

## **Maskwacis Cultural College Case Study**

### **The benefits of an Open Educational Resource implementation in an Indigenous College**

Professor Rory McGreal, UNESCO/ICDE Chair in OER, Athabasca University, Canada

Maskwacis Cultural College (MCC) is a Cree indigenous two-year college offering courses from basic literacy to university transfer programs. The College is located in central Alberta, western Canada. In 2015, the Alberta government made available funding of \$30,000 for the development/adaptation of OER as part of its support of First Nations colleges. This funding for the development of indigenous content was aimed at driving stronger indigenous perspectives in Alberta post-secondary learning. MCC, in response to the needs of its indigenous students and the unique environment of its faculty, used this funding to support its belief in the need for indigenous students to learn in new technological environments and become digital citizens while maintaining their indigenous perspectives.

They used the funding for the development of two courses integrating indigenous approaches and localising content. The OER were chosen, mixed and remixed to experiment with and assess new approaches to learning in a First Nations environment. The first course was in Sociology and the second in Earth Sciences. In addition, a third course in Cree Studies is being developed as a direct consequence following from the initial projects, supporting the continuation of innovative learning approaches using OER.

The project goals were to improve course quality and the content's appropriateness for aboriginal students in a technological learning environment, which is considered essential to support their participation in a digital economy. It was also expected to have a positive effect on improving access to courses and retention of students. A major innovation was in the approach taken in developing, assembling and adapting courses using OER. The College adopted agile methodology for course construction, consisting of an iterative process in building lessons and modules in short development cycles. This new approach combined with OER has been instrumental in significantly cutting down the time demands on the instructors and instructional designers.

The principal benefit from using OER was the high student engagement with open pedagogy, which resulted in students completing their courses, and positioning them to be successful in the skills and knowledge required for course completion, but also in their mastery of new technologies for learning. In addition, in an informal survey, the majority of the students showed a marked preference for the OER online textbooks. The students were very excited studying on computers using the digital content and videos; and they worked well together. The overall achievement level of students as measured by the final exam showed real improvement.

For the instructors specifically, a major benefit was the ability of the teachers to modify and remix the content to support their indigenous students by integrating the OER using an indigenous perspective. OER were also adapted to suit each instructors' approach to teaching and their students' learning styles. Modified OER were also redistributed to colleagues in the College, to spread the benefits. Instructors also noted that there was a substantial decrease in course preparation time when they took full advantage of the existing OER. The OER contained multi-media activities augmented by documentation, which supplemented and enhanced the effectiveness of the original content. An added benefit was the excitement generated by teachers as 'early adopters' in the OER programme extending to other staff members and the desire to continue integrating OER into other courses at the College. Most of the instructors who have used OER want to use OER for other courses.

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Instructors are developing OER for adult literacy and for a general Plains Cree supplement which is an OER that can be added as a module to any course. Using open and agile methodologies, OER were developed/adapted just like the layers of an onion. The core subject knowledge was “ringed” with modules on ethics, legislation and standards in a field, and an indigenous worldview layer.

As a result, the OER are facilitating the development of stackable portable credentials that can be achieved in a timely fashion and built up to the diploma level. The OER are externally peer reviewed; this has added credibility to the grades of First Nation students as the OER are based on globally recognized open content.

As a direct result of the implementation of open and agile course development processes, there have been several job opening for MCC students. Students worked as research assistants supporting the course developers and each other searching/finding/accessing/downloading and even writing course-relevant OER. There have also been volunteer positions for students as web navigators and assisting at workshops and conferences in registration and introduction of speakers. This has been excellent for job training, which has been good for the economic development of the reserve community. Open education gatherings have also helped MCC to connect with the open education community in Alberta and internationally, including OER innovators and experts.

In addition to the above, the savings to students not paying for commercial textbooks, in the first year was more than \$8000. (27 students no longer using the \$100 commercial text equaled \$2700 in savings in one course; 22 students dropping a \$200 text equaled \$4400 in savings). Over three years it is expected that these two courses alone will allow for more than \$48 000 in savings to students.

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