

Plagiarism Detection Software and Academic Integrity: The Canadian Perspective

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Some would say that it's the sign
of a mature technology to generate
as many problems as it solves.
(Roszak 2004)

Academic integrity, plagiarism and higher education in Canada

According to a 2003 online survey of 16,000 undergraduates at eleven Canadian universities conducted by Center for Academic Integrity founder Donald McCabe, one third of Canadian university students have plagiarized at least once before graduation and one in five undergraduates admitted to other serious breaches of academic integrity. Five percent of students admitted submitting an essay they had purchased online as their own (Sokoloff 2003). At top-ranked University of Toronto, from 2001 to 2002, internet plagiarism increased from approximately 55% of all academic offences in the Faculty of Arts and Sciences to 99% (Wahl 2002).

Faced with these alarming statistics, Canadian universities are increasingly using text-matching software such as Turnitin® * as a means to prevent and detect plagiarism. The number of Canadian universities and colleges that currently subscribe to Turnitin® is, according to one estimate, as high as twenty-eight (Brown 2004) and one provincial university consortium, the Council of Ontario Universities, has negotiated a consortial agreement with iParadigms, creator of Turnitin®, for all its member institutions (Goel 2002). In fact, the first Canadian conference on academic integrity Ontario Universities Conference on Academic Integrity, n.d.), held in Ontario in August 2003, featured keynote speaker John M. Barrie, president and founder of iParadigms, and included a forum on the effectiveness of dealing with plagiarism using Turnitin®.

In the same year, McGill University, located in Montreal, Quebec, undertook a limited trial of plagiarism-detection software in specific undergraduate courses. Despite the fact that use of Turnitin® had become a relatively common practice in Canadian and American universities, the McGill trial received considerable attention from student, national and international media after a student refused to submit his work to the service and successfully challenged the university's policy requiring the use of Turnitin® (Brown 2004; Churchill 2004).

Student and faculty reactions to the software on the McGill campus have been mixed.

* Turnitin® is registered trademark of iParadigms, LLC, "a California company that provides a service to universities, colleges and other educational institutions to assist in the prevention of plagiarism." For more information, see their website: <http://www.turnitin.com/>.

Despite the continuing debate however, one indisputably positive outcome of the Turnitin® trial has been increased campus awareness of the importance of academic integrity and discussion of the use of alternative methods of deterring plagiarism. Collaborative initiatives involving key stakeholders, including the University administration, Teaching and Learning Services, librarians and student advocacy groups, are being pursued to promote academic integrity at McGill. These activities provided the impetus for our research as we asked ourselves if Turnitin® has had the same impact at other Canadian research-intensive universities. What roles do librarians at those institutions play in promoting academic integrity and deterring plagiarism?

In our review of the literature on plagiarism and academic integrity, we limited ourselves to texts which discuss the role of the librarian in promoting academic integrity on campus and examine the impact of text-matching software, such as Turnitin®, on collaborative initiatives between librarians and other campus partners in educating students about the ethical use of information.

Role of the Librarian

As information literacy experts, librarians believe they are especially suited to play a strong lead in deterring plagiarism and promoting academic integrity on campus (Burke 2004b;Lampert 2004;Wood 2004). Librarian interest in the issue of plagiarism is evidenced by the sizable amount of discussion and research published in the professional and scholarly literature since 1998 (Arp & Woodard 2002). However, the activities librarians undertake in the promotion of academic integrity and deterrence of plagiarism on campus have changed considerably over the past seven years. Prior to 2000, librarians describe their role in the fight against plagiarism as that of a “plagiarism buster” (Wood 2004) charged with assisting faculty in tracking down plagiarized text, teaching effective search strategies for detecting plagiarism, and maintaining lists of term paper mills (Arp & Woodard 2002;Burke 2004b;Oliphant 2002). In more recent articles however, they portray themselves as equal partners in educating students about plagiarism and promoting academic integrity on campus. Therefore, if Auer and Krupar (2001) suggest that “librarians are in a unique position to help prevent and detect plagiarism by forming partnerships with faculty to re-examine assignments and instructional session and by informing them of Internet paper mills and useful search strategies” they also emphasize that “librarians must now seek out new roles on campus that will create open and regular dialogues with students about information and its ethical use.”Plagiarism is one area where there is consensus on campus about the need for education. And, as Lampert (2004) aptly points out, just as responsibility for dealing with academic offences is often shared between faculty, administrators, student service officers and librarians, the responsibility for education students about the ethical use of information should also be shared.

