



**LA TÉLÉ-UNIVERSITÉ (TÉLUQ)**  
**L'université à distance de**  
**L'université du Québec à Montréal (UQÀM)**

**A CASE STUDY IN OPEN EDUCATIONAL RESOURCES PRODUCTION  
AND USE IN HIGHER EDUCATION IN CANADA**

**PREPARED FOR THE CANADIAN COUNCIL ON LEARNING**

**BY**

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## TABLE OF CONTENTS

<b>GENERAL BACKGROUND.....</b>	<b>3</b>
<b>WHY TÉLUQ WAS CHOSEN .....</b>	<b>5</b>
<b>STATE OF THE ART .....</b>	<b>6</b>
<b>OPEN CONTENT PRODUCTION .....</b>	<b>6</b>
<b>OPEN CONTENT USE.....</b>	<b>7</b>
<b>OPEN SOURCE SOFTWARE PRODUCTION .....</b>	<b>7</b>
<b>OPEN SOURCE SOFTWARE USE .....</b>	<b>9</b>
<b>CONCLUDING REMARKS .....</b>	<b>11</b>
<b>APPENDICES .....</b>	<b>12</b>
<b>LIST OF INTERVIEWEES.....</b>	<b>12</b>
<b>USEFUL LINKS .....</b>	<b>12</b>

## **1.00 GENERAL BACKGROUND**

1. The Télé-université (TÉLUQ) was founded in 1979 as Canada's only French-language open university. Headquartered in Québec City, it was an independent unit within the Université du Québec system with the mandate to offer distance education to the provincial population and to promote the use of distance education within the Université du Québec system.

2. In May 2005, the TÉLUQ became an autonomous unit within the Université du Québec à Montréal, thus creating the largest dual mode institution in the global Francophonie community. The TÉLUQ continues with its dual mandate of offering DE within the province and promoting its use within the Université du Québec system. It has approximately 30,000 course enrolments in the 2005-06 academic year; enrolment has typically increased annually since the outset. Three hundred and sixty-five (365) courses are offered in 35 different programmes. The institution currently has an academic staff of approximately 280, as well as a number of contract personnel and administrative staff. The division of students and staff in different categories is shown in Tables 1 and 2; Table 3 profiles the TÉLUQ student body.

3. TÉLUQ has four academic departments: economics, human sciences, technology sciences and education. Approximately one-third of its courses are totally online (supported by print and either a CD-ROM or videostreaming depending on students' access to broadband). All new courses are going online.

4. TÉLUQ has a strong IT infrastructure. It is linked to the provincial broadband research network and has a portal for each course.

**Table 1: Percentage of students (2005-06)**

Hors programmes(libres et transferts)	30.0
Sciences de la gestion	41.0
Informatique appliqué	7.5
Communication	4.6
Lettres et langues	4.1
Psychologie	4.0
Sciences	2.5
Sciences sociales	2.1
Autres	4.2
<b>Total</b>	<b>100%</b>

**Table 2: Number of academic personnel (2005-06)**

Professors	50
Instructional design & editorial experts	60
Undergraduate tutors	130
Graduate school support staff	40
<b>Total</b>	<b>280</b>

**Table 3: Student Profile (2005-06)**

Average age	34 years
Women	67%
Men	23%
Part-time	95%
Montréal	54%
Québec City	18%
All other regions in province	28%
Outside Québec	5%

## **2.00 WHY TÉLÉ-UNIVERSITÉ WAS CHOSEN**

Télé-université (TÉLUQ) was chosen as one of the cases to study, above all, for two reasons:

1. The institution fulfils three of the criteria listed in the guidelines:
  - a. It uses open educational resources (OER),
  - b. It produces OER, and
  - c. It uses open source software (OSS).
  
2. It is the only French Language exclusively “at-a-distance” university in Canada. TÉLUQ began primarily as a correspondence university that made extensive use of educational television and in the last five years has been migrating more and more of its offering on-line. Currently, one third of TÉLUQ’s 350 courses are available on line; these courses represent a significant majority of student activity.

### **3.00 STATE OF THE ART**

#### **a) Open Content Production**

The TÉLUQ is taking a leadership role in the development of institutional, national and international learning object repositories that are as open as possible.

