Editorial

From the History of Contract Cheating to the New Challenges of Artificial Intelligence: The Changing Landscape of Academic Integrity

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Abstract

We present the second issue of the fifth volume of the Canadian Perspectives on Academic Integrity (CPAI). This issue features the third invited historical article about contract cheating and three peer-reviewed articles that highlight two challenging issues within the field of academic integrity--mental health and artificial intelligence--and a study that explores the definition of academic misconduct, which is a persistent challenge in higher education.

Keywords: artificial intelligence generated text, Canada, contract cheating, definitions of misconduct, history, mental health

From the History of Contract Cheating to the New Challenges of Artificial Intelligence: The Changing Landscape of Academic Integrity

In this issue of the Canadian Perspectives on Academic Integrity, we are excited to feature the final article in a three-part series by invited contributor, Dr. Geoff E. Buerger, which was based on his dissertation describing the development of the contract cheating industry in the United States (US) and Canada (Buerger, 2002). In the first article in the series, Buerger (2021) provided details of the commercial contract cheating industry during the period 1930 to 1970 in the US. He described how journalists and student journalists investigated the industry and published various news stories to expose their lucrative operations so these companies could no longer work in the shadows. In the second article, Buerger (2022) described the attempts in three US jurisdictions to quash the industry. In this issue's article, Buerger (2023) concludes the series by describing how essay mills advertised in student newspaper publications and operated their businesses in Canada. Attempts were made by university administrators and government officials to reduce the activity of defrauding the education system, which have largely failed. As a

collection, Dr. Buerger's articles are useful for generating discussion about the contract cheating industry with students, faculty, administrators, and other higher education professionals.

One of the long-standing issues within the field of academic integrity and academic misconduct is the discrepancies in how individuals in different stakeholder groups in postsecondary education define the behaviours of academic misconduct. In "Cheating: It depends on how you define it", Jelenic and Kennette (2023) explored how students and faculty at a two-year college defined academic cheating using their own words and rated behaviours as cheating or not. The authors found that there was many similarities and differences in definitions provided by student and faculty groups. Perhaps not surprisingly, faculty articulated their definitions using more words. Jelenic and Kennette suggested that maturity was an important factor in understanding academic cheating. Thus, the lexicon of academic integrity and academic misconduct continues to be ill-defined for many stakeholders (e.g., students and faculty) within Canadian higher education.

The COVID-19 pandemic has had a great impact on students' physical and mental health, and has been implicated in the rise of academic misconduct occurring around the world. Eaton et al. (2023) conducted a rapid review to understand the literature surrounding the topic of academic integrity and student mental health and well-being more fully. Their search resulted in 46 articles suitable for analysis in which they discovered themes of negativity bias, differing definitions, paradigmatic tensions, external stressors, and mental well-being prior to incidents of academic misconduct. Eaton et al. challenge educators, researchers, administrators, and other higher education professionals to develop better ways to support postsecondary students.

The next frontier in the academic integrity and academic misconduct field is greater understanding of technology that produces text, images, and other deliverables that students may submit unchanged to gain credit. This is not new technology, but it is becoming more sophisticated and more easily accessible to students. It will also be less expensive and perhaps less risky to students to use artificial intelligence produced than to engage with contract cheating suppliers who have been known to blackmail and extort students. For this editorial, we attempted to use a headline generator to create a title using various combinations of the keywords (e.g., contract cheating, artificial intelligence, stress). All of the titles were inappropriate, for example, one of the suggestions was "The Joy, Comfort, and Stress-Reducing Power of Contract Cheating." This is not the message that we want to send to our readers.

Moya et al. (2023) presents a protocol for rapid scoping review of the academic integrity and artificial intelligence in higher education. Exploring the breadth of the articles at this space in time will help to identify boundaries of understanding of this emerging area. The scoping review will undoubtedly provide a meaningful contribution relevant to those within higher education who are excited, horrified, or feeling something in between given this quickly evolving technology.

The topics covered in this issue of the *Canadian Perspectives on Academic Integrity* provide insight into the types of conversations we are having on post-secondary campuses and the types of challenges that faculty and staff are grappling with, including mental health, advances in technology like artificial intelligence and the enduring question(s) about how we define and understand academic misconduct. This issue spans two calendar years, however, our next volume (Volume 6) will have two calls for submissions with issues being released in June and December. As always, we welcome your submissions whether a peer-reviewed article, practitioner pieces, book review, or position paper. Review the notes to authors for more information.

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Pens for Hire: Part 3

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Abstract

This is Part 3 of a three part invited article series examining the historical evolution of the contract cheating industry. Parts 1 and 2 were concerned chiefly with the emergence of the commercial trade in academic work in the United States and the varied responses it elicited in that country. This article discusses Canadian attempts to combat that phenomenon, and focusses on York University's actions against Custom Essay Service in the late 1980s. Part 3 concludes with a series of questions to encourage reflection and discussion with students or educators and practitioners.

Keywords: academic fraud, Canada, contract cheating, ghost writing, history, term paper mills

Pens for Hire: Part 3

The explosion of term paper mills around American college campuses in the early 1970s was mirrored by similar developments in Canada. Driven in part by the opportunity presented when universities began to transition away from grades based chiefly on examinations, the emergence of such entrepreneurs presented Canadian administrators with challenges similar to those faced by their colleagues in the United States (US).

Canadian Term Paper Mills

In the autumn of 1971, the fact that students were plagiarizing on a significant scale became a campus issue when *The Varsity,* the University of Toronto (U of T) student newspaper, editorialized that U of T should "[s]top all plagiarism by killing degrees" (Walkom, 1971)—a solution not out of step with the student radicalism of the period. The paper also ran a centerspread story on the issue which referred to three US companies, none of them yet known to operate in Toronto (Muir, 1971). If U of T officials hoped the emerging essay service industry was a strictly American phenomenon, however, they were soon disillusioned. Only two months later, flyers advertising a local enterprise ("PIRATE PAPERS WRITES ESSAYS FOR YOU") were found in the foyer of the U of T library, where an outraged official intercepted them and forwarded one to the Vice-President with the complaint, "I found a batch of these in our front hall today, and if more appear I shall have them destroyed! Isn't there anything the University can do about such people?" (University of Toronto Archives, 1972a).

In fact, the University could do little, and Pirate Papers seems to have flourished. In February, the firm was advertising for writers ("Classified Advertisements," 1972), and by June 1973 its flyers

listed both a local address where prospective clients could come to place their orders and a set schedule of fees (beginning at $4.00 a page for essays due in 14 days or more) (University of Toronto Archives, 1973). Nor was Pirate Papers the only game in town. In the autumn of 1972, Essay Services was advertising both for stock ("If you have top quality University Essays lying around collecting dust, they are worth money") and for staff ("If you are capable of writing a top university essay[,] call...") ("'Unclassified,'" 1972). In January 1973, Termpapers Service set up shop ("Termpapers Service Advertisement," 1973), and by March Termpapers Unlimited of Toronto had done the same ("Termpapers Unlimited of Toronto Advertisement," 1973).

Media attention also made term paper mills—or, to employ the phrase commonly used in the Canadian press at the time, essay banks—a public issue in Canada. Although Pirate Papers was probably all but unknown outside student circles, the declared intention of American term paper mills to expand into Canada placed the issue of purchased essays on the agenda of the Council of Ontario Universities (COU). The issue was taken up at the organization's first meeting of 1972:

> While recognizing that many faculties, departments and individual teachers have developed methods for detecting plagiarism, COU decided to seek some legal opinion on the issue. The Council of Deans of Ontario Faculties of Law, an affiliate of COU, has been asked to consider the implications of business enterprises preparing or obtaining manuscripts analogous to term papers, essays, or theses for sale to Ontario university students, and to recommend to COU appropriate action.
>
> It is hoped that a combination of legal regulations and faculty vigilance will effectively discourage the expansion of the term paper business (University of Toronto Archives, 1972b).

It seems likely that the private member's bill introduced by Albert Roy, Member of Provincial Parliament (MPP) in the Canadian Province of Ontario, at Queen's Park four months later was the result of lobbying by the COU, but the exact nature of any link between them cannot be reconstructed.

Sometime after Roy's bill died on the paper in June 1972, the COU struck a Special Committee on the Purchase of Term Papers, which in due course issued a report "on the extent and seriousness of the problem" ("Undated Letter circa 1974 from Fraser Cowley, Chairman, Committee on Purchase of Term Papers, to C. Grant Clarke, Secretary of the Council of Ontario Universities. York University Archives, 1977-013/036, 'COU - Term Paper Business, 1972, 1975,'" 1974). For some reason, however, the COU did not distribute the committee's findings to its constituent institutions, and the issue seemed to die in their filing cabinets (if indeed it made it that far; today the COU claims to know nothing of this general issue, that specific meeting, or their own special committee [L. Sanson, personal communication, August 31, 1999]).

The Ontario legislature made no further attempt to curb the contract cheating industry, and the term paper mills flourished. In 1975 incoming U of T students were given the inside scoop about

pirate essays—including the wide range of response from the "discreet D" given by a professor who is "embarassed [sic] to have caught you" to "university litigation" instigated by less merciful instructors, and the rumour that "too many Profs and Grad Students are writing for the shady services" to make patronizing those services altogether safe ("Pirate Essays," 1975, pp. 68–69). In the autumn of 1975, advertisements for both a custom essay service and a catalogue company graced the "unclassifieds" in *The Varsity*. "Institutional Research" offered custom essays; the catalogue company was "Essay Services" ("Canada's largest") ("'unclassified,'" 1975). One professor wrote a letter to the editor of that paper urging students to "fink on essay banks!" (Drake, 1975, p. 4). A 1976 announcement that the U of T would seek judicial or legislative remedy (Woodcock, 1976) came to nothing, and the traffic in academic assignments continued unabated in Canada, despite modest setbacks such as bans on advertisements in student publications. In 1975-76, for example, *The Varsity,* the U of T student newspaper, decided not to accept essay bank advertising in the student newspapers ("Student Newspaper at U of T Bans Ads Offering Essay Help," 1975). Notwithstanding the *Globe and Mail's* rather premature report announcing the demise of essay banks in 1978 ("How's Essay Business? Dying at $5 a Page," 1978), by the mid-1980s solicitation of business on campus by such enterprises had become sufficiently blatant to move York University to inform operators by registered mail that their flyers were prohibited on campus. Custom Essay Service (CES), of which more below, refused delivery of such a letter postmarked November 12, 1985 (M. J. Webber, October 25, 1989).

York's response to the commercial trade in term papers is of particular interest because York played a leading role in the attempt to put the providers out of business in 1989. In addition to banning advertising on campus, university officials formalized their efforts to keep such services from exploiting York students by issuing an *ad hoc* policy in November 1987 (York University Archives, 1987). Subsequently they received an opinion from the university's solicitors that the purchase of fraudulent work might be a violation of the Criminal Code, and planted a front-page story to that effect in the student newspaper (Vaswani, 1988).

Within three weeks, Associate Dean of Students Mark Webber was contacted by a professor who suspected that one of his students had submitted a purchased paper. As this incident worked its way through the established procedures of the university, the student initially insisted that he had written the essay himself, but eventually—faced with an increasing number of inexplicable inconsistencies between the essay in question and others he had submitted—he admitted having purchased the paper from CES. This student gave Dean Webber an inside view of the CES operation: a student ordering a paper would give CES the details of the assignment and a 50% down payment, with the balance due on delivery. The company would farm the assignment out to one of its writers, who received half the fee. If the essay did not earn at least a 'C,' CES would offer to upgrade it—for an additional fee. The essay would be available within two weeks (M. J. Webber, October 25, 1989).

The internal workings of CES were revealed in greater detail in an article for *Harper's* (Witherspoon, 1995). Busy season is from October to May, although January—the lull between

first semester due dates and second semester assignments—tends to be slow. At peak times the writers, an eclectic collection of unemployed graduates and former academics (some working in Canada illegally), wait for the owners to assign papers according to their respective "specialties" while customers queue up to place their orders. Although CES scorned to sell off-the-rack essays and farmed out each assignment individually, during crush periods the writers themselves were faced with the temptation to recycle work they had previously prepared for the same course. The sliding scale of fees in 1994 demanded $20, $22, or $24 per page, depending upon the level of the course and the difficulty of the topic, with an additional "ding," or fee, for each order unaccompanied by the books required to write the paper. In addition to walk-in custom, business also comes in from other Canadian cities and the United States as well. Witherspoon (1995) describes in dreary detail the cranking out, during endless all-nighters, of the required number of pages on subjects ranging from the drab to the obscure, and offers compelling evidence that "academic prostitution"—Witherspoon's own characterization of her work—is as tawdry and degrading as its sex-trade namesake.

At the time, CES had been in business for about 12 years, and employed roughly 40 writers. CES was selected as the object of the action both because it was the largest and most visible operation in Toronto at the time and because the student informant had been a customer.

Its prominence made it an obvious target, but it was the appearance of an informant that gave York the means to seek legal action. The university initially approached the Fraud Division of the Metropolitan Toronto Police with a request to investigate CES, but the officers who came to discuss the question were unimpressed and uncooperative, and declined to pursue the matter. The university then turned to attorney Neil Kosloff, who approached Crown Attorney Steven Leggett, who in turn convinced 31 Division that a prosecution on the grounds of uttering forged documents had merit. The case was assigned to Detective Constables Brian Dickson and Graham Hanlon, who had worked with York University before. Dickson and Hanlon had done the police work on "The Fab Four," a quartet of students who had suborned a janitor for keys to professors' offices and had been selling advance copies of examinations (Dundas, 1988). These men met at York in July 1988 to discuss how to proceed (*"Outline of investigation utter forged documents" (police notes)*, n.d.).