We believe this shift from a reactive to proactive role has been brought about by the combination of information literacy standards and the growing awareness of an academic integrity crisis in higher education. Indeed, according to Arp and Woodard’s (2002) informal survey of their colleagues, the emergence of information literacy standards and “the rise of plagiarism, questions of copyright and social and ethical use of information” number among the top five most significant issues facing information literacy librarians in 2000. Standard Five of the ACRL *Information Literacy Competency Standards for Higher Education* (Association of College & Research Libraries 2000)

which deals with the ethical use of information, represents a significant addition to the competencies outlined in the American Library Association's 1989 *Presidential Committee on Information Literacy: Final Report*. Both documents define information literacy as a set of abilities "to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information", but the ability to "understand the economic, legal and social issues surrounding the use of information, and access and use information ethically and legally" (ACRL 2000), represents a significant addition to the competencies outlined in the *Final Report* and, in our opinion, speaks to the widespread use of the web and the concept of "cyberplagiarism" as a compelling issue in higher education.

In addition to information literacy standards and awareness, a second reason for this shift in role may be due to the availability of services such as Turnitin® which have relieved librarians of the task of verifying matching text and allowed them to adopt a more proactive role in deterring plagiarism and promoting academic integrity. In a 2004 article about Hofstra University's experience with Turnitin®, which she personally initiated, and the subsequent decrease in plagiarism on campus, librarian Margaret Burke states: "Of course we are pleased with this decline and we feel that it is the consequence of our using Turnitin® coupled with the more active stance assumed by Axinn Library librarians".

Instructional strategies used by librarians to promote academic integrity and deter plagiarism include modeling the ethical use of information (Wood 2004), discussion of plagiarism and academic integrity in library workshops (Auer & Krupar 2001; Burke 2004b; Lampert 2004; Wood 2004), teaching students how to do research (Burke 2004a; Oliphant 2002), how to cite sources and creating print and online citation style guides and tutorials (Auer & Krupar 2001; Harrison 2004; Lampert 2004; Stubbings & Brine 2003; Wood 2004), and linking to reputable plagiarism deterrence and detection websites (Harrison 2004; Stubbings & Brine 2003). Wood (2004) suggests a "blended information literacy academic integrity" model for librarians based on a six point strategy that includes "balancing the use of detection software with preventative behaviors such as honest discussions during instructional sessions and reference interviews." This strategy is also used at Hofstra University, where librarians inform students about how Turnitin® works (Burke 2004b). Lampert's (2004) "academic integrity information literacy" model for incorporating anti-plagiarism instruction into the disciplines include investigating what plagiarism means within the disciplinary context, becoming familiar with citation styles, communicating professional codes of ethics, identifying disciplinary or professional associations that focus on ethics, and making appropriate instructional resources available to assist students in the study of information ethics.

In terms of collaborative activities, both Lampert (2004) and Wood (2004) provide examples of how to integrate instruction on the ethical use of information and how to avoid plagiarism into student-centered classroom activities. Librarians also play a role in assisting faculty is the redesign of assignments to prevent plagiarism (Auer & Krupar 2001; Wood 2004).

One area where librarians do not agree on strategy however, is how to address students' use of the web to complete their academic assignments. While some believe teaching effective use of the web and how to evaluate and cite websites is one of the best ways to address the problem of cyberplagiarism (Arnold & Jayne 1998; (Auer & Krupar 2001; Lampert 2004; Wood 2004), others believe the web should be addressed

only after students have been taught how to use the authoritative, peer-reviewed sources available from the libraries (Burke 2004b) while others do not address it at all.

Goal of the Study

In this study we sought to examine the role of librarians at Canadian research-intensive universities using text-matching software in promoting academic integrity and educating students and faculty about the ethical use of information.