- Institutional: TÉLUQ has its own (Paloma-based) repository that is gradually being built up; it contains about 100 objects at present. Faculty determine how openly the content is to be shared under the Creative Commons licence. To date, most content is totally open to use for those inside and outside the institution. TÉLUQ is currently meeting with every UQAM faculty to solicit objects; the Faculty of Education recently agree to contribute 2,000 objects.
- National: LORNET is a partnership led by the TÉLUQ that includes the Universities of Waterloo, Saskatchewan and Ottawa, as well as Simon Fraser University (Surrey) and the École Polytechnique de Montréal. LORNET research is organized around 6 themes, each grouping 3 to 6 projects. Themes 1 to 5 will provide research results, methods and software components to be integrated in the TeleLearning Operation System -TELOS. Theme 6 will build and test TELOS through training and knowledge management environments built each year with partner organizations, transferring research into real life applications. The Natural Sciences and Engineering Research Council is supporting the initiative, which also has significant industrial participation (Hydro Quebec, Desire2Learn, etc.); it is called Portals and Services for Knowledge Management and Learning on the Semantic Web.
- International: LORNET is Canada's representative in GLOBE.

The TÉLUQ is actively involved in content production for distance education study. All its courses are complete, modularized packages, with a strong bias in some quarters to faculty writing considerable portions of the course, with minimal use of a textbook – readings are preferred by some faculty, sometimes quite passionately

However, with a few exceptions by committed faculty, no course content is open, although any course is accessible on the web if one knew how to find it. One faculty member wrote a module for a programme in Europe, put it online and is happy to have people use it. However, the URL is not publicized, and he does not tutor people who might use the Module, working only with

students registered by the partner university. Another faculty member is more than ready to make her online course(s) open, but she uses a number of video clips from external experts, and the TÉLUQ's consent form only includes use of the clip for registered students. Putting the clips online, open to everyone, would violate IP. Faculty perceive a reluctance to change in senior management.

Because the world's French-speaking population is so small, there is little fear of content being stolen by unethical competitors, but the target population of potential French-speaking enrollees is so small that there is concern that revenues could be impacted if courses were made freely available, even though no accreditation would be given unless a registration fee were paid.

Leadership in use of OES comes from LICEF, a research enterprise, and those in IT/TI (Technologies de l'information) department, many of whom were previously associated with LICEF.

Perhaps as many as 30% of faculty might be involved in some aspect of OES as a research project and/or matter of personal interest.

All objects now produced at TÉLUQ meets CanCore and IEEE standards for meta-data. TÉLUQ has a rigorous quality assurance program, that starts with an instructional design and can include review by outside content experts and pilot-testing modules. A regular course review and revision process is also adhered to.

By terms of the collective agreement between faculty and administration, all instructional content at TÉLUQ is the property of the professors, however the courses are the university's property since it has added value through its instructional design, student support, tutoring and other services.

## **b) Open Content Use**

The use of open content is not tracked at the university, nor is there any reward for faculty members who develop and/or use open content.

TÉLUQ has engaged in considerable collaborative work within both the French and English-speaking communities in Canada and abroad. The TeleLearning Network of Centres of Excellence, LORNET, and Industry Canada's Implementation and Deployment of Learning Design initiative are but three examples of such work.

## **c) Open Source Software Production**

The TÉLUQ is actively engaged in the production of an open-source learning management system, Concept@, that uses open source software (.Net); DotnetNUKE, Apache, Tomcat, and other software are also used. This is the most recent of several TÉLUQ initiatives in developing customized software to

meet the needs of French-speaking learners for whom there are not many products suited to their language and culture.

Initially, OSS was a research activity within TÉLUQ, that the institution tried – unsuccessfully – to commercialize. Now, OSS is a matter of institutional policy and software is developed primarily to serve institutional needs.

At present, the Montreal campus uses Explor@, the Quebec campus Adaptweb and other entities use SIDEFF. Even the registrar's office and payroll services use customized software, GDA, developed by TÉLUQ. For the most part, these are not open; e.g., GDA and Adaptweb are Oracle based, and even Explor@ is Windows dependent. As a matter of policy, TÉLUQ would share any of its software with another university "as is" at no cost

Explor@2 is a virtual learning environment developed by the LICEF Research Centre at the Télé-université (<http://explora.telug.quebec.ca/2.0>). In the *Explor@2* bar, the learning resources are grouped into five menus: *Self-management* (Autogestion) (personal profile, suggested schedule of the activities), *Information* (texts, bibliography, webography, etc.), *Production* (questionnaires, text editor, PowerPoint, etc.), *Collaboration* (group profile, conference rooms, forums, etc.) and *Assistance* (methodological or technical guides).

The virtual forum tool, an adaptation of the freeware phpBB ([www.phpbb.com](http://www.phpbb.com)), is used mainly for spontaneous comments at any time during the course, for reflective comments at the end of each activity and for some structured interventions related mostly to the first and last learning activities.

The rooms have been developed in PHP-based Web applications and data is stored in a *MySQL* database. The rooms connect with the homemade instructional management system to assure the authentication of the students and tutor.