After one false start designed around an attempt to win over another potential informant, a sting operation was devised (*"Outline of investigation utter forged documents" (police notes)*, n.d.). On March 22, 1989 (a day when "the place was full"; Notes taken by Mark J. Webber of verbal report by Brian Dickson, 29 March 1989), Constable Suzanne Beauchamp, a recent university graduate, placed an order with CES requesting a paper putatively for Sociology 1010.06A—a course which she had taken and could discuss credibly with the company. The subject of the 12-page paper was a sociological overview of Michael Ondaatje's novel *In the Skin of a Lion.* The job was assigned to "Buckley," one of the CES "stable of hacks" (Witherspoon, 1995, p. 50), who was instructed to answer five questions on the book from an attached sheet given out by the professor. Beauchamp also provided a copy of the text (K. Ishwaran, *Sociology: An Introduction*),

and was not "dinged." The cost per page was $17 ("15" is scribbled out on the order sheet); Beauchamp put down a deposit of $140 and paid the $115 balance on delivery of the paper. A photocopy of Beauchamp's order form is in the notebook kept by Mark J. Webber. York University provided the money (Webber, 1989).

On April 4, Beauchamp picked up the essay, which was then used to obtain a Criminal Code search warrant. The next day, April 5, Dickson and Hanlon, accompanied by uniformed officers and Webber, raided the CES premises at 4 Collier Street and seized "boxes and boxes and boxes" of term papers and, more significantly, order forms (*Interview with Sergeant Brian Dickson, 21 Division*, 1999).

Immediately after the raid the police issued a press release to maximize public exposure (Webber, 1989). Calls came in from all over—from persons in a broad range of prestigious professions—enquiring about the dates of the paperwork seized (*Interview with Sergeant Brian Dickson, 21 Division*, 1999). In fact, the documents removed by the police encompassed only orders dated from January to April—a term's worth of business. The approximately 530 forms represented a three-month gross of $98,000, half of which was the proprietors' cut (*Interview with Sergeant Brian Dickson, 21 Division*, 1999).

As part of the operation, universities across Ontario were asked to 'freeze' (i.e., hold pending police examination, rather than return to students) all essays submitted for credit during this period, and Dickson, Hanlon and Webber spent the next few weeks working to identify the students who had submitted the seized forms. By May this work was sufficiently advanced to call a meeting attended by representatives of the COU's member institutions, at which each was given two lists: one of the CES customers who could be identified as their students, and a second of the "unknowns" that each institution was asked to scrutinize in the hope of identification. Universities were asked to compare the seized essays with assignments submitted by the students on the lists. McMaster University's list, for example, had ten names, while the university was able to identify two more from the roster of "unknowns" (Humphreys, 1989).

On May 29, 1989, the proprietors of CES, Derek Robinson Sim and Marilyn Elizabeth Sim, were charged with one count of conspiracy to utter forged documents and seven counts of uttering forged documents. Leggett prosecuted the case for the Crown. The Sims, who claimed to have been victimized by "a questionable search and seizure, on a trumped-up search warrant" as part of a "McCarthy-type witch-hunt" (Humphreys, 1989, p. 1), hired Brian Fox to represent them. Sim also trotted out the predictable rationalization that "[t]he Prime Minister of Canada has a professional speech writer" (Humphreys, 1989, p. 1), and also invoked the specious parallel between his product and *Coles Notes.* This interview is one of the Sims' few recorded comments on the prosecution of CES.

The case put together by the police seemed to be a strong one. Dickson and Hanlon were prepared to bring forward 24 witnesses, including eight students who had purchased essays,

university faculty who had received them, and even a disaffected former CES writer. In addition, they adduced exact matches between the essays which had been ordered and those which were submitted, and felt that they had accumulated a convincing preponderance of evidence. In the event, however, the lawyers agreed to present a statement of fact, and neither the witnesses nor the painstakingly-assembled written evidence were brought before the judge. A word about sources: Leggett is dead, and Court documents more than six years old have been destroyed. What remains are the notes and recollections of the detectives and university officials involved, and it is from these that this article has been written.

The first of the seven charges, conspiracy to utter forged documents, alleged that "[d]uring the months of January 1989 to April 1989, the two accused before the Court did conspire with each other, the students purchasing the essays and the writers who completed the forged essays in order for the student to fraudulently obtain a credit in their course and ultimately a university degree" (synopsis of Charge #1, *R. v Sim.* B. Fox, personal communication, n.d). The other six complaints were individual charges of uttering a forged document, specifying essays commissioned on January 9 and 24, February 13 and 28, and March 8 and 10, 1989, all of which were submitted as received, and as the students' own work, to their respective professors.

The case was heard by Judge George E. Carter in 303 Court at 1000 Finch Avenue West. The Crown's case was based in part on the provision of Section 366(b) of the Criminal Code of Canada, which specifies that forgery has been committed when by a false document "a person should be induced, by the belief that it is genuine, to do or refrain from doing" something (quoted in B. Fox, "Uttering a Forged Document: R. v Sim"). In *R. v Sim* Leggett argued that professors had been induced to award credit for work produced by CES in the belief that it was genuine student work. Crown Attorney Stephen Leggett's arguments were made orally, and no written record of them survives. This rendering of the Crown case has been extrapolated from notes made during interviews with Brian Dickson, Graham Hanlon, and Mark Webber, and from the written submissions of defence barrister Brian Fox.

Fox responded by rejecting Leggett's contention that these essays were false documents, which must be "false in some material particular" according to Section 321(b). Fox maintained that, on the basis of the language in this Section, "[authorship] of a university essay is not a material particular" (B. Fox, "Uttering a Forged Document: R. v Sim", written submission to the court). He also argued that the essays did not meet the test of forgery under Section 321(c), for which the essays would have had to be intended as pass as the work of someone other than "the actual author *or the one under whose authority the author was working"* [emphasis added] (B. Fox, "Uttering a Forged Document: R. v Sim", written submission to the court).

In addition, the prosecution contended that the Sims were "parties to the offence" of uttering forged documents, which under the Criminal Code requires a less exacting standard of proof than the principal charge. During his oral arguments, however, Leggett did not press the issue, and it may be that Judge Carter failed to appreciate the point (*Interview with Sergeant Brian Dickson, 21*

Division, 1999). Fox did not argue that the Sims could not be convicted of forgery because any forgery was rather solely the work of the student. Instead, he asserted that the activity in question did not constitute uttering. The students hired the accused's business to produce essays on their behalf and then used essays as their own work. This may be a breach of academic regulations, but it is no more a crime than the act of a politician in hiring a speech writer to compose a speech, or the act of a senior lawyer who hires a junior to write a factum on his behalf for the Court of Appeal, but affixes his own signature (B. Fox, "Uttering a Forged Document: R. v Sim", written submission to the court).

Fox's argument was significant because the prosecution's contention that the Sims were parties to the offence could have no force if no offence had been committed by anyone.

On September 11, 1990, Judge Carter dismissed the charges, holding that there was no evidence of intent to commit a criminal act (Schmidt, 1998). Carter's actual decision does not survive. Fox claims that "the judge ruled that the service was perfectly legal" (B. A. Fox, personal communication, September 3, 1999), which is by no means the same thing. If Carter's decision was disappointing, the denouement was even more so. Not all institutions had shared York's enthusiasm for public prosecution of academic malefactors, and the COU was cool to the idea of continued action. On the prosecution side, although Leggett approached the Attorney General for a preferred indictment—and even received the support of the Crown Law Office, which believed that Carter had erred in dismissing the uttering charges—the sheer volume of cases requiring immediate attention in the wake of the Askov ruling led to the CES prosecution being put on the back burner, and abandoned there. The landmark Askov ruling (*R. v. Askov, 74 D.L.R. (4th) 355(S.C.C.)*, n.d.) resulted in the dismissal of charges against hundreds of defendants on the grounds that the Crown had violated their rights by taking too long to bring the cases to trial. A decade later CES was still advertising their wares on the bulletin boards of York University (Galt, 1999).

If the proprietors of CES Service escaped without penalty, the same cannot be said for their customers. York University alone prosecuted approximately 100 of their students, who explained themselves as best they could to Shirley Katz, the Associate Dean responsible for bringing their cases to the Academic Hearing Committee:

> Often, they cited the pressure caused by some combination of workload, and personal and parental problems. Some said they had other priorities like sports or a job outside the University. Some told me they saw nothing wrong in paying someone to do "research" or a "model essay" for them. Almost all told me that "everybody is doing it" (Katz, 1989).

All of the accused students were found guilty and assigned sanctions "ranging from 0 in the assignment for the offense of attempting to purchase an essay to suspension from the University for 10 years for multiple completed offenses" (Katz, 1972). The greatest proportion—76—were in the Faculty of Arts, of whom 41 were charged with one count of cheating and the remainder

with multiple offences (among whom was one who ordered a dozen essays, for herself and her friends) (Katz, 1972). This last was not unique; one CES writer told a major paper that some students "treat... buying [their work] as just another added cost—$300 for the course, $200 for the books, and $500 for the essays. It's just seen as one more financial burden" (anonymous CES writer, quoted in Murray & Gould, 1989). At least in Ontario, this elicited bemused reflections about student concern over rising tuition fees (Crawford, 1989).

Of particular interest are the circumstances which made this operation possible. A necessary precondition was the existence of an administrative willingness to commit university resources to the struggle. Starting from the premise that "an offence against the integrity of the pursuit of knowledge strikes a blow against the foundation of the institution," York recognized that, taken to its logical end, the routine and widespread purchase of term papers and hiring of examination surrogates would reduce the university to a mere diploma mill (Interview with Dalhousie University President Tom Traves [who was Dean of Students at York at the time of the CES investigation], December 13, 1999).

The decision to go to extraordinary lengths to combat this was made not to close down a single supplier, but to send a message to York's two core constituencies. The expenditure of time and money was meant to eliminate faculty fatalism by demonstrating the administration's commitment to integrity and willingness to support professors who took a stand. Publicizing the issue in such dramatic fashion was also meant to make students aware that the university considered purchased work a serious issue, and make them "less inclined to view plagiarism as the equivalent of a childish prank" (Interview with T. Traves, December 13, 1999).

Webber and Marla Chodak, the executors of York's institutional commitment, were determined officials who believed that the defense of academic integrity was central to the university's mission. Equally important, they enjoyed the unqualified support of Dean Tom Traves and President Harry Arthurs, and were empowered to take whatever independent action was required to address the problem (Interview with M. Webber & M. Chodak, August 20, 1999). While they enjoyed tremendous operational discretion, however, Webber and Chodak were careful both to keep key administrative offices fully informed, and to involve interested faculty members in the investigation. In short, York entrusted its institutional commitment to capable personnel who were determined to carry out an extended campaign against an amoral external adversary.

For their part, the two police officers assigned to the case were aware that they were breaking new legal ground, and became personally invested in seeing the job through. They too enjoyed the support of their own immediate superiors, and, like their partners in the Dean's office, were prepared to be thorough and patient. Most important of all, Dickson and Hanlon had the unqualified trust and active support of the university (they had handled York's 1988 stolen-examination ring case, and during that investigation established an exceptionally close working relationship with the university)—to the point where York allowed them considerable latitude to

obtain the necessary student testimony (Interviews with B. Dickson, August 23, 1999, and G. Hanlon, August 22, 1999). In short, York University and 31 Division acted in concert throughout the investigation, which might well be cited as an example of optimal cooperation between large, hierarchical, public institutions.

Their adversary was also well-suited for a test-case. With ten years in the trade, a prominent location adjacent to the Metro Toronto Research Library, and a high-volume business, CES presented an obvious target. CES was also over-confident in its operations. They advertised widely, and took few steps to guard against such a contingency as the March 1989 raid. The Sims apparently believed that their business was legally untouchable, and scorned to adopt any safeguards other than stamping their products "for research purposes only" after York's declaration of war in February 1988.

For all those apparent preconditions for success, the sting operation and resulting prosecution of the Sims failed to establish a precedent, or even to close the doors of CES for long. To understand why, it is instructive to compare this case with other attempts to defend academic integrity by attacking outside sources of corruption.

The contrasts between the CES case and those of the Madison, Wisconsin term paper mills seventeen years earlier are revealing. From the first newspaper report to the final decision of the Department of Agriculture the University of Wisconsin was reactive, and cautiously content to follow the lead of the Attorney General in addressing the activities of local term paper mills. York University, on the other hand, was thoroughly proactive, initiating the investigation out of institutional concern rather than public pressure and facilitating the prosecution at every stage. Wisconsin's disciplinary system was unequal to the task of processing so many cases, and that university was apparently content to deal with their students in a helter-skelter, rather superficial manner. York's statement on academic honesty was more sophisticated and its disciplinary system more fully developed, and that university applied the full rigor of its institutional due process to every individual case—even to the point of contesting one appeal for two years in the provincial courts (Katz, 1972).

Even their visions of what was at stake were profoundly different. At Wisconsin, the Dean of Students clearly hoped that the problem would go away, and seemed content to conclude that it had when local entrepreneurs closed up shop. At York, Webber, Chodak, and Katz had no illusions that traffickers in academic assignments would prove easy to discourage, and bent their efforts toward achieving a precedent which might affect the eradication of Toronto's term paper mills root and branch. In short, Wisconsin stumbled on to the issue by accident and was glad to declare victory and move on as soon as possible, while York was determined to put an end to the problem once and for all. Given these apparently telling differences, why was Wisconsin ultimately more successful than York in addressing the phenomenon of term paper mills?

Setting aside obvious disparities of time and place, the key difference was one of legal strategy.

York's activist approach sought a judicial decision, which failed when a judge who saw only a fraction of the evidence in the case ruled it insufficient to meet the standard of proof required for a criminal conviction. Wisconsin's more passive posture, on the other hand, relied on the apparatus of administrative law, through which term paper mills could be ordered to cease and desist without having to mount an expensive, time-consuming and lengthy prosecution. Administrative decisions can be challenged in court, but to do so would require the term paper mills to become plaintiffs and assume the burden of proof in a legal action fought on the government agency's terms. In the absence of legislatures willing to enact ordinances specifically prohibiting the activity of term paper mills, administrative action may provide the best legal recourse. If nothing else, a large institution which has lawyers on staff can drive small operators out of business through the sheer press of litigation.