There are currently 92 universities in Canada (Association of Universities and Colleges of Canada 2004). The “top 10” research universities, calculated according to a combination of the number of Ph.D. degrees and peer-reviewed federal grants awarded and referred to as the “G10”, include:

- McGill University
- McMaster University
- Queen’s University
- Université de Montréal
- Université Laval
- University of Alberta
- University of British Columbia
- University of Toronto
- University of Waterloo
- University of Western Ontario

Since G10 universities are comparable to McGill in terms of their mission, size and structure, we limited our sample to the seven English member institutions who currently subscribe to or use iParadigm’s Turnitin® software in at least one department. Of the universities surveyed, the following six returned questionnaires completed with usable data.

- McGill University
- McMaster University
- University of Alberta
- University of British Columbia
- University of Toronto
- University of Western Ontario

Methods

The purpose of the research was exploratory: we sought to gather information on current practices of academic librarians. Information was obtained from the sample group via two methods: observation and questionnaire. An experience survey, used to gather and synthesize the experiences of practitioners in a particular field (Powell & Connaway 2004), was employed for data collection.

For the observation, institutional websites, particularly sections dealing with the library and academic integrity, were thoroughly investigated for details about current policies, promotion and instructional activity relating to academic integrity. Site maps were

consulted to identify institutional bodies responsible for academic integrity. When the site map was not helpful, the website's search feature was used to search for terms such as "academic integrity," "academic dishonesty," "plagiarism," and "turnitin." Library webpages were searched for information on instruction, information literacy, plagiarism prevention and on using Turnitin®.

The websites were also helpful in identifying possible respondents for the questionnaire. These individuals were then contacted by telephone to explain the aim of the study and to confirm their appropriateness and willingness to participate. In some cases, a more appropriate contact person was identified for completing the questionnaire. In all cases, the actual questionnaire respondent was confirmed by one of the researchers via telephone the week before the questionnaire was distributed. All respondents were employees of the respective institutions and were considered informed on the subject of academic integrity on campus and the involvement of librarians, according to verbal self-report.

Kibler's "Framework for addressing academic dishonesty from a student development perspective" (1993) was used as a basis to develop the survey questions. This framework, designed to help institutions of higher education to assess their ethos, policies and programs from a student development perspective has been, and continues to be used at McGill University as a self-assessment tool. Sample questions from Kibler's framework were selected, adapted if necessary, and grouped into three sections for the survey: "Academic Integrity Policies and Procedures", "Promotion of Academic Integrity", and "Instruction Related to Academic Integrity". Questions about the role of the library were added to each of these sections. An additional section, focusing solely on the role of the library in promoting academic integrity, which does not appear in Kibler's framework, was added. These questions were developed based on common practices identified in the literature review and our own experience.

The questionnaire was delivered electronically with SurveyMonkey.com**, a well-known and reliable online survey tool that allows for monitoring of respondents as well as for aggregating data for easy reporting of results. The questionnaire was composed of a total of 45 questions about information in four areas: policy, promotion, education, and library involvement. It took approximately 10 minutes to complete and included opportunities to add comments or clarifications to answers.

Academic Integrity Policies and Procedures

The first section consisted of a total of seven questions dealing with university policies regarding academic integrity, the use of subscription text-matching software, and the monitoring of academic integrity by a formal university body. When asked if their university had a policy regarding the use of text-matching software such as Turnitin™, five of the six respondents answered yes, with the remaining respondent answering "no". When asked if their institution currently subscribed to such a service, two respondents answered, "Don't know" and "No", respectively. Given our pre-selection of these seven institutions based on observation that each had a least a limited subscription to Turnitin®, this would appear contradictory. These responses could indicate that the

** SurveyMonkey.com LLC is an online subscription-based tool for creating and managing web surveys. It is available from: <http://www.surveymonkey.com>.

licensing agreement is currently under negotiation or that the librarian was unaware of the use of Turnitin® on campus. In answer to the question of whether or not an official body exists to monitor academic integrity on campus, three respondents answered “yes”, two said “no”, and one selected “don’t know”. In only one case was it clear that a librarian is a member of this body, with one respondent selecting “don’t know”.

Promotion of Academic Integrity

The second section of the survey dealt with the promotion of academic integrity at the university and librarian involvement in these activities. Five questions focused on the discussion of academic integrity in campus orientations for new students, new faculty, new librarians and teaching assistants respectively. A discussion of academic integrity was only included in new librarian training in half of the institutions surveyed.

