 2012 to 25% in the latest plans. This is not to be measured on a program-by-program basis, as for some it may not be appropriate, while for others, such as School of Business programs, this percentage has already been surpassed.

Having focused on online courses for the past ten years, the College is now looking to build capacity to offering complete programs online, in addition to face-to-face delivery. High-demand programs would be offered online to improve access and offer students the flexibility, on a course-by-course basis, of choosing either format. Using online, students could repeat courses and complete their programs without coming to campus and so increase graduation rates.

It is predicted that through a different use of the physical space through more hybrid and online courses, more than 900 student spaces can be added at the College without the construction of new buildings.

Both Glenn MacDougall and Joe Ranieri have been hosting visits, giving presentations, and talking about what worked and what didn't with the Digital College and the change process – and they continue to be open to conversations with their colleagues in post-secondary institutions across Ontario. Many of the resources mentioned in this description are available on the Algonquin College Learning and Teaching Services web site.

## For Further Information

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Online Learning Resources and Open Educational Resources:  
<http://www.algonquincollege.com/onlineresources/>

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