Judicial prosecution can succeed, as Boston University demonstrated in 1972. The key difference between the B.U. and York cases is that by pursuing the matter as a tort claim the former kept control of the process while York, having chosen instead to make a criminal complaint, was at the mercy of decisions made in a prosecutor's office. This underscores the lesson that universities cannot rely on external agencies to manage an essentially academic concern. Legal action must not only be set in motion by educators, but directed by them as well. Whether external support is administrative (as in Wisconsin), judicial (as in Massachusetts), or legislative (as in New York) in character, universities must supply vigilance, leadership and tenacity in order to capitalize on that backing. Even with both legal precedents and favourable legislation in place in Massachusetts, it was Boston University rather than the Commonwealth which (successfully) prosecuted two more term paper mills in 1981 (*Trustees of Boston University v. Minute Research Co., No. 10908*, 1981; *Trustees of Boston University v. Scherer, No. 27746*, 1981).

All that said, and quite apart from the merits of the case against CES, York University's admirable effort is likely to prove one of the last attempts to leverage state action as an instrument against contract cheating. The core issue has become one of jurisdiction: in the Massachusetts, New York, and Wisconsin cases discussed in parts one and two, and in the Ontario case presented here, the businesses in question were chiefly local, and thus subject to administrative, judicial, and legislative authority. In the age of the World Wide Web, however, the playing field has changed, and universities in Canada are unable to seek redress against entities sited in the United States, India, or elsewhere.

Conclusion

The emergence of the Internet, which exponentially increased both the availability of material which can be purchased and the speed of its delivery, suggests that reliance on external agencies may already have become moot. Each of the approaches discussed in this series is predicated on jurisdiction, and to date neither administrative, judicial, nor legislative initiatives have succeeded in establishing authority over the World Wide Web. The proliferation of online term paper

merchants beyond Canadian jurisdiction, appealing to a potentially unlimited global market and in a climate of fundamentally unfettered trade, requires universities to shift strategy. In the battle against the commercial trade in academic assignments, institutions will need to develop new weapons appropriate to the changing battlefield.

Food for Thought: Questions for Reflection

- Is there any point in targeting commercial sources of contract cheating material? Should educators and institutions instead place the onus of responsibility entirely on students who purchase such products?
- York University, supported by the Metropolitan Toronto Police, appeared to have every advantage and to do everything right in their attempt to shut down Custom Essay Service. Was their failure simply the result of having a judge who didn't "get it" and a prosecutor who chose not to pursue the matter, or did their case actually have a fatal flaw from the start?
- Has the impact of contract cheating become so ubiquitous that essays and similar assignments can no longer be considered credible measures of student achievement? Is it time to consider a radically different paradigm of evaluation?

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Cheating: It depends how you define it

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Abstract

Cheating in academia is defined multidimensionally and might include dishonesty, fraud, stealing, and unauthorized use. This behaviour appears to be on the rise in higher education, though it may be somewhat subjective. Beyond the ethical issue of cheating, inadequately learned skills and unqualified practitioners put lives at risk (e.g., medicine, engineering), as well as the institution's reputation and integrity in producing proficient graduates. We asked Canadian students and faculty from a two-year college to define academic cheating in their own words and rate a number of behaviours to indicate their perception of whether the behaviour should be considered cheating or not. Overall, there was a great overlap between the themes evoked in students 'and faculty's definitions of cheating. Differences between students 'and faculty's ages might suggest a different degree of moral reasoning which may have impacted the responses. This study further contributes to knowledge about cheating because we surveyed college students (rather than university students), which are greatly under-represented in the literature.

Keywords: Canada, cheating, college, definition, faculty, integrity, students

Cheating: It depends how you define it

Cheating. According to the University of British Columbia's website, cheating is defined as: "i) receiving or giving assistance for an individual assessment activity; ii) use or possession in an examination of any materials (including devices) other than those permitted by the examiner; iii) Impersonating a student to write or submit an assignment/exam." (University of British Columbia, n.d.). Or it "involves unauthorized use of information, materials, devices, sources or practices in completing academic activities" (Northern Illinois University, n.d.). And another definition describes cheating, "as fraud, deceit, or dishonesty in an academic assignment…use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question" (Walden University, n.d.). The latter definition referred to *plagiarism* and academic cheating which is the focus of this paper: "to steal and pass off (the ideas or words of another) as one's own; to use (another's production) without crediting the source; to commit literary theft; to present as new and original an idea or product derived from an existing source (Merriam-Webster, n.d). Although we all feel we have a sense of what cheating is (and isn't), Eaton (2017) points to the lack of consistency across Canadian institutions with their policies and definitions surrounding plagiarism, and especially as it relates to contract

cheating which is defined as the outsourcing of a student's academic work to another (Stoesz et al., 2019). Interested readers may refer to the University of Calgary's Taylor Institute for Teaching and Learning for a more nuanced explanation of various terms used to speak about honest and dishonest academic behaviour (Eaton, 2022).

Viewed sociologically, Bowers (1964) believed cheating was a type of deviance; diverging from expected norms. After reading multiple definitions from various outlets, one thing was clear: Cheating is wrong. If we asked random people whether stealing is wrong, the response would be an astounding "yes." If that is so, then why do we have such a preponderance of *stealing* in academia? In ancient China, "…the penalty for being caught cheating, or assisting in it, was death" (Jackson et al., 2002, p. 1031). We hypothesize the issue lies in the definition. Not the basic notion of cheating as wrong, rather the context and subjective perception: "Is *this* really cheating?" Miller and Izsak (2017) presented the idea that using knowledge that was "unsanctioned" was academic dishonesty. *Sanctioned* is something authorized, approved, or allowed (dictionary.com), so the opposite of that. Regardless of how comprehensive a definition seems, details are *not* explicitly mentioned.

Looking at plagiarism, what exactly is *passing off words as one s own* really mean? Am I really claiming the words I used are mine, or am I using words and/or an idea that I agree with and that fit into my paper? It is complicated, and clear instructions of *everything* that is not allowed was *not* covered. Students have presented obviously plagiarized papers and denied it claiming things like, "I found it and typed it out, so they are *my* words." According to Pincus and Schmelkin (2003), there are "…inconsistencies in the definition of academically dishonest behaviours and the lack of consensus and general understanding of academic dishonesty among all members of the campus community" (p. 196) and those (definitions) that do exist are, "broad and ambiguous" (p. 197). The authors went on to say certain behaviours are obvious to all: e.g., copying of another person's exam, while collaboration on homework and/or getting help from a tutor, are not as definitive (Pincus & Schmelkin, 2003).

Bowers (1964) conducted the largest scale study ever on cheating; over 5000 students at 99 schools. Behaviours ranged from plagiarism type issues: copying without footnotes, and referencing sources not in paper, to "advantage" type: getting answers from students who already took the test, to outright dishonesty: group work on individual assignments, submitting someone else's work, copying from someone during a test, and using materials unauthorized by the instructor (e.g., crib notes). With the significant increase in technological advancements, cheating has gained traction and the methods reflect the present ethos. A recent study by Lancaster (2019) looked at contract cheating or using a third-party to complete a student's work for them (Clarke & Lancaster, 2006), and how social media advertises and markets their services. Ahmed (2018) studied the possibility of culture (collectivist vs. individualistic) playing a role in cheating behaviour, whereas Kolker (2012) boldly labeled it "a new culture of sharing" and rationalized its use by stating, "Wall Street titans, politicians, and other high visibility

leaders…cheat [and]…get away with it" (p. 2).

Do role models dictate our behaviours and determine potential actions? According to Gentina et al. (2017) conventional wisdom suggests delinquency can be curbed through the presence of strong social bonds, however, their research identified "counter intuitive" results. In their study of over 900 French and Chinese teenagers (M_{age} = 15.88 years), they found parental attachment and moral values diminish cheating among French teens, whereas all four social bonds (parental attachment, academic commitment, peer involvement, and moral values) contributed to cheating among Chinese adolescents, suggesting cultural differences. Martin (2012) found academic dishonesty was more prevalent in individualistic cultures (e.g., Western), whereas in Eastern cultures it was ignorance of it (Ramzan et al., 2012). Is being popular more individualistic or collectivistic? Gentina et al. (2017) found that popularity had a profound effect on cheating behaviour. They observed that popular French girls cheated in school and unpopular Chinese boys also engaged in cheating behaviour.

Does the basis for cheating lie in the sexes? According to research, males were much more likely to commit acts of academic dishonesty, and much more likely to find it acceptable (Hensley et al., 2013; Thomas, 2017; Yang, 2012). Interestingly, women also tended to deny being guilty of academic dishonesty more than their male colleagues (Witmer & Johansson, 2015). And Sendağ et al. (2012) noticed one's major (e.g., hard sciences) was more indicative of instances of cheating than other majors (e.g., social sciences major). Although more men in engineering would support this as an explanation, another explanation could that there are differences in the ease of cheating across disciplines based on the types of evaluations most prevalent in those courses (e.g., it may be easier to cheat on a math assignment because there is only one correct answer whereas an essay in a psychology course may create additional challenges for students who attempt to cheat). Alarmingly, 97% of *medical* students "willingly admitted" to cheating (Taradi et al., 2012) which arguably gives the impression your physician is an unqualified, indefensible cheat who is likely to kill you on the operating table.

Why is Cheating so Serious?

According to Miller and Izsak (2017), "excellence and achievement" are highly regarded in higher education, and cheating weakens the outcome. Echoing McCabe and Trevino (1997), students violated rules to accomplish a goal, thus devaluing the diploma and/or degree. Brimble and Stevenson-Clarke (2015) stated the goal of learning institutions was to produce qualified and technically skilled graduates who present with high degrees of honesty, ethics, and responsibility, and are committed to serving society. If students cheat, this becomes moot, and insinuates their lack of integrity may continue into the future: once a cheater, always a cheater (Lupton et al., 2010). Despite the significant rise in recent decades of elementary school children being rewarded with participation ribbons rather than more merit-based rewards, we do live in an increasingly competitive society: entry into the best schools, the best companies, getting the best

jobs, and so on. One may wonder if we are not becoming more performance-based rather than knowledge-based. Nonis and Swift (2001) observed a trend whereby students saw schools as being solely "credential granting bodies" rather than environments where actual learning takes place. The authors argued this led to an "us" versus "them" mentality where the students rationalized cheating by blaming poor teaching. an abundance of assigned work, and unreasonably high expectations by faculty as reasons to cheat and even things out. Vandehey et al. (2007) explained this phenomenon as "neutralizing" and equated it to rationalizations and/or defense mechanism that normalized the behaviour: "I needed to maintain my enrolment in the program, so you can't really blame me for cheating." With this rationale, cheaters would get ahead, honest students would be left behind, and society would become accepting of deceitful behaviour. Barbaranelli et al. (2018) suggested cheating would destroy the labour market by admitting unskilled workers with invalid credentials. In the introduction of their seminal book on academic cheating, Anderman and Murdock (2007) summarized the role of classroom competition in the following way: "Competition is perhaps the single most toxic ingredient in a classroom, and it is also a reliable predictor of cheating" (p. XIII). Yet, Orosz et al. (2013) found that competition and extrinsic motivation (e.g., grades) are not reliable at predicting cheating.

Wotring (2007) believed an operational definition was needed to address limitations in understanding social attitudes and behaviours regarding cheating. She defined it as, "fraudulent behaviour involving some form of deception in which one's own academic efforts or the academic efforts of others are misrepresented" (p. 15). Wotring (2007) mentioned UC Irvine's policy on dishonesty and how it clearly differentiated between the types:

> cheating (defined as copying from others during an examination or using notes during an exam) from dishonest conduct (defined as stealing an exam or answer key from an instructor, or changing academic records without sanction), plagiarism (defined as passing off another's work as one's own, or failure to credit creative productions), and collusion (defined as knowingly or intentionally helping another to cheat or plagiarize) (p. 20).

Burrus et al. (2007) found students do not understand what constitutes cheating, and Higbee and Thomas (2002) noticed discrepancies between students 'and faculty's definitions. Gehring and Pavela (1994) mentioned "intentionality" and how the perpetrator plays a voluntary role in the dishonest behaviour. Alzahrani and colleagues (2012) looked at *literal* and *intelligent* plagiarism, differentiating types: changing words (i.e., using synonyms) and/or word order, adjusting text length, and so on. While they believed "cheating" was too narrow a term and focused on test impropriety, we see it as inclusive for all behaviours possessing an inherent lack of ethics, fairness, and honesty. Wideman (2011) also suggested an operational definition be established, however, they found instructors seldom explicitly defined cheating as they believed it to be a universally understood construct. Considering the pervasive nature of cheating, this is definitely not the case. Peters et al. (2019) interviewed professors to see whether the problem of

plagiarism was in its instruction. The results identified seven different types of professors; different in regards to how plagiarism was addressed. Students are either fortunate to get an "Ambassador" professor who "deliberately includes activities…to help students…write their assignments with integrity" (p. 6), or they get stuck with the "Detached" professor "who takes no responsibility for the teaching of academic integrity" because, "I do not have time for that" (p. 7). That is, in some instances, professors may not feel it is their responsibility to instruct students about academic integrity and plagiarism, and that could be an obstacle to students ' understanding of these behaviours because the same information is not being repeated across all of their classes, or they may be receiving inconsistent messaging.

Why do People Cheat?

Thomas (2017) found the level/year of study, academic major, and gender directly impacted on the deviant behavior, but it is clear that cheating is serious. Raines et al. (2011) believed perception; the organization and interpretation of experiences in the brain led to understanding and belief, leading to the likelihood, or not, of committing the behaviour. According to Eisenberg (2004) everyone lies, "Some lie in cards, some about their age, others in taxes, yet others in their personal relations" (p. 163), at all education levels, and considering most research is self-report, the number is underestimated. Eisenberg (2004) discovered most cheaters were in Kohlberg's (1973) fourth stage of moral judgement or higher: They would be considered "good" people morally. So, if it is not bad people doing it, what is the reason most people cheat?