Products developed using primarily open source code (even if not shared) include the following examples:

- Conceptual Forum software - links activities and discussion comments seamlessly, thus changing each activity and discussion - was developed by an IT faculty member for use in his course and is being used by others as they hear of its strengths
- SPIP - resembles an editing tool, and is being used by faculty who want to take more control over their course content instead of being dependent on IT personnel to make changes
- Info-compétences - is an open web site developed by an IT faculty member, with a tool to assess competencies. At least one other faculty member has since used the tool, keeping the structure but modifying the content to fit his needs

- MOT – Modularisation par objets typiques (and Mot-Plus in HTML)- is based on cognitive theory of what is content, what is process, etc., and diagrams a course according to theory; it is used by only a few faculty

#### **d) Open Source Software Use**

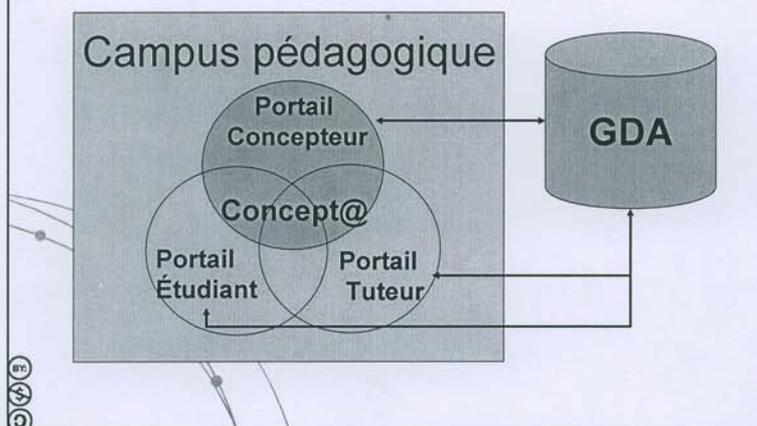
The TÉLUQ now has a comprehensive vision of how it will use OSS across the entire institution. Concept@ is the platform to which all courses will migrate, with the Explor@ courses targeted for migration in the summer of 2006 as the first phase. The diagrams on page 10 show:

- a schematic of the Virtual Campus envisioned for the future, with portals for the student, tutor and course developers, supported by the administrative support functions in GDA.
- the Concept@ architecture, with the shaded portions being in open source.

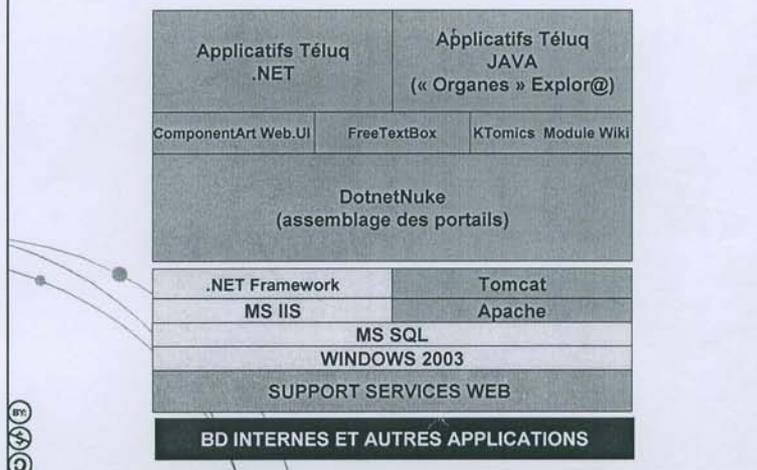
In addition, the Québec universities are actively engaged in a collaborative project to promote the use of OSS in the province's universities and to migrate from one platform to another cost-effectively. OSS programmes such as Moodle are being evaluated intensely.

TeleLearning produced TELOS, an English-language platform generator that is freely available to any public or private sector user; CRÉPUQ is producing a website of open source tools for French-language institutions.

## Campus Virtuel TELUQ



## Concept@ -Architecture



## **4.00 CONCLUSION**

The TÉLUQ has a clear vision for moving the institution online, creating a Virtual Campus that is heavily dependent on open source software. TÉLUQ, perhaps more than English-language institutions, develops software when none is available to meet the needs of French-language faculty and students. The architecture planned for the Virtual Campus will enable open content sharing, and work is already underway to create an internal object repository. However, issues of copyright, collective agreements and intellectual property remain to be fully resolved before content can be as widely shared as software is.

## **Appendix 1**

### **List of Interviewees**

Olga Mariño, Professeure en informatique

Richard Hotte, PhD., Professeur en informatique et chef de département

Gilbert Paquette, Directeur des services académiques et technologiques, TÉLUQ, et Directeur du réseau de recherche LOPNET, Titulaire de la Chaire de recherche du Canada en ICTA

Hamadou Saliah-Hassane, Ing., Ph.D., Professeur UER Science et Technologie, TÉLUQ

## **Appendix 2**

### **Useful Links**

<http://explora.teluq.quebec.ca/2.0>

<http://www.phpbb.com>