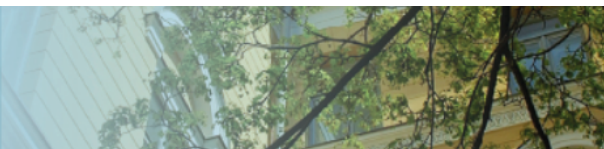


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Plagiarism: A Bi-National Examination

The co-authors are participants in a unique, nine-university consortium in three North American countries on the theme of “Ethical Issues and Policy in the Sciences”. This project, supported by the governments of Canada, Mexico, and the United States¹, provides for student and faculty exchange for the purpose of examining various ethical issues in the sciences through the perspective of each country.

As a result of this exchange, the first co-author (Babin), a graduate student in the Department of Theological Studies at the Concordia University in Montréal, QC, Canada, spent the Fall Semester 2008 at Howard University in Washington, DC, USA, where the other co-author (Patterson) is a Professor of Computer Science. From potentially different national perspectives and disciplinary perspectives, we agreed to analyze the phenomenon of plagiarism in higher education and to consider the practice and university response in both Canada and in the United States.

1. Introduction

In response to proliferation of paper-mills, educators and school administrators are turning more frequently to anti-plagiarism detection software, in order to maintain proper academic conduct. This paper will convey the shortcomings of software alone solutions to plagiarism. We will then look at the rôle of human arbitrators in attempted plagiarism

detection, and examine what makes a good arbitrator. In our examination we will consider the importance of intuition, knowledge, and experience in arbitration.

2. The Problem

In our research into plagiarism, we have called into doubt the effectiveness of anti-plagiarism software, the often heralded saviour of academic integrity, from the increasingly pervasive essay-mills. Plagiarism detection software can create a great number of false positives; where commonly used literary conventions such as, “the night was dark,” which is found throughout thousands of novels, can produce a false flag. The context can also create false flags. Imagine a tale about a male deer sensing danger and pausing at the side of a highway. We could write, “the deer runs along a fence line by a highway, and pausing to consider the safety of crossing the highway, the buck stops here.” Of course, “the buck stops here” is a phrase with US President Harry Truman, referring to his ultimate authority as President. Our quote is used in a different context, and so we are not plagiarizing Truman. We could speculate if there can be any string of words of reasonable length that has not been committed to paper at some point in some context.

Anti-plagiarism software does not consider context nor popular literary conventions, it instead relies on matching the text to a database of existing works. We have shown elsewhere² that when six manuscripts are submitted to a popular anti-plagiarism service, the software proved to be 50% effective; a flip of a coin would be equally effective at plagiarism detection.

Allegations of plagiarism are very serious, because the consequences are so dire, punishments can vary from failure of the work, or from the course, dismissal from the program or university, and/or being barred from federal funding. It is because an allegation of plagiarism can effectively terminate a student's academic future, we need to be more careful than to put all our trust in a coin-flip: heads you're a doctor, tails you're a quick service restaurant technician.

We offer the Justice Potter Stewart heuristic, "I know it when I see it." In *Jacobellis V. Ohio* circa 1964³, US Supreme Court Justice Stewart declared that he did not know how to define pornography but he "knows it when he sees it." We argue that this heuristic should fit into the context of plagiarism as well. Whereas it is hard to give an exact definition of plagiarism, we might be better suited to claim that we know it when we see it. This becomes even more appealing in light of the failure of detection software.

Computers are designed to work mathematically, while human composition is organic, and not necessarily easily reducible to algorithms. The classic example in the computer science literature is the so-called "Turing test".⁴ This hypothetical test posits that we could determine that a computer was intelligent if a human could be placed in one room, and either a human or computer in another room, with the only connection between the two would be interface, say a keyboard, as the means by which the human could ask questions of the unknown party (computer or human) in the other room. If the entity in the other room was a computer, and the human asking questions could not correctly identify it as a computer, the computer would be said to have passed the "Turing test" and

we would consider that such a computer would have intelligence. To this date, no computer could pass a Turing test of any complexity.

From the Turing test we should conclude that human beings are better suited at arbitrating whether a work is plagiarized or not.

This leads us to the question as to what makes humans qualified to be this arbitrator. Can all persons be Justice Stewarts in the plagiarism arena; is this ability to arbitrate intuitive, is it formally learned, is it something than achieved though doing, or is it a combination of the three? And how can we become better arbitrators?

3. University Policies

Academic policy regarding plagiarism in general does not address the reality. When academic policies are too complex or involve extremely severe penalties for a first plagiarism offence, faculty and administrators are likely to bypass formal policies and either ignore the offence or choose some other informal sanction.

One review of a number of policies, predominantly in US universities, indicates that in a significant minority of cases the minimal penalty is failure in the course or expulsion from the university.⁵ On the other hand, a small sample of Canadian universities indicates that all have a policy of graduated penalties.

University	Steps in Plagiarism Sanctions	Minimum Penalty
Concordia University	8	Reprimand
Lakehead University	3	Zero for the work concerned
Sault College	7	Reprimand
Trent University	4	Reprimand
University of Guelph	6	Requirement to submit new work
University of Windsor	7	Admonition

Table 1: Steps in Plagiarism Penalties in select Canadian Universities

What is not evident from these policy statements is whether or not, in general, they are workable.