Jones (2011) interviewed business communication students and revealed the main reasons for cheating were: grades, procrastination, and being too busy. Iberahim et al.'s (2013), results showed grades, difficulty of task, and inadequate preparation to be the least likely reasons to cheat, while pressure from friends and the material being irrelevant scoring very high on the scale; the "lecturer does NOT mind the behaviour" was the number one reason given for students 'cheating. Participants claimed that instructors who did not enforce academic integrity standards actually encouraged cheating and rationalized their behavior by claiming that the teacher did not care or that everybody cheats anyways. (Whitley & Keith-Spiegel, 2002). Students with a mastery versus performance approach towards goals perceived their emotions differently from those who did not possess these characteristics (Putwain et al., 2013; Vassiou et al., 2016). In addition, the amount of effort a student is willing to exert academically has a strong influence on achievement emotions as well (Tempelaar et al., 2012). Lastly, if students value grades then grades can serve as a predictor for outcome-focused emotions such as joy, hope, or pride (Pekrun et al., 2007; Putwain et al., 2013).

The Present Study

Based on the literature described, we wondered whether a subjective definition of cheating and situational rationalization might lead to academic dishonesty. As reviewed, cheating is common

in education, with studies showing incidents rates ranging from 30-90%. We think the definition of cheating can help to explain some of the reasons for this. Students have their own subjective definition of cheating and use this in context- and content-specific situations to vindicate dishonest behaviour. The purpose of this study was to get information about how students and faculty define cheating (broadly defined) in an academic context, including which behaviour(s) they consider to be cheating and which they do not. We also wondered whether the students ' definitions would be consistent with their perceptions of which behaviours constituted cheating. Finally, we wanted to see whether students and faculty perceived the same items to be cheating. This information may be used to better understand why students cheat and how we can prevent it from happening.

Method

Participants

The study was conducted at a two-year college in Ontario. Both students (n = 15) and faculty (n = 10) responded to the online survey about cheating in academia. For students, most of the respondents were female (87%) and aged between 18 and 20 years old (60%). Almost half began their current studies directly from high school the previous year (47%). Of the faculty respondents, 60% were male, and half had been teaching for 5-10 years, with an additional 30% having been professors for longer than 10 years. We did not collect any additional demographic information from the faculty sample because those variables did not relate to any hypotheses and would significantly increase the risk that we could identify our colleagues 'responses.

Materials and Procedure

This research was approved by the college's Research Ethics Board. Student participants were recruited through the college email system with a posted invitation followed by a reminder approximately one week via the Announcement feature on the course site by the course instructors. Participants were given bonus marks for participating in the study, and those who chose not to participate were given an alternative writing option to earn these bonus points (although no student chose to complete the alternate writing activity). Faculty were recruited via email by the researchers and were not compensated.

The questionnaire was made up of two sections. In the first section, participants were asked to define cheating in an academic context. In the second section, they were provided with a number of scenarios and were asked to indicate whether the behaviour was considered cheating by means of a ten-point Likert-type scale: (1) *Definitely NOT cheating* and (10) *Definitely IS cheating* (see Appendix A). The questions and/or scenarios were adapted from various sources (see Kuntz & Butler, 2014; Whitley & Keith-Spiegel, 2002). Additionally, participants were asked to complete demographic descriptors to detail the composition.

Results

In order to gain greater understanding of how cheating is defined, our participants were first provided a text box in which to write out *their* definition of cheating. We specified that we were not asking about the "relationship" type of cheating (i.e., infidelity), but left the scope of the definition open to participants 'interpretation. Then, they identified how strongly they believed a series of behaviours to be cheating. First, we present the student response data, then the faculty data, and finally we examine the relationships, differences, and similarities between these two groups.

Student Data

The data were collected and we coded the data to identify themes brought forward in the definitions. Two coders rated each response and any disagreements were discussed and agreed upon by both coders. The following four major themes were identified: stealing/misrepresentation, rules, aids, and helping (see Table 1). The most frequently included theme was that cheating constituted stealing or misrepresenting the work.

Table 1. *Percent (and frequency) of Unique Student and Faculty Participants whose Response Included each Theme.*

Student	Theme and example	Faculty
66.67% (10)	Stealing/misrepresentation	100% (10)
	"...commonly understood to be used for unfair advantage or shortcuts..."	
46.67% (7)	Rules	60% (6)
	"...use of material that isn't otherwise allowed (because of faculty rules, school policy, disciplinary expectations, etc.)..."	
40% (6)	Aids	70% (7)
	"Cheating is using other resources, including that of other students..."	
6.67 (1)	Helping	20% (2)
	"...taking screen shots of quiz and sending it to your friends so they give you answers or they know the questions of quiz."	
0% (0)	Unfair advantage	40% (4)
	"...submitting work that is not your own, or that you did not come up with on your own..."	

Shifting our attention to the list of rated behaviours, mean scores and standard deviations for each are shown in Table 2 (note: missing values were replaced with the item average). The items with the highest average scores (i.e., were rated the highest as definitely being cheating) appeared to also be the less ambiguous cases of cheating behaviour (i.e., more intentional), including copying from another student during a test or exam without their knowledge; turning in work done by someone else; taking a test or part of a test for someone else; and copying a few sentences from an internet site (word for word) without citing them. The least consistent offences included using a false excuse to obtain an extension on a due date and doing less than your fair share of work on a group project, although these lowest items still obtained an average score above the "neutral" score of 5, indicating that students did still perceive these instances to be cheating.

Table 2. Means and standard deviations for students' and faculty's assessment of cheating behaviours.

Students			Faculty	
M	*SD*	Survey Item	*M*	*SD*
7.73	2.69	Changing a graded test/exam and returning it for more marks/credit	9.00	1.79
8.53	2.31	Copying a few sentences from an internet site (but changing a few words) without citing them	7.90	1.58
9.47	1.41	Copying a few sentences from an internet site (word for word) without citing them	9.10	1.04
9.40	0.95	Copying from another student during a test/exam WITH their knowledge	10.00	0.00
9.87	0.34	Copying from another student during a test/exam WITHOUT their knowledge	9.90	0.30
5.27	3.02	Doing less than your fair share of work on a group project	4.50	1.91
8.00	2.45	Fabricating data (e.g., adding extra, unused references at the end of a paper)	8.60	2.24
6.07	3.21	Failing to report a grading error (e.g., the teacher gave you a higher mark than you earned)	2.80	1.66
8.13	2.73	Getting questions and/or answers from someone who has already taken the test	7.80	2.52
9.33	1.35	Letting another student copy from your test or exam.	9.89	0.30
7.47	2.78	Letting another student copy your homework or assignment	8.56	1.62

Students			Faculty	
M	*SD*	Survey Item	*M*	*SD*
9.33	1.14	Submitting a paper done completely, or in part, by another student	9.80	0.40
8.27	2.52	Submitting substantial portions of the same paper to more than one course without consulting with the instructor	7.40	2.87
9.53	1.09	Taking a test or part of a test for someone else	9.50	1.50
9.53	1.26	Turning in work done by someone else	10.00	0.00
5.80	3.31	Using a false excuse to obtain an extension on due date	7.60	2.62
7.67	2.47	Using an electronic or digital device (e.g., phone) during a test/exam	8.80	1.72
8.80	2.07	Using notes during a test/exam when your professor said not to	9.90	0.30
7.67	3.38	Using resources prohibited by the professor to complete an assignment	9.40	1.50
6.20	3.33	Working as a group on an assignment (or homework) that was supposed to be completed individually	7.20	2.64
8.10	0.91	Overall	8.38	0.91

Faculty Data

Two coders rated each faculty response and disagreements were dealt with by discussion. Similar to the student-identified themes, faculty also brought forward the same themes in their definitions (stealing/misrepresentation, rules, aids, and helping). An additional theme was also present, that of cheating bringing about an unfair advantage. These data are displayed alongside the student data in Table 1. Moving to the behaviours rated on a Likert-like scale, missing values were replaced with the item average before proceeding. Mean scores and the standard deviations for each question are in Table 2. The most consistent responses from faculty about what definitely was cheating included copying from another student during a test (both with and without their knowledge); turning in work done by someone else; using notes during a test/exam when your professor said not to; letting another student copy from your test or exam; submitting a paper done completely or in part by another student; and taking a test or part of a test for someone else.

Faculty score two items quite low, suggesting that they did not really view these as cheating: failing to report a grading error (e.g., the teacher gave you a higher mark than you earned); and doing less than your fair share of work on a group project.

Comparing Student and Faculty Perceptions

Looking first at the definitions provided by both groups (and corresponding themes), we can see much agreement. However, there is one difference which is quite interesting. Although no student identified the unfair advantage brought about by cheating, 40% of faculty did. An additional inconsistency across the two groups involved the frequency of inclusion for the theme of aids. Faculty reported this theme (70%) nearly twice as often as students (40%). Similarly, faculty included helping behaviour as part of their definition much more frequently (20%) than did students (6.67%). This could simply be a case of faculty including more fulsome definitions than students, and including more themes because there were more words. To examine this, we counted the number of words for each response. Indeed, faculty used nearly twice as many words on average (M = 43.55, SD = 28.61) than students (M = 21.20, SD = 13.46), a difference which is significant ($t(13) = 2.40$, $p = .02$, $d = .99$). The difference in the length of definition of cheating will be further explored in the discussion section.

For the specific behaviours which were rated as being cheating or not on a Likert-type scale, there again appeared to be a great deal of consistency between what students and faculty considered to be the "worst" cases of cheating and the "least bad" examples. To assess this quantitatively, we ranked the items for each group based on their average score and then examined this relationship with a Spearman correlation. This analysis showed a strong, positive correlation ($r_s = .80$, $p < .001$), suggesting that the items tended to be in approximately the same order for both students and faculty. However, there were two items whose rankings were substantially different between the two groups. First, for "using resources prohibited by the professor to complete an assignment", faculty ranked it higher (rank = 8) than students (rank = 14.5) suggesting that this was viewed as more definitively cheating by faculty than students. Second, for "submitting substantial portions of the same paper for more than one course without consulting with the instructor", the reverse pattern was seen, with students reporting that this was more definitely cheating (rank = 10) than faculty (rank = 17).

Unlike in the student data, faculty actually scored two items below the "neutral" score of 5, suggesting that they did not really view these as cheating: failing to report a grading error (e.g., the teacher gave you a higher mark than you earned); and doing less than your fair share of work on a group project. Students being stricter about what constitutes cheating was somewhat surprising as we expected faculty to perceive more items as cheating than students.

Discussion

Our study employed open-ended text to extract students 'and faculty's definitions of academic cheating, with as little influence from us as possible. We looked for common themes to narrow down the definition by group, and possibly uncover reasons behind academic dishonesty. Does the hierarchical relationship between students and faculty also result in differences in

subjectivity in defining cheating behaviour? Although similar themes were found in the definitions of both groups, faculty additionally pointed to the idea that cheating gives an unfair advantage to students, possibly a result of their fully developed pre-frontal cortex (Arain et al., 2013; Rubia et al., 2000; Sowell et al., 2003), and/or reflecting their more advanced moral reasoning compared to students (Kohlberg, 1973). An additional interpretation for this difference is that the difference in gender breakdown across our two groups (student respondents were primarily female whereas faculty respondents were mostly male) could point to a different interpretation of collaboration and competition in the academic context. As such, future research should explore the possibility of gender differences in defining cheating, both from the student perspective as well as the faculty perspective. Based on the average age of student respondents, they are likely in the conventional level of moral reasoning where behaviour is governed by conformity, rules and laws coming from authority figures; "good" or "bad" are black and white. Conversely, given that most faculty had 10 or more years of experience teaching (require at least a Master's degree), we could estimate that most are probably reasoning at the post-conventional level in which ethics and morality also come into play when judging whether a behaviour is "good" or "bad." Future research might investigate these possibilities.

It was also particularly interesting that faculty perceived two items in the list (not signaling a grading error resulting in a higher grade on an assignment, and, not doing your fair share on a group project) as not really cheating, whereas students did. This is peculiar considering no student mentioned "unfairness" in their definitions, but these items clearly provide an unfair advantage. Again, this could be related to the moral reasoning differences we posited, but outside the scope of this study.

Do we agree with Bowers (1964) that cheating is a form of deviance, or allow for a more nuanced perspective? Perhaps objective reality is adjusted to fit the individual's needs through the construction of meaning (Ardiansyah & Ujihanti, 2018). Since our experiences define us, do we find fault with one's decision to diverge from the norm and define the world differently, or do we allow context, culture, values to establish right and wrong? According to Martin (2012), Western culture is far more likely to have instances of academic cheating. Similarly, could the differences in the cheating behaviours observed be a product of specific academic disciplines and the types of assessments that are the most common in those disciplines? Is it because we cheat more, or is it because we define collaboration on solitary tasks to be unacceptable and therefore define it as such? The issues underlying cheating are many. While a devalued diploma and/or degree reflects poorly on the granting institution, an unqualified professional practicing in their field is egregious and also potentially puts lives at risk. We need to consider the reasons behind cheating, as well as the means of correcting the behaviour early, or risk a trend of continued transgression (Lupton et al., 2010). In addition to the differences is faculty's perceived role in the instruction of academic integrity (Peters et al., 2019), new research suggests that differences could also exist in how full-time and part-time contract faculty approach this topic (Dyer et al., 2022). Although we did not ask faculty to identify whether they were full-time or part-time,

future research may be able to collect this additional information to help tease apart some of the questions posed here.

Cheating behaviour can be influenced by distal influences originating from differences in the educational systems and societies in which students are embedded. In Eastern-European countries, the prevalence of academic cheating is 87.9%, in comparison with approximately only 5% measured in Scandinavian countries (Teixeira & Rocha, 2010). Furthermore, according to Grimes (2004), in post-socialist countries, students self-report cheating significantly higher than in the U.S.A. Poltorak (1995) believed pervasive cheating at the societal level explained how Russian students who regarded academic dishonesties as cheating, found collaborative, assignment-related dishonesties acceptable. She argued Russians acclimated to the lack of competition due to egalitarian ideology during Socialism leading to collaboration. Furthermore, opposition to authority can lead to the legitimization of cheating and provide an explanation for rampant cheating by Moscovites and Eastern Europeans compared to Western Europe or North-America. The possibility exists a more socialistic society could increase cheating behaviour, while simultaneously disregarding it as deviant behaviour. Cheating was once shameful behaviour; however, academic cheating behaviours may be trending towards being more socially acceptable.

