Information for Teaching and Learning: Students’ Needs

The 43,000 students who attend University of Ottawa have diverse needs for information, depending upon:
- Level of study and their program (undergraduate, graduate, professional, certificate),
- Faculty and discipline,
- Background (age, language, origin, etc.),

Students may use scholarly research, professional material, and need access to a wide range of specialized formats and subjects, according to their program or subject. Students in professional programs need sources that represent the profession’s knowledge base. In addition, University of Ottawa students study in either French or English or both.

The background of students is increasingly diverse. Canadian universities are accepting more international students, at all levels, and they may have differing needs for learning materials. Mature students differ in instructional needs: the average age of students enrolled in Canadian universities was 24. (Stats Can 2015).

The digital environment also supports the diversity of student learning styles, and both instructional materials and programs have evolved to offer settings and information reflective of visual, aural, physical and verbal opportunities for learning. Digital classrooms and learning centres also provide students with diverse varieties and formats of information.

Student retention rates, or rates of graduation, are widely used as key indicators to university performance, and research studies have tracked use of library resources against student performance and graduation rate. A correlation between library use and student success has been demonstrated in a number of studies, and has verified the need for good library collections, services and space for students.[1]

While most studies of student success and library use have focused on use of information resources, the literature on student engagement and success emphasizes the importance of library space. Student use of library space has increased over the last decade, and study space, long hours, and wired access play an important role in student support.

Information needs of many undergraduate students are satisfied by aggregated information databases, course readings, and general library collections, but undergraduates often undertake research projects. Digital collections have facilitated the engagement of undergraduates in primary research.

Although studies indicate that graduate students depend more upon the library than researchers, graduate students are more likely to reflect the needs of researchers for research collections.
Libraries may not be able to provide all course materials, such as textbooks and course packs, even though course choices of students are sometimes influenced by the high costs of textbooks.\[2\] Indeed, a few university libraries have responded by providing print textbooks and course readings.\[3\]

Containing student costs for course materials belongs within the national conversation about the affordability of higher education. Although enrollment in higher education continues to rise, student debt loads have only been contained by increases in student aid: a trend that suggests affordability remains a real concern for students and universities.

Open Educational Resources (OER) are a response to high costs of student materials, and align with Open Access values. These teaching and learning digital materials are published under an open license, and are freely accessible. Over the last decade, they have increased in popularity, and a recent leveling off in textbook prices has been partially attributed to OER. In addition, they provide more flexible learning environments and increase accessibility.

University of Ottawa is a member of eCampusOntario, a nonprofit organization collaborating with Ontario universities to test, evaluate and make available open resources for both online and in class learning. Open source learning tools, such as Blackboard and Moodle, also are ways of providing course information freely. The Open Science movement has identified Open Educational Resources as within its boundaries.

The textbook market, like the scholarly journal market, is inelastic. The professor chooses the textbook, the publisher sets the price and for digital texts, the digital access terms, and the student pays. This is true also of print textbooks, of course, but digital access controls make it less possible for students to find a workaround.

Adoption rates for digital textbooks have been slow; students, for a variety of reasons, prefer print textbooks. This resistance has declined as digital access is more commonplace, and commercial textbook and education resources publishers, such as McGraw Hill Education, Cengage, and Pearson, are responding by experimenting with different license models and formats for textbooks, and with assessment tools, and Learning Management Systems.

In response to the growing trend for commercial acquisition of teaching and research infrastructure in universities, a recent SPARC report raises concerns about the capability for commercial digital teaching materials to collect data analytics about both student and professors.\[4\] This data is potentially marketable, and the report recommends that universities make careful consideration about control of data analytics in such licensing arrangements, to ensure that ownership of institutional information is retained, and rights of privacy respected.
Student use of information in this digital transition is influenced by many of the same forces as faculty face in their need for research information. Curation of and convenient access to appropriate library resources ensure student success, and a sustainable collection will reflect students’ needs, differing as they do, from those of researchers and faculty.


[2] A Canadian study showed that 54% of post-secondary students were not buying at least one required textbook, and 17% were dropping out of courses, due to high textbook costs. https://bccampus.ca/files/2018/05/OpenEdInfoSheet_Spring2018_03.pdf. Accessed April 15, 2019.


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