All of the respondents could confidently answer that university documentation does include a definition of academic integrity, that plagiarism is prohibited and why. The university’s expectations and the responsibilities of the student are also included.

In response to a question about whether regular announcements about academic integrity were made on campus, “yes” received three votes, “no”, 2, and “don’t know”, 1. Academic integrity announcements in library publications, websites are made at 2 institutions, with three negative answers and one “don’t know”.

[Link here to the modeling idea put forth in the lit review](#)

Academic Integrity Education

Seventeen questions examined the role of librarians in academic integrity education. These findings indicate that academic integrity seminars are offered in credit courses at three universities; two do not offer them and one indicated “don’t know”. Four of the institutions surveyed offer academic integrity education in their workshops while the other two selected “don’t know”. Types of instruction, with the number of answers for each indicated in parentheses, include: academic integrity presentation or discussion (2); when to include a citation (4); guidelines on citation styles (5); using bibliographic management software (5) and managing information sources from the Web using tools such as FURL, Onfolio, or Pluck (1). Only 2 of our 6 respondents indicated that their libraries offered online instruction in this area. Comments received for this section include:

Academic integrity instruction is offered by other campus bodies such as students’ society, writing centre, tutorial service or first-year office at four institutions, while the additional two institutions could not answer (“didn’t know”). Types of instruction offered by these groups include: academic integrity presentation or discussion (3); when to include a citation (3); guidelines on citation styles (3); using bibliographic management software (2); managing information sources from the Web using tools such as FURL, Onfolio, or Pluck (1).

It is possible that there could be some confusion about what each of these categories represents, as well as some blurring between the categories. However, what is clear is

that all of the respondents offer some form of instruction about the ethical use of information. Given the overlap between academic integrity and information literacy education, this result was not surprising.

Role of the Librarian in Promoting Academic Integrity

The findings for questions about the role of the library in promoting academic integrity support common practices described in the literature: five of the six respondents said librarians do not verify text-matching or suspected cases of plagiarism, with the last university selecting “don’t know”. Librarians are not typically members of disciplinary committees (“yes”: 1; “no”: 4; “don’t know”: 1) nor are they involved in academic skills training for offenders (“no”: 6). The following comment was included: “Disciplinary committee members are members of the academic staff so librarians could be members (in fact, there is one right now). A position for a librarian is not 'reserved', however.”

In contrast, librarians at four of the six institutions assist faculty members in the design of assignments to deter plagiarism, with the other two answers “don’t know”; 2) and five of the six were involved in collaborative initiatives with the campus teaching and learning services unit. Based on the following comments, collaboration with the campus teaching and learning services unit is the most common form of partnership:

Conclusion

Given the fact that our sample was purposive and extremely limited, results are not necessarily representative of academic integrity policies and educational efforts at Canadian institutions of higher education, nor can they be generalized.

Conclusion: go back to Roszak quote

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Appendix

Comments from survey participants regarding instruction:

- When there is a requirement in a specific course that plagiarism detecting software is used, Information Literacy sessions facilitated for the course will include information about using it.
- Responsible use of information is typically always included in IL sessions.
- Library maintains a comprehensive website on plagiarism, cyberplagiarism, and academic integrity.
- Librarians teach sessions in whole or in part on cyberplagiarism, citation guides, how to structure assignments (for faculty), how to research papers (for students), and bibliographic management software.

Comments from survey participants regarding collaboration:

- I think librarians would be happy to help professors design better assignments but I don't know if any are actually doing this at the moment.
- The Teaching and Learning Centre is part of a collaborative partnership with the Library.
- Have worked in the past with the Writing Centre and the Centre for Teaching and Academic Growth (Faculty development) on creation of resources for students and faculty. Will do more in future
- Workshops on promoting academic integrity through course design are offered as part of the Teaching and Learning Services' Course Design and Teaching workshops.
- We hope to work collaboratively in the future.
- We present a workshop for the Teaching Assistant Training Programme on supporting undergraduate research. In this workshop, one of the topics we touch on is plagiarism, why students do it, and strategies to prevent it. We also present a workshop for the Office of Teaching Advancement for Faculty on similar themes.