Conclusion

The purpose of this study was to develop a better understanding of why students cheat, with the hopes of being able to better prevent transgressions. We described themes that emerged in students 'and faculty's definitions of academic cheating, and found that faculty demonstrated a much greater awareness of the unfair advantage that cheating places on students, a notion that students did not include in their definitions. Additionally, because much less is known about the behaviours of college students (compared to university students), this descriptive study fills an important gap in the current literature. Future studies should build on the work presented here and further explore the possible explanations proposed here of differences in moral reasoning and more inherent gender differences, as well as the effects of specific academic disciplines.

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Appendix A

Part 1: In your own words, define cheating as it relates to school (we are NOT interested in your definition of cheating in the context of relationships):

Part 2: For each of the questions below, please indicate whether you think it is cheating or not, where 1 = Definitely NOT cheating and 10 = Definitely IS cheating.

1. Using resources prohibited by the professor to complete an assignment.
2. Using notes during a test/exam when your professor said not to.
3. Using an electronic or digital device (e.g., phones) during a test/exam.
4. Copying a few sentences from an internet site (word for word) without citing them.
5. Copying a few sentences from an internet site (but changing a few words) without citing them.
6. Getting questions and/or answers from someone who has already taken the test.
7. Working as a group on an assignment (or homework) that was supposed to be completed individually.
8. Copying from another student during a test/exam WITHOUT their knowledge.
9. Copying from another student during a test/exam WITH their knowledge.
10. Using a false excuse to obtain an extension on due date.
11. Letting another student copy your homework or assignment.
12. Letting another student copy from your test or exam.
13. Doing less than your fair share of work on a group project.
14. Changing a graded test/exam and returning it for more marks/credit.
15. Submitting substantial portions of the same paper to more than one course without consulting with the instructor.
16. Fabricating data (e.g., adding extra, unused references at the end of a paper).
17. Failing to report a grading error (e.g., the teacher gave you a higher mark than you earned).
18. Submitting a paper done completely, or in part, by another student.
19. Turning in work done by someone else.
20. Taking a test or part of a test for someone else.

Academic Integrity and Student Mental Well-Being: A Rapid Review

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Abstract

Despite concerns arising from academic integrity practitioners, researchers, and stakeholders about the relationship between academic integrity (or violations of academic integrity) and student mental well-being (or distress), there is a lack of literature synthesizing available evidence. Particularly, it is unclear about when student mental well-being may be of concern during procedures that concern breaches of academic integrity. Our rapid review identified and analysed scholarly sources (n = 46) to understand the relationship between academic integrity and mental well-being among postsecondary students. Five themes emerged: a) negativity bias; b) inconsistency of definitions; c) paradigmatic tensions; d) focus on external stressors; and e) focus on mental well-being prior to a critical incident. We propose several calls to action and implications for practice. There is a need to better understand the impact of an alleged or actual academic integrity violation on students' mental well-being. Practitioners in Canada and internationally should integrate supports for students' mental well-being in processes and procedures that uphold academic integrity.

Keywords: academic integrity, academic misconduct, mental well-being, mental health, stress, rapid review, higher education, students

Academic Integrity and Student Mental Well-Being: A Rapid Review

Academic integrity violations remain a concern for educators, student affairs professionals, and administrators, as well as other campus stakeholders in higher education. There is a substantive body of research on postsecondary student academic misconduct and the factors that contribute to it (Bertram Gallant, 2008; McCabe, 1992, 2016; McCabe et al., 2012). Although stress and anxiety have been identified as factors contributing to academic misconduct (Adam, 2016; McCabe, 2016), little research appears to have been conducted explicitly exploring the relationship between mental well-being and academic integrity (Eaton & Turner, 2020).

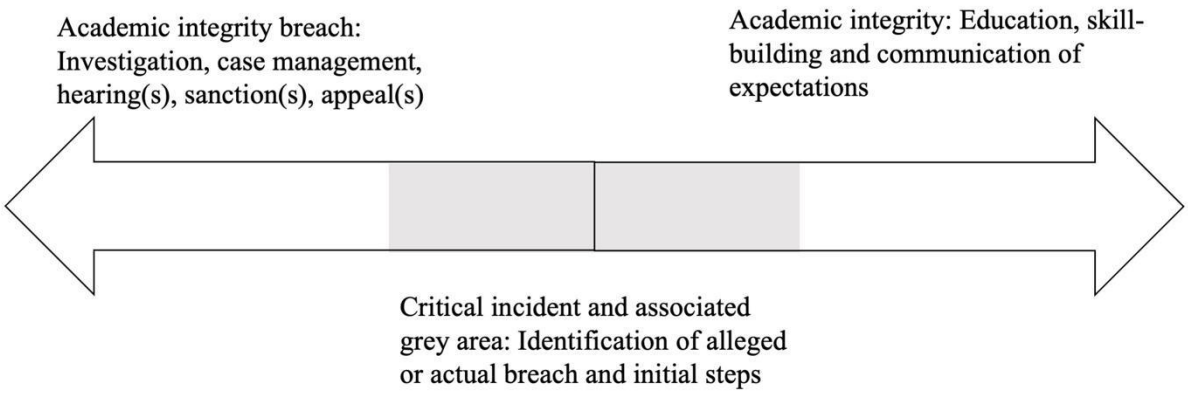
Defining Academic Integrity and Mental Well-Being

Academic integrity has been described as a continuum in which preventative education and skill-building exist at one end and case management for academic misconduct, including hearings, appeals and even legal proceedings exist at the opposite end (Frenken, 2013; Newton & Lang, 2016). In the middle of the continuum there is a critical incident that triggers

a report or investigation of suspected or actual misconduct, at which point the matter is often handed over to an administrator for case management (Frenken, 2013) (see Figure 1). On either side there is a substantial grey area in which instructors may or may not abide by institutional policies with regards to documenting and reporting a case (Eaton, 2021). Instructor reluctance to report academic misconduct has been well documented in the literature for decades, with reasons including the amount of emotional labour, anxiety, and stress that result from the administrative burden of reporting, along with fears of retribution from students or harassment from supervisors who do not wish to engage in an investigation of the misconduct (Crossman, 2019; Eaton, 2021; Singhal, 1982; Thomas, 2017; Wright & Kelly, 1974). Also in the grey area is the process involved in determining whether the alleged transgression constitutes an unintentional breach of integrity (e.g., due to lack of knowledge or skills) or pre-meditated deceit. This determination can impact the severity of the sanction imposed in a case. Research over time has shown that there can often be an assumption of deceit on the part of those who identify an initial alleged breach (e.g., the instructor), but that students may be unaware that they have committed a breach or may underestimate its seriousness, particularly if they lack maturity or are unfamiliar with the expectations of the learning institution. It is within this grey area that concerns for student mental well-being could emerge; for example, possible distress following the identification of alleged academic misconduct. Figure 1 offers a visual representation of the continuum of academic integrity, highlighting the grey area in the middle centered around a critical incident.

Figure 1

Academic Integrity Continuum



There are inconsistencies in definitions of academic integrity and mental well-being; however, there are guiding principles that informed our work. Definitions of academic misconduct and related concepts such as plagiarism and academic cheating are often defined by individual institutions. However, the International Center for Academic Integrity (ICAI, 2021) identified six fundamental values of integrity: courage, fairness, honesty, respect, responsibility, and trust. Demonstrating these values in a variety of ways is often viewed as acting with integrity, both within and beyond learning institutions. The European Network for Academic Integrity (ENAI), (n.d.) offers the following definition of academic integrity, "Compliance with ethical and professional principles, standards, practices and consistent

system of values, that serves as guidance for making decisions and taking actions in education, research and scholarship" (Tauginienė et al., 2018, p. 7-8). The ICAI framing of academic integrity focuses exclusively on values, whereas the ENAI definition includes the concepts of compliance, professional principles, and standards that are not evident in the ICAI definition. This is not to say that one approach is better than the other, but rather we offer these definitions to highlight that there is no universally accepted definition of academic integrity.

Mental well-being has long been regarded as an absence of psychopathologies, though this notion has been challenged, with scholars and practitioners advocating for a focus on positive mental health (Dodge et al., 2012; Westerhof & Keyes, 2009). Westerhof and Keyes (2009) posit that there are three inter-related components of positive mental health: "feelings of happiness and satisfaction with life (emotional well-being), positive individual functioning in terms of self-realization (psychological well-being), and positive societal functioning in terms of being of social value (social well-being)" (p. 110).

The mental well-being of postsecondary students is a topic that has been addressed extensively in the extant literature (Katz & Davison, 2014; Mitchell et al., 2012; Soet, & Sevig, 2006), including broad systematic reviews (Storrie et al., 2010). However, one aspect not covered in detail is the relationship between student mental health and academic integrity. This review will be of significance for student affairs practitioners working in student conduct, wellness services, academic integrity, and academic advising service areas. These professionals can utilize the evidence provided in this review to enhance their practice, advocate for policy or programmatic changes, and better understand the intersection of academic integrity and mental health among students. It will also be relevant for scholar-practitioners and researchers who are invested in addressing the gap between enhancing academic integrity in their campus environments while caring for the well-being of their student populations.

Arising From Practice: Impact of COVID-19

The impetus for this rapid review was the implications of the COVID-19 pandemic on higher education learning environments. Practitioners in academic integrity, course instructors, students, and the media have expressed concern amidst the COVID-19 pandemic about its impacts on student mental well-being, and, separately, academic misconduct and academic integrity. There has been an ongoing call for an urgent response to better understand the impact of COVID-19 on students' mental health (see Copeland et al., 2021; Grubic et al, 2020; Liu et al., 2020). Simultaneously, there has been increased attention on breaches of academic integrity during the coronavirus pandemic (Eaton, 2021; Gagné, 2020; Kier, 2020; Sopcak, 2020). We wondered whether or how these two trends may be related. In our previous research, we sought to understand the mental health of students, as related to academic integrity, in the context of the COVID-19 pandemic (Eaton & Turner, 2020). We found that students' mental health was negatively affected due to academic integrity-related stressors during COVID-19 (Eaton & Turner, 2020). After completing this initial research in early 2020, we further concluded that, more generally, the intersection between student mental well-

being and academic misconduct was understudied in the existing body of scholarship.

Although our inquiry does not address the impact of COVID-19 specifically, we are aware of the urgency for timely scholarship to provide a foundation for further evidence-informed inquiry. Our primary motivation was to provide practitioners and scholars in academic integrity with an overview of the existing literature on this topic of emerging importance and interest. To attend to this urgent call (see Grubic et al, 2020) we opted for a rapid review to explore the scholarly literature pertaining to academic integrity and its relationship with mental well-being in a postsecondary setting to inform scholarly dialogue, as well as the practice of higher education and health professionals dedicated to student success. We assessed the extent to which the literature addressed mental well-being across the academic integrity continuum (see Figure 1).

Aims and Research Question

The primary aim of our rapid review was to explore the academic literature about the relationship between academic integrity (and related concepts, such as academic misconduct) and mental well-being among postsecondary students. Our research question was: What does the available evidence indicate about the relationship, if any, that exists between academic integrity and mental well-being? Our secondary aim, in writing this paper, was to explore the rapid review method as a novel way to derive implications for practice in the field of academic integrity.

Theoretical foundations

Academic integrity research is interdisciplinary in nature, with no single theoretical framing dominating the discourse. Among the theoretical lenses through which academic integrity research has been conducted include the theory of planned behaviour (Ajzen, 1991; Ajzen & Shikh, 2013) and organizational theory (Bertram Gallant & Drinan, 2006b). Our work aligns with scholars who advocate for a multi-stakeholder approach to academic integrity from interconnected processes of prevention, ethical decision-making, and policy implementation (Adam, 2016; Bertram Gallant & Drinan, 2006a; Bretag, 2019; Kaposi & Dell, 2012). This multi-stakeholder, whole-campus approach to this research aligns with calls to action in student affairs to approach student development and mental well-being from a holistic perspective (Baxter Magolda, 2009; Braxton, 2009).

Materials and Methods

We chose a rapid review method for our study, with the goal of locating, analyzing, and synthesizing a breadth of available evidence on a given topic quickly (Dobbins, 2017; Hartling et al., 2017). A rapid review is considered to be a modified version of systematic review method, which is a rigorous method for searching and analysing the literature in a defined area (Moher et al., 2009). A rapid review is warranted when evidence is scare or unknown and timely information is needed. It uses similar searching methodology as a systematic review, but a rapid review is distinct in its analysis methods which are more exploratory and do not include a systematic critical appraisal phase (Dobbons, 2017). The method has been

used previously in our academic integrity research (Eaton & Turner, 2020). The bodies of literature on student mental well-being and academic integrity are robust and expansive, but the scarcity of evidence at the intersection of these two fields warranted a rapid review methodology. Although our study does not relate to the COVID-19 pandemic specifically, it was during this period that we noted an urgent need to address the gap in the literature regarding the connections between academic integrity and mental health, and we view this work as having some urgency to it, given the lack of available evidence.

Search Strategy

The authors first agreed upon a study protocol that outlined a detailed plan for all phases of the rapid review, as recommended by Dobbins (2017). Following this, we conducted a systematic search of the literature in August 2020. Based on terms pulled from a seed article (Tindall & Curtis, 2020) and a preliminary database search, we identified the following five search terms:

1. academic integrity OR academic misconduct OR plagiar* OR cheat* OR academic dishonesty OR academic fraud OR contract cheat* OR academic honesty OR academic appeal
2. AND mental health OR mental distress OR wellbeing OR wellness OR trauma OR anxiety OR depression OR stress
3. AND postsecondary OR university OR college OR higher education
4. AND student or undergraduate or graduate
5. NOT infidelity

The fifth search term was necessary to filter out a high proportion of results found in the preliminary search that described cheating between intimate partners, rather than cheating as academic misconduct. These search terms (or related subject headings) were entered into six education, psychology, and interdisciplinary databases: (a) Academic Research Complete, (b) Education Research Complete, (c) EMBASE, (d) ERIC, (e) PsycInfo; and (f) SocINDEX. Author 2 ran the searches on the databases, exported the search results to EndNote X8 referencing software and de-duplicated the results.