An interesting statement on the website of the Lakehead University Instructional Development Centre is “Some Stats from University of Guelph website: ... 84% of university students engage in some form of academic dishonesty.”⁶

Unfortunately, this statement cannot be found on the University of Guelph website. However, if the statistic is valid, it presents an interesting contrast to the recent survey by the Josephson Institute of Ethics. In this 2008 survey of nearly 30,000 US high school students, 36% reported having “copied an Internet document for a classroom assignment.”⁷

Another difference we note about the Canadian academy is that there has been a debate concerning whether or not students of visible minorities are more often accused of academic fraud. The proponents of one perspective hold that professors accuse students of plagiarism more often because of their race; the opposite perspective is that many of the visible minority students are international students who may have difficulty in English or French which may be a second or third language. There does not seem to be a challenge to the proposition that there are more cases of plagiarism alleged from one or another definition of this group.⁸

We have proposed an approach developed at the Oxford Brookes University and reported by Carroll and Appleton⁹. Their policy attempts to “deliver more consistent, defensible, fair and transparent penalty decisions.” In revising policy in their university, they have reduced 15 penalties to five.

We have also noted in the co-authors’ direct experience that in at least parts of Canada – and perhaps all Canadian universities – there is a strong emphasis on students’ rights perhaps stronger than with US counterpart universities.

4. The Well-Prepared Arbitrator

We have argued¹⁰ that an arbitrator process is desirable in the resolution of conflict involving cases of plagiarism. Appealing to Aristotelian ethics, professors can become the last arbitrator, given their formal knowledge of academic composition.

A dispassionate professor carries a quality that no automated process (at this stage) can replicate. We have noted, following¹¹, that “a good professor becomes a good professor, by doing the acts of a good professor,” using the Aristotelian model of a just person.

5. The Automated Approach

Because of the seeming proliferation of cases of plagiarism, whether in the United States or in Canada, many universities and other institutions have placed considerable reliance on the use of automated methods to detect plagiarism.

Although there are numerous products which purport to provide this service, clearly the industry leader is a package called Turnitin.com.¹²

We have challenged a number of anti-plagiarism packages, and reported elsewhere¹³ that with one package, it is possible to defeat the software 50% of the time, either with false positives or false negatives. With another package, with sufficient constraints on the submitted material, it is possible to defeat the software in 100% of cases.

There also seems to be a difference in response to the use of Turnitin.com in particular in both countries. Although there has been litigation in the US by students from two secondary schools with required use of Turnitin.com¹⁴, the response in Canada has been different.

It is not surprising that there has been litigation in the US but not in Canada, since there is a profound difference in general in the incidence of civil litigation in each country. One indicator of this is that there are approximately twice as many lawyers per capita in the United States (1 lawyer per 263 residents) as in Canada (1 lawyer per 491 residents). However, in Canada, arguments have been raised that address sovereignty issues. Since all documents submitted to Turnitin.com are kept by the company and stored in servers in the United States, concerns have been raised about the use of this information, for example as a consequence of the Patriot Act.¹⁵

6. Conclusions

The authors have examined the perceived increase in the number of cases of plagiarism in the academy, and have noted differences in approaches to this issue in the United States and in Canada. We have also examined relevant university policies in both countries, and have argued for a greater reliance on the individual arbitrator and less on the possibly arbitrary action of anti-plagiarism software.

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² Colin Babin and Wayne Patterson, *Plagiarism: A Growing Concern for the Academic Community*, to appear.

³ JACOBELLIS v. OHIO, 378 U.S. 184 (1964) (June 22, 1964).

⁴ Alan M. Turing, *Computing machinery and intelligence*. *Mind*, 59, 433-460, 1950.

⁵ Babin and Patterson, *op. cit.*

⁶ Instructional Development Centre, Lakehead University, Thunder Bay, ON,
<http://idc.lakeheadu.ca/wp/?pg=14>.

⁷ Josephson Institute Center for Youth Ethics, *2008 Report Card on the Ethics of American Youth*, Los Angeles, CA, November 30, 2008.

⁸ Carolyn Brophy, *Professors are not racially targeting international students for plagiarism*, Ottawa Citizen, Ottawa, ON, November 21, 2008.

⁹ Jude Carroll and Jon Appleton, *Towards consistent penalty decisions for breaches of academic regulations in one UK university*, *International Journal for Educational Integrity*, vol. 1, no. 1, Adelaide, Australia, <http://www.ojs.unisa.edu.au/index.php/IJEI/article/viewFile/14/9>.

¹⁰ Babin and Patterson, *op. cit.*

¹¹ Aristotle. "Nicomachean Ethics." trans. Martin Oswald. Prentice Hall: New Jersey, 1999.

¹² iParadigms LLC, 1624 Franklin Street, 7th Floor, Oakland, CA 94612.

¹³ Babin and Patterson, *op. cit.*

¹⁴ Dennis Carter, *Judge: Turnitin.com doesn't violate copyright laws*, *eSchool News*, Thursday, April 17, 2008.

¹⁵ *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001*" ([Public Law Pub.L. 107-56](#)), Washington, DC 2001.