Using Covidence software, Author 2 and 3 screened the abstracts according to the inclusion and exclusion criteria. The screening was blinded to the primary reviewers and Author 3 resolved screening conflicts. The same screening process was followed for full-text articles.

Inclusion and Exclusion Criteria

Inclusion and exclusion criteria were identified based on the concepts outlined in our research question. Articles were eligible for inclusion if they: a) focused on academic integrity or academic misconduct; b) described mental health/mental distress; c) were located in the post-secondary context; d) focused on postsecondary students; e) were published in an academic source; and f) were English language. Articles were excluded if they: a) did not describe academic integrity/academic misconduct; b) did not describe mental health/mental distress; c) were not located in the post-secondary context; d) focused on faculty members or

staff; d) were grey literature sources (e.g., dissertations, theses, blogs, magazine/newspaper articles, self-published white papers, internal reports, editorials; book reviews, handbooks); e) did not have a full-text article available; or f) were not English-language. No limits were placed on the date of publication or country of origin.

Data Extraction and Analysis

We extracted data from the following categories of the included articles: 1) country of origin; 2) purpose and research question; 3) population and sample; 4) study design and methodology; 5) key findings and results; 6) limitations; 7) whether the purpose of the article was related to the relationship between academic integrity and mental health; and 8) whether the findings described a relationship between academic integrity and mental health. All three authors partook in a norming exercise to ensure consistency across data extraction. After completing data extraction, all three authors contributed toward a narrative synthesis of the included articles (Dobbins, 2017). Common themes across the articles were identified through group consensus (Pluye & Hong, 2014). Two summary tables of the included studies were produced, one which described study characteristics, and another that identified aspects of mental well-being and academic integrity present in the included studies.

Results

The search resulted in 319 records, of which 98 were duplicates. The remaining 221 unique articles were screened, with a further 135 being excluded because they did not meet the inclusion criteria. Eighty-six articles were further assessed for eligibility, with a further 40 excluded. The remaining articles (*n* = 46) were included in the final synthesis. The following PRIMSA diagram describes the flow of articles through the searching and screening process (Moher et al., 2009) (see Figure 2).

A summary table of the included studies' country of origin, publication dates, and methodologies, and findings is archived in a publicly accessible database (Eaton et al., 2021). Publication dates ranged from 1964 to 2020, with most articles (*n* = 33) published in 2007 or later. The most common country of origin was the United States of America (*n* = 23), followed by Australia (*n* = 4), and the United Kingdom (*n* = 4). The study designs were varied: 32 used a quantitative study design, seven used mixed methods, and seven used a qualitative study design.

A further analysis of the included studies (Table 1) showed that the most common aspects of mental well-being that the studies described were fear (*n* = 26), attitudes (*n* = 26), stress (*n* = 22), and anxiety (*n* = 20). Other commonly mentioned aspects of mental well-being were depression, guilt, or test/exam anxiety. The most common aspect of academic integrity was cheating of an unspecified nature (*n* = 20) or cheating specifically on exams or assignments (*n* = 18). Plagiarism (*n* = 12) and unspecified academic misconduct or dishonesty (*n* = 15) were the other two most common aspects of academic integrity.

Figure 2

Flow of Studies Through the Search and Screening Process

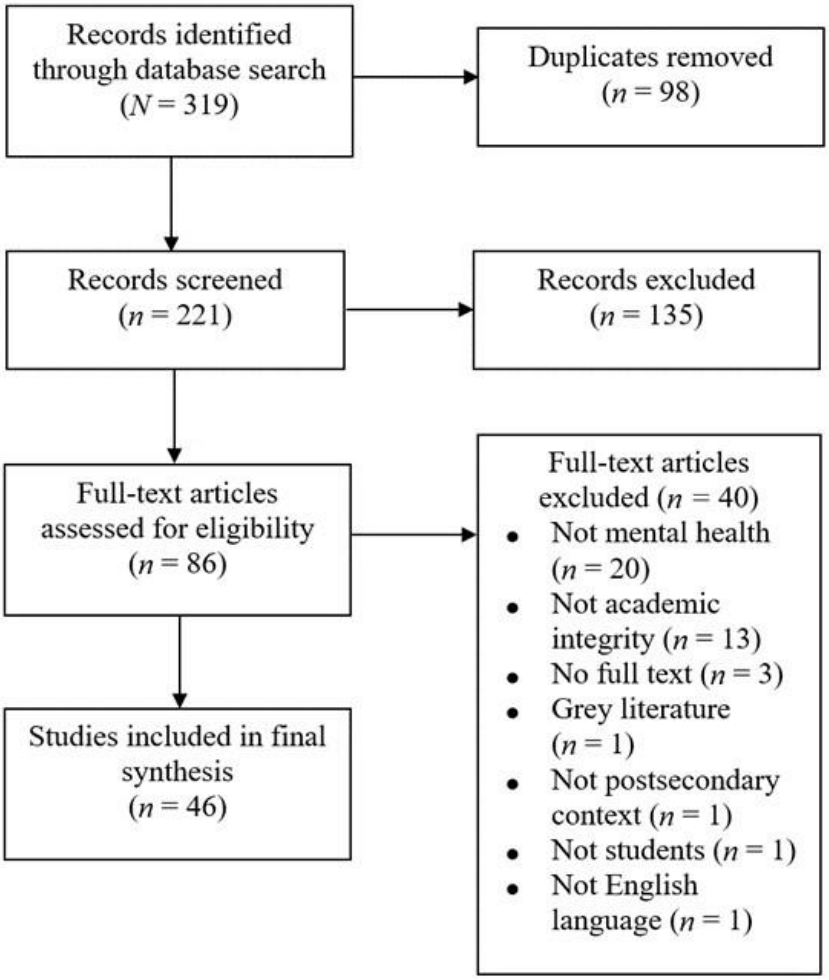


Table 1

Aspects of Mental Well-Being/Distress and Academic Integrity/Misconduct in Included Studies

	Aspects of Mental Well-Being/Distress									***Aspects of Academic Integrity/Misconduct***			
Author, Year	**Stress?**	**Anxiety?**	**Test/ exam anxiety?**	**Depression?**	**Emotions - Fear?**	**Emotions - Guilt?**	**Attitudes?**	**Affect?**	**Other - If YES, specify**	**Cheating - Assignments, Exams, Unspecified?**	**Plagiarism**	**Unspecified Academic Misconduct/ Dishonesty?**	**Other - If YES, specify**
Amua-Sekyi 2016	NO	NO	YES	NO	YES	NO	YES	NO	NO	YES - Exams	NO	NO	NO
Antion & Michael 1983	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES - Exams	NO	NO	NO
Bailey & Challen 2015	YES	YES	NO	NO	YES	NO	YES	YES	NO	YES - Assignments	YES	NO	NO
Bronzaft et al. 1973	NO	YES	YES	NO	YES	NO	NO	NO	NO	YES - Exams	NO	NO	NO
Brown et al. 2018	YES	YES	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	NO	YES	NO
Cho & Hwang 2019	NO	NO	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	NO	YES	YES - ethics
Conrad 1986	YES	YES	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	NO	YES	NO
Da'asin 2016	YES	YES	NO	NO	NO	NO	YES	NO	NO	YES - Exams	NO	NO	NO
Devlin & Gray 2007	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO
Dickstein et al. 1977	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES - Exams	NO	NO	NO

	Aspects of Mental Well-Being/Distress									***Aspects of Academic Integrity/Misconduct***			
Author, Year	**Stress?**	**Anxiety?**	**Test/ exam anxiety?**	**Depression?**	**Emotions - Fear?**	**Emotions - Guilt?**	**Attitudes?**	**Affect?**	**Other - If YES, specify**	**Cheating - Assignments, Exams, Unspecified?**	**Plagiarism**	**Unspecified Academic Misconduct/ Dishonesty?**	**Other - If YES, specify**
Dyrbye et al. 2010	NO	NO	NO	YES	YES	NO	YES	NO	NO	Unspecified	NO	YES	NO
Edwards 2007	NO	NO	NO	NO	YES	YES	YES		NO	YES - Assignments	NO	NO	NO
Firmin et al. 2009	YES	YES	NO	NO	NO	NO	NO	NO	YES - anger, empathy	YES - Exams	NO	NO	NO
Giraud & Enders 2000	NO	NO	YES	NO	NO	NO	YES	NO	NO	YES - Assignments	NO	NO	NO
Gotlib et al. 2015	NO	NO	YES	NO	YES	NO	YES	NO	NO	YES - Exams	NO	NO	NO
Gravett & Kinchin 2020	YES	NO	NO	NO	YES	NO	NO	NO	YES - emotive responses	NO	YES	NO	NO
Green et al. 2005	NO	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	NO
Greenberger et al. 2008	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES - Assignments, Exams	YES	NO	YES - collusion
Hawi 2010	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES - Unspecified	NO	NO	NO
Hofmann et al. 2009	NO	YES	NO	NO	YES	NO	YES	YES	YES - psychopathy	YES - Unspecified	NO	YES	NO
Hwang &	YES	NO	NO	YES	NO	NO	NO	NO	NO	YES - Unspecified	NO	NO	NO

	Aspects of Mental Well-Being/Distress									*Aspects of Academic Integrity/Misconduct*			
Author, Year	**Stress?**	**Anxiety?**	**Test/ exam anxiety?**	**Depression?**	**Emotions - Fear?**	**Emotions - Guilt?**	**Attitudes?**	**Affect?**	**Other - If YES, specify**	**Cheating - Assignments, Exams, Unspecified?**	**Plagiarism**	**Unspecified Academic Misconduct/ Dishonesty?**	**Other - If YES, specify**
Goto 2008													
Ip et al. 2016	YES	NO	YES	NO	YES	NO	YES	NO	YES - psychopathy	Unspecified	NO	YES	NO
Kumar et al. 2009	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES - Unspecified	NO	NO	NO
Kurland & Siegel 2013	NO	YES	NO	NO	NO	NO	NO	NO	YES - attachment security	YES - Unspecified	YES	NO	NO
Malinowski & Smith 1985	NO	YES	NO	NO	YES	YES	YES	NO	NO	YES - Unspecified	NO	YES	NO
Minarcik & Bridges 2015	YES	NO	NO	NO	YES	NO	NO	YES	YES - fatigue, doubt	NO	NO	YES	NO
Ng et al. 2003	NO	YES	NO	NO	YES	NO	YES	NO	NO	Unspecified	YES	YES	NO
Okoye et al. 2018	YES	NO	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	NO	NO	NO
Qualls et al. 2017	NO	YES	NO	NO	NO	NO	NO	NO	YES - attachment	YES - Unspecified	NO	YES	NO
Rafati et al. 2020	YES	NO	NO	NO	YES	NO	YES	NO	NO	YES -Unspecified	NO	YES	NO
Selemani et al.	YES	NO	NO	NO	NO	NO	NO	NO	YES - pressure to	NO	YES	NO	NO

	Aspects of Mental Well-Being/Distress									***Aspects of Academic Integrity/Misconduct***			
Author, Year	**Stress?**	**Anxiety?**	**Test/ exam anxiety?**	**Depression?**	**Emotions - Fear?**	**Emotions - Guilt?**	**Attitudes?**	**Affect?**	**Other - If YES, specify**	**Cheating - Assignments, Exams, Unspecified?**	**Plagiarism**	**Unspecified Academic Misconduct/ Dishonesty?**	**Other - If YES, specify**
2018									succeed				
Seltzer 1983	NO	YES	YES	NO	YES	YES	YES	NO	NO	YES - Exams	NO	NO	NO
Shipley 2009	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES - Unspecified	NO	NO	NO
Smith et al. 2013	YES	YES	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	YES	YES	NO
Steininger et al. 1964	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES - Exams	NO	NO	NO
Sullivan 2016	YES	NO	YES	NO	NO	NO	NO	NO	NO	YES - Exams	NO	NO	YES - collusion
Szabo & Underwood 2004	NO	NO	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	YES	YES	NO
Tindall & Curtis 2020	YES	NO	NO	NO	NO	NO	YES	NO	YES - emotionality	NO	YES	NO	NO
Toyin et al. 2009	YES	YES	NO	NO	YES	NO	YES	NO	NO	YES - Unspecified	NO	NO	NO
Vandehey et al. 2007	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES - Assignments, Exams	NO	NO	NO
Weber et al. 1983	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES - Exams	NO	NO	NO

	Aspects of Mental Well-Being/Distress									***Aspects of Academic Integrity/Misconduct***			
Author, Year	**Stress?**	**Anxiety?**	**Test/ exam anxiety?**	**Depression?**	**Emotions - Fear?**	**Emotions - Guilt?**	**Attitudes?**	**Affect?**	**Other - If YES, specify**	**Cheating - Assignments, Exams, Unspecified?**	**Plagiarism**	**Unspecified Academic Misconduct/ Dishonesty?**	**Other - If YES, specify**
Wenzel & Reinhard 2020	YES	YES	YES	NO	YES	NO	YES	YES	NO	YES - Exams	NO	NO	NO
Wowra 2007	YES	YES	YES	NO	YES	YES	YES	YES	NO	Unspecified	NO	YES	NO
Yesilyurt 2014	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO
Zaza & McKenzie 2018	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO
Zimbardo et al. 2003	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES - Exams	NO	NO	NO
TOTAL # YES	**22**	**20**	**14**	**2**	**26**	**6**	**26**	**5**	**9**	**38**	**12**	**15**	**3**

Discussion

Our findings point to five themes that merit deeper consideration. These include 1) negativity bias; 2) inconsistency of definitions and constructs; 3) paradigmatic tensions; 4) focus on external stressors; and 5) focus on mental wellness prior to a critical incident. We address each of these in our discussion.

Theme 1: Negativity Bias

Negativity bias is a predisposition to towards negative events as being "more salient, potent, dominant in combinations, and generally efficacious than positive events" (Rozin & Royzman, 2001, p. 297). We found an overall negativity bias in the literature with a focus on misconduct behaviours (see, for example, Bailey & Challen, 2015; Da'asin, 2016; Firmin et al., 2009, Hofmann et al., 2009; Minarcik & Bridges, 2015; Qualls et al., 2017; Yesilyurt, 2014) rather than on behaviours associated with academic integrity (Kurland & Siegal, 2013; Zimbardo et al., 2003), such as ethical decision-making.

In general, we found the literature addressed mental distress rather than positive constructs such as resilience. Only one study mentioned resilience, and it was positioned in contrast to frailty (Gravett & Kinchin, 2020), so the negative contamination (Rozin & Royzmann, 2001) was still present. There is a need to further study aspects of positive mental well-being such as resilience, positive self-image and related concepts, in relation to academic integrity.

Theme 2: Inconsistency of Definitions and Constructs

It is not uncommon for misconduct to be defined inconsistently in the literature or in academic policies. In this study, we found a diversity of constructs mentioned in the literature and some terms were poorly defined, if they were defined at all. Several articles used the term "cheating" as a blanket term for a wide range of self-reported academic misconduct behaviours (Amua-Sekyi, 2006; Antion & Michael, 1983; Bronzaft et al., 1973; Dickstein et al., 1977; Firmin et al., 2009; Hwang & Goto, 2008; Ip et al., 2016; Shipley, 2009; Smith et al., 2013; Steininger et al.., 1964; Sullivan, 2016; Szabo & Underwood, 2004; Vandehey et al., 2007; Wenzel & Reinhard, 2020; Weber et al., 1983). Authors used terms such as "stress" (Brown et al., 2018; Cho & Hwang, 2019; Da'asin, 2016; Gotlib et al., 2015; Gravett & Kinchin, 2020; Minarcik & Bridges, 2015; Rafati et al., 2020; Toyin & Akporaro, 2009) or "anxiety" (Bronzaft et al., 1973; Brown et al., 2018; Dickstein et al., 1977; Edwards, 2007; Firmin et al., 2009; Giraud & Enders, 2000; Gravett & Kinchin, 2020; Greenberger et al., 2008; Malinowski & Smith, 1985; Ng et al., 2003; Seltzer, 1983; Wowra, 2007) with an apparent assumption that these terms are universally understood in consistent ways.

It is not that such terms cannot be defined, but rather that those who wrote about these concepts made little attempt to define or discuss these terms in their studies, or they relied on self-report data about students' feelings relating to stress and anxiety, but without a deep discussion of what these terms or self-reported feelings might be. There were similar ambiguities in the usage of academic misconduct and academic integrity terminology. In other words, we found no common or consistent language or understandings of what terms such as

"stress" or "anxiety" when they are used in relation to academic integrity.

Theme 3: Paradigmatic Tensions

The existing literature originates from a variety of academic disciplines. We found that studies from psychology relied more on quantitative methods and measured particular criteria with specific tools or scales (see Antion & Michael, 1983; Dickstein et al., 1973; Hawi, 2010; Hofmann et al., 2009; Selemani et al., 2018; Seltzer, 1983; Steininger et al., 1964; Szabo & Underwood, 2004). In contrast, studies from other fields, such as education used more qualitative approaches (see Bailey & Challen, 2015; Cho & Hwang, 2019; Devlin & Gray, 2007; Firmin et al., 2009; Gravett & Kinchin, 2020; Minarcik & Bridges, 2015). This points to the possibility of paradigmatic tensions between positivist and interpretivist approaches in the ways in which mental wellness has been studied with regards to academic integrity.

Although we did not analyze the various sources that authors cited in their papers, an anecdotal observation is that authors who conducted statistical studies did not cite authors in their literature reviews who had conducted qualitative studies and *vice versa*. Such an analysis was beyond the scope of this study, though we note it would be worthy of further study. We found no evidence of a discussion about these paradigmatic tensions in the research, leading us to conclude that the existing research has been conducted within disciplinary silos.

Theme 4: Focus on External Stressors

The literature tended to discuss external stressors such as examinations (Bronzaft et al., 1973; Brown et al., 2018, Da'asin, 2016; Kumar et al., 2009; Zimbardo et al., 2003), competitive academic culture (Conrad, 1986; Dyrbye et al., 2010; Okoye et al., 2018) or the use of technologies used to detect cheating such as text-matching software (Bailey & Challen, 2015; Gravett & Kinchin, 2020; Green et al., 2005; Zaza & McKenzie, 2018). We have discussed elsewhere that the effect of technologies designed to prevent academic misconduct, such as electronic proctoring software (e-proctoring) on students' mental well-being is poorly understood (Eaton & Turner, 2020). This rapid review confirmed the need to further study how technologies that purportedly prevent academic misconduct may also have a negative impact on students' mental well-being, though further study is needed to understand this impact in greater detail.

Only one study (Ng et al., 2003) mentioned how mental health concerns co-exist with other factors such as poor time management skills or inadequate academic support. The lack of empirical studies that consider multiple and compounding factors that may positively or negatively affect students' mental well-being in relation to academic integrity is a cause for concern, as it may point to advocacy efforts for students being based on the experiences of those working in student affairs, rather than (or in addition to) evidence-based studies.

Theme 5: Focus on Mental Well-Being Prior to a Critical Incident

Of particular note was that all of the studies focused on students' mental well-being prior to a

critical incident. If we consider the Continuum of Academic Integrity (see Figure 1), we found no studies that examined the impact of a critical incident (i.e., alleged or actual misconduct) on students' well-being. Using the criteria we established for this rapid review, we found no studies that discussed, for example, mental distress among students caused by academic misconduct cases. We would argue that those who work in student affairs would be aware of such cases of mental distress and behaviours related with distress or trauma such as self-harm, but there is a lack of studies investigating what happens to a student's mental well-being subsequent to an alleged or actual misconduct incident. The lack of such studies is cause for deep concern. We recognize that studying such phenomenon could be ethically complex and may be further complicated by privacy laws that exist in many jurisdictions; however, at the very least we would urge more open discussions and inquiry about the possible impact that an academic misconduct allegation or case may have on a student's mental well-being.

Limitations

One limitation of rapid reviews in general is that although they may be comprehensive, they are unlikely to be exhaustive (Hartling, 2017). Our rapid review was limited to works written in English and those that matched our inclusion criteria precisely, using six specific education, psychology, and interdisciplinary databases. Another limitation common to rapid reviews is that the streamlined analysis approach may result in limited detail in the findings. We acknowledge this as a limitation of our study. A further limitation of our work is that although we subscribe to a multi-stakeholder approach to academic integrity and well-being, in this study we focused exclusively on students' mental well-being. A clear direction for future study includes a subsequent study to examine the impact on faculty and staff with regards to academic integrity, and breaches of it.

We intended this rapid review to be a snapshot of the academic literature pertaining to our research question at the time of the study, in August 2020. The articles included in this rapid review are limited to the period of the database search, which encompassed articles up until August 2020. Since then, further studies have explored the intersection between academic integrity and mental well-being (e.g., Eshet et al., 2021; Sanni-Anibire et al., 2021; Steinberger et al., 2021; Tindall et al., 2021). We intentionally chose to keep our search results limited to this time period to achieve our secondary aim of exhibiting the implications of this rapid review on our scholarship and practice in the field of academic integrity.

Implications and Calls to Action

Since this research began in mid-2020, during the beginnings of the COVID-19 pandemic, we have seen the topic continue to resonate with practitioners and scholars invested in academic integrity in higher education. We have explored this topic in a webinar hosted by our institution, the University of Calgary, with a campus mental health expert. The webinar was offered once in October 2020 and again in October 2021, and we explored how campus mental health approaches can intersect with academic integrity practices for more integrated policies (Taylor Institute for Teaching and Learning, 2021). We were particularly encouraged by the interest in the topic when we presented the results of our rapid review at a national conference, the 2021 Canadian Symposium on Academic Integrity (Pethrick et al., 2021). In

this session, we heard observations arising from colleagues' practice about the relationships between academic integrity and student mental well-being and we collectively identified possible action steps that could be implemented into practice. These implications for practice arose directly from the themes present in the literature and were shaped informally by the conversations with practitioners and scholars in the field of academic integrity.

Practice Implications

Our rapid review has shown that the current literature on academic integrity and mental well-being is lacking in overall terms, but specifically with regards to potential changes to an individual's mental well-being following a critical incident moment. Although there may be a lack of evidence in this area, it is clear that there is an extant relationship, and, until better evidence is available, there are some implications we can suggest for practice. Those who directly work with suspected breaches of academic integrity can develop awareness of the possible impacts of the academic misconduct process on students' mental well-being and develop small strategies to support students in distress and promote well-being. The emerging area of wellness in higher education teaching and learning, which contains a wealth of individual practices that can support student well-being, could here be applicable (DiPlacito-DeRango, 2016; Schroeder & West, 2019). For example, staff and faculty knowing how to make appropriate referrals to campus wellness supports or knowing the signs of mental distress could assist students struggling with their mental well-being during an academic misconduct process.

There are also implications for policies and procedures in higher education institutions that could enable faculty and professionals to enact these individual practices and make lasting, systemic change. This is a part of the approach of campus mental health, which advocates for integrating well-being in all aspects of the institution (Mitchell et al., 2012). To achieve an integrated approach, most importantly, staff and faculty working with academic integrity should work with campus mental health teams and wellness services. Such local collaborations would lead to supports that would be meaningful and impactful within the specific context of each particular institution. Some examples of practices that could be implemented might include the revision of academic misconduct procedures to include consideration of student mental well-being, such as providing wellness resources and well-being check-ins throughout the process. Faculty and staff could be trained on how to adequately support student mental well-being, including the limits of their support and when to refer to wellness services, which could have positive impacts for suspected and actual breaches of academic integrity. These practices should be tailored to fit the needs of each individual institution and the mental health resources available. Additionally, although beyond the scope of this review, the impacts of academic misconduct procedures or managing student distress on staff and faculty well-being cannot be understated. If faculty and staff are to be expected to consider student mental well-being in their practice, there must also be adequate systemic and individual supports available for faculty and staff.

Scholarship Implications

The experiential or anecdotal evidence that practitioners who address academic misconduct

cases may have about the impact of an alleged or actual case of academic misconduct on students' mental well-being have yet to be studied in a systematic manner such that they have resulted in scholarly or professional publications. We call on future scholarship and research to empirically study this relationship. The academic integrity continuum (Figure 1) can serve as a framework for future research to identify a temporal connection. We note that the concept of critical incidence is one that merits deeper inquiry. Furthermore, although it seems to be well-explored that student stress or anxiety may increase the likelihood of academic misconduct, future research should focus on the impact to student mental well-being after a critical incident. This line of research would be able to directly inform the practice of faculty and higher education professionals who create, manage, and execute the processes on their campuses to deal with possible breaches of academic integrity. We call for research with methodological and conceptual rigour, drawing upon understandings of mental well-being from the rich body of literature on campus mental health and nuanced understandings of academic integrity.

Although rapid review methodology (and related methodologies, such as systematic or scoping reviews) is not often used in the field of educational research, scholars have begun to explore its role in scholarship and practice (Bearman et al., 2012; Zawacki-Richter et al., 2020). In this research, rapid review methodology enabled our research team to quickly review the academic literature about mental well-being and academic integrity, draw conclusions, and create an evidence base to communicate with experts in the field. We recommend that future research utilize the rapid review method as a rigorous way to evaluate evidence about emerging topics in academic integrity and make expedited, evidence-based implications for practice. Research teams interested in utilizing this methodology should consult an expert in rapid review methodology, such as an academic librarian, to make informed decisions about whether a rapid review would be appropriate for their research purpose and how to conduct a rapid review with rigour.

Conclusions

Although mental health is a topic of concern on many campuses, academic integrity, as it relates to mental well-being, has yet to be fully considered as an important topic from an evidence-based perspective. Our rapid review method was a way to spark conversations among practitioners and scholars about an area yet to be explored systematically in the field of academic integrity. This rapid review provided evidence that informed implications for practice and scholarship. We conclude with a call to action. There is an urgent need to better understand the impact of an alleged or actual academic integrity violation on students' mental well-being. This is a clear direction, not only for future research, but also for student advocacy and as an essential aspect of discussions about the student experience.

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Academic Integrity and Artificial Intelligence in Higher Education Contexts: A Rapid Scoping Review Protocol

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Abstract

This paper presents a protocol with methodological considerations for a rapid scoping review of academic integrity and artificial intelligence in higher education. This protocol follows Joanna Brigg Institute's (JBI) updated manual for scoping reviews and the Preferred Reporting Items for Systematic reviews Meta-Analysis (PRISMA) reporting standards. This rapid scoping review aims to identify the breadth of the literature reflecting the intersection of academic integrity and artificial intelligence in higher education institutions. The included studies in the review will be analyzed for insight concerning this emerging area, particularly its ethical implications. Our findings will be relevant for academic staff, administration, and leadership in higher education and academic integrity researchers.

Keywords: *academic integrity, artificial intelligence, rapid scoping review, higher education, Canada*

Introduction

The presence of Artificial Intelligence (AI) tools for accessibility and inclusivity in education has increased rapidly, and it has expanded to a broader audience, opening new possibilities and posing novel questions for educators, administrators, and students. Immersed in this scenario, the development of algorithmic writing technologies, capable of developing human-like text with little or zero human input (Dans, 2019; Köbis & Mossing, 2021), has created new challenges to academic integrity for educational institutions, especially in online and blended learning

environments. The intricacies of AI in educational contexts also extend to their potential to disconcert educators who might be unprepared for these changes (Eaton, 2021); AI in education can be confusing to many since it offers tools that could either help student cheat (Dawson, 2020) or facilitate engagement, representation, and expression (Dawson, 2020; Delisio & Butaky, 2019).

As a response to these transformations, many scholars have recommended exploring the ethical implications of AI in teaching, learning, and assessment (Zawacki-Richter et al., 2019; Bearman & Luckin, 2020). Following this call, we intend to provide timely guidance for educators seeking to implement ethical, fair, just, and accessible teaching practices that can adequately support students' learning in relation to their program's intended learning outcomes and work even under the presence of algorithmic writing technologies. In doing so, we also seek to contribute to the understanding of AI's scope, benefits, and challenges in post-secondary teaching, learning, and assessment (Popenici & Kerr, 2017; Zawacki-Richter et al., 2019) and inform a student perspective on how artificial intelligence should be used in the post-secondary sector.

To achieve these purposes, we explain in this paper how we will implement a type of evidence synthesis called rapid scoping review intended to provide insight into the available literature in the intersections of AI and academic integrity and with a focus on text-generating technologies in post-secondary education. As is customary with systematic, scoping, and rapid reviews, a preliminary step we undertook was to ensure that no other similar literature reviews already exist. We found none, and by virtue of that search, we are confident this rapid review will add to the academic integrity research base with well-timed and relevant new information.

We selected a rapid scoping review because it has the potential to properly inform various stakeholders in emerging areas such as the one we explore in this study. This scoping rapid review is an example of a growing evidence synthesis method (Peters et al., 2020), which has expanded from health to educational topics in education and social sciences (Wollscheid & Tripney, 2021).

This protocol will establish the review's background, rationale, objective, research question, screening, searching, extracting data methods, and analysis procedure. This rapid scoping review meets recommendations that emphasize the significance of developing an a priori protocol (Munn et al., 2022; Peters et al., 2020), ensuring that it is transparent and systematic in its conduct (Peters et al., 2020).

Background and Previous Literature

Teaching and learning scholars describe AI as "computing systems that are able to engage in human-like processes such as learning, adapting, synthesizing, self-correction and use of data for complex processing tasks" (Popenici & Kerr, 2017, p. 2). The implications of AI for teaching, learning, research, and assessment remain unclear and complex (Zawacki-Richter et al., 2019). AI technology, such as the Generative Pre-Trained Transformer (GPT-3), is evolving and can

develop human-like text with or without user input (Dans, 2019; Mindzak, 2020). A significant example is that AI can now re-write full sentences in popular software (Zhang, 2020).

At the same time, AI advancements can facilitate accessibility and inclusivity (Popenici & Kerr, 2017) through text summarization, real-time captioning, machine translation, and built-in libraries of idioms and phrases (Martínez, 2021). The Universal Design for Learning (UDL) framework situates technology, in a broad sense, as tools that facilitate various modes of engagement, representation, and expression (Delisio & Butaky, 2019).

In a world where AI is increasingly pervasive, educators face a blurry and entangled reality. Many educators might not yet be ready to address the challenges brought forward by AI technologies in postsecondary educational contexts (Eaton, 2021). Postsecondary teaching today requires knowing how to navigate the nuances of AI. Some authors have stressed the need to understand the difference between humans and AI and separate the uses of the latter as a support tool from those intended for cheating (Bearman & Luckin, 2020; Dawson, 2020b).

Furthermore, scholars have emphasized the significance of focusing on humans' capacity to solve problems, critique, and ask questions despite AI advancements (Popenici & Kerr, 2017). As Popenici and Kerr (2017) suggest, a scholarly discussion on AI in higher education is needed to inform the next steps. Most importantly, knowing how this technology could impact academic integrity is a critical issue in the current higher education context (Mindzak, 2020; Morrison & Mindzak, 2021; Wilder et al., 2021).

Bearman and Luckin (2020) echoed this critique about the rise of AI in higher education learning environments, urging educators to distinguish between the capabilities of human intelligence and AI when designing assessments of student learning. The authors offered examples concerning a) the role of computers in assessment procedures and b) tasks that point to capabilities exclusive to humans (Bearman & Luckin, 2020). As part of their exploration, Bearman and Luckin (2020) suggested that AI might influence education in ways that will push educators to reflect and analyze what is relevant in assessment.

Dawson (2020a) questioned the "boundary" (p. 89) between students seeking assistance from AI technologies and students cheating using such technologies. To do this, Dawson (2020) expanded on the concept of cognitive offloading, representing the use of physical actions to facilitate mental tasks. These physical actions could include the use of AI tools. The author proposed that educators should inform if they allow cognitive offloading in their course's learning tasks and assessments and provide students with the chance to use aids only when they have developed specific skills (Dawson, 2020a). Under Dawson's (2020a) perspective, mastery supported by cognitive offloading could be a suitable learning outcome if some considerations are met. Furthermore, Dawson (2020a) believed that students should know how to evaluate the outcomes of cognitive offloading.

Zawacki-Richter et al. (2019) underscored that AI is predicted to be soon adopted by higher education institutions. Likewise, they also explored the intricacies of AI in a higher education scenario characterized by budget cuts, with the potential to raise ethical implications soon. This systematic review identified that AI applications intended as support for faculty, students, and administrators could be described in four broad categories: 1) profiling and prediction, 2) intelligent tutoring systems, 3) assessment and evaluation, and 4) adaptive systems and personalization (Zawacki-Richter et al., 2019). The authors recommended that researchers discover "innovative and meaningful research and practice" (Zawacki-Richter et al., 2019, p. 20), as most studies were descriptive and quasi-experimental.

Another significant conclusion of this review was that critical reflection addressing the implications of AI from the point of view of ethics and teaching was lacking (Zawacki-Richter et al., 2019). This analysis also uncovered that most AI studies did not involve authors affiliated with Education faculties. Likewise, the studies were not explicit about the pedagogical and psychological learning theories that informed the AI implementations, which would help the advancement of this area (Zawacki-Richter et al., 2019).

Rationale

Scoping reviews allow researchers to identify the extent of the literature on a specific "topic, field, concept, or issue" (Munn et al., 2022, p. 950) while mapping the studies in that particular area (Munn et al., 2018; Munn et al., 2022; Peters et al., 2020). Researchers developing scoping reviews can meet various goals, such as identifying available types of evidence, clarifying concepts in the literature, examining how research is conducted on a specific topic, implementing it as a step before a systematic review, or identifying knowledge gaps (Munn et al., 2018; Peters et al., 2020). Thus, scoping reviews have specific methodological differences that set them aside from other kinds of knowledge synthesis, such as systematic reviews (Munn et al., 2018).

Opting for a scoping review implies that the evidence in a field is still vague and that specific questions cannot be asked at a certain point (Peters et al., 2020). Scoping reviews are most significant when the primary purpose of research is to map the available evidence on a specific area of knowledge or develop an understanding of the nature and diversity of the evidence (Peters et al., 2020).

In some cases, researchers who need to streamline decision-making processes in specific contexts with limited resources and timeframes can conduct rapid reviews (Hartling et al., 2017; Khangura et al., 2012; Tricco et al., 2015). A rapid review, in this case, would imply shortening or skipping some scoping review standard steps (Munn et al., 2018). Hence, analysis derived from a rapid review might have limitations due to its narrower scope (Hartling et al., 2017).

The quality of rapid reviews can be enhanced with some considerations, such as safeguarding the reliability of the sources and creating a relevant research question (Hartling et al., 2017). A rapid

review should also ensure the implementation of sound methods (Hartling et al., 2017). Wollscheid and Tripney (2021) add to these considerations by suggesting a clarification of priorities and strategies at the planning stages of the review. This aspect is also highlighted by Khangura et al. (2012), as non-transparent studies do not allow readers to gauge the rapid review's validity, appropriateness, and utility.

Rapid reviews in education are new, and their significance in the area is rising (Wollscheid & Tripney, 2021). In academic integrity research, researchers have also started implementing rapid reviews concerning contract cheating, academic integrity and mental health during COVID-19, and text-matching software (Eaton & Dressler, 2020; Eaton & Turner, 2020).

Objective

The rapid scoping review described in this protocol aims to identify the breadth of knowledge concerning academic integrity and AI in higher education settings involving faculty, students, teaching assistants, academic support for students, and educational developers. The data extraction and analysis of the included studies will aim to identify the ethical implications of AI, the uses of AI in higher education (for cheating/academic misconduct and teaching and learning), and the implications of AI for equity, diversity, and inclusion in higher education.

Research Question

In scoping reviews, questions are broad, exploratory, and oriented to provide an overview rather than answering specific questions (Munn et al., 2018; Munn et al., 2022). The proposed research question for this rapid scoping review is: What is known about academic integrity and AI in higher education involving faculty, students, teaching assistants, academic support for students, and educational developers? The most significant elements of this question are its participants, the concepts, and the context, which will inform the eligibility criteria of this rapid scoping review (Lunny et al., 2021; Peters et al., 2022).

Methods

Design

We designed this rapid scoping review protocol following the updated reviewer manual for scoping reviews by JBI (Aromataris & Munn, 2020). The reports will follow the Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA) (Page et al., 2021).

Eligibility Criteria

The eligibility criteria will follow the Population, Concept, and Context framework for scoping reviews (Peters et al., 2022). As this is a rapid scoping review, we have defined expansive

inclusion criteria (Munn et al., 2018) that can adequately inform readers and reviewers (Peters et al., 2020).

Population

The population must be clearly defined in scoping reviews (Peters et al., 2020). The population for this rapid scoping review are faculty, students, teaching assistants, academic student support staff, and educational developers in higher education. We will include various ranks in the faculty category, such as full professor, associate professor, assistant professor, a level below assistant professor, and others (Statistics Canada, 2022). Students attending various universities, colleges, and institutes (Government of Canada, 2022) are part of this inquiry's population. Teaching assistants refer to students who work as instructors in their field (Education USA, n.d.). The academic student support staff is connected to pedagogical support staff and other professional support available for students in the higher education system (UNESCO OECD EUROSTAT, 2001). The last category, educational developers, relates to staff collaborating with instructors, departments, and campus units in various teaching and learning activities (Kim, 2018).

Participants will be of any age and gender. Studies that are unclear about the involvement of any of these participants will be excluded. The main qualifying criterion (Lunny et al., 2021; Peters et al., 2022) is that these stakeholders have specific roles connected to teaching and learning in higher education. As Zawacki-Richter et al. (2019) recommended, we intend to contribute to a scholarship that offers a point of view of AI in higher education from teaching.

We will include studies developed in Tertiary-type A and Tertiary-type B postsecondary education (OECD, 2002). Type A programs are theory-based, and their design is intended to provide qualifications for students to enter advanced research programs and professions; this kind of program generally last four or more years (OECD, 2002). Type B programs focus on practical, technical, or occupational skills and might include theoretical foundations; type B programs usually last for two years (OECD, 2002). Consequently, studies on primary and secondary education contexts will not be included.

Concept

In a scoping review, concepts are the key issues to explore (Lunny et al., 2021; Peters et al., 2022); in this case, we explore AI. AI, in this proposal, follows Popenici and Kerr's (2017) definition: "computing systems that are able to engage in human-like processes such as learning, adapting, synthesizing, self-correction and use of data for complex processing tasks" (p. 2). As AI is an umbrella concept that encompasses various kinds of technologies and methods, we will also explore other AI-related concepts that could be relevant, such as intelligent tutoring services, natural language processing, language prediction model, machine learning, and neural network.

Context

The last element, context, is connected to the "location and/or field of the concept and/or participants of the review" (Peters et al., 2022, p. 962). We will focus on AI in the context of academic integrity. We define academic integrity as an expectation and commitment to the values of courage, fairness, honesty, responsibility, respect, and trust (ICAI, 2014) that inform ethical decision-making in teaching, learning, research, and the advancement of knowledge (Bretag, 2016). Under this definition, concepts such as ethics, integrity assurance, and research integrity also reflect this understanding of academic integrity.

Study Design

We will include qualitative, quantitative, mixed methods, theoretical and opinion studies; this choice is possible in scoping reviews as they have a broad nature that allows sources' diversity (Peters et al., 2020). We will not restrict studies by geographic location. We will, however, only include sources written in English. The restriction on language emerges from feasibility reasons (Peters et al., 2020) since all authors speak English. Likewise, we will exclude social media postings, product information and advertising. We will also include grey literature, such as conference presentations and papers, to capture the recent unpublished research in this area. Concerning publication dates, we will follow Zawacki-Richter et al. (2019) and focus on articles written since 2007, as Siri was introduced that year. Siri is an algorithm-based personal assistant and began as an AI project from the US Defense Advanced Research Agency (DARPA). Siri is relevant to this search as it was an AI solution introduced for everyday use (Popenici & Kerr, 2017).

Information Sources

We will consider a limited number of library databases or bibliographic databases; the library or bibliographic databases are transparent and reproducible. We will focus on interdisciplinary databases to conduct a comprehensive search. These databases are Academic Search Complete (EBSCO), Education Research Complete, ERIC (EBSCO), Web of Science, and Scopus. Further, we will conduct targeted searching for grey literature, including searching Google Scholar for conference presentations, as well as reviewing relevant conference websites.

Search Strategy

The search needs to be "explicit, transparent, and peer-reviewed" (Peters et al., 2020, p. 411). The research team also includes an information scientist to ensure its appropriateness (Khangura et al., 2012; Peters et al., 2020). Following JBI recommendations (Peters et al., 2020), we first developed a limited search in ERIC (EBSCO). We analyzed text words in titles and abstracts, and subject headings from the sources we could retrieve. After this, we conducted a second search in ERIC (EBSCO) using keywords and subject terms, which we will adapt to other databases to ensure that keywords and subject headings are constant and responsive to each

database's vocabulary. Table 1 presents the proposed search terms for the ERIC (EBSCO) database.

Table 1

Block Method used in the Rapid Scoping Review Search

#	Query	Limiters/Expanders	Results
S1	DE "Cheating" OR DE "Plagiarism"	Search modes - Find all my search terms	2,828
S2	DE "Ethics" OR DE "Integrity"	Search modes - Find all my search terms	19,925
S3	TI (academic N2 (integrity or conduct or misconduct or mis-conduct or honesty or dishonesty or dis-honesty)) OR AB (academic N2 (integrity or conduct or misconduct or mis-conduct or honesty or dishonesty or dis-honesty)) OR KW (academic N2 (integrity or conduct or misconduct or mis-conduct or honesty or dishonesty or dis-honesty))	Search modes - Find all my search terms	1,413
S4	TI ((research or assurance or educational) N2 (integrity or misconduct or mis-conduct)) OR AB ((research or assurance or educational) N2 (integrity or misconduct or mis-conduct)) OR KW ((research or assurance or educational) N2 (integrity or misconduct or mis-conduct))	Search modes - Find all my search terms	308
S5	TI ((research or academic or educational) N2 ethics) OR AB ((research or academic or educational) N2 ethics) OR KW ((research or academic or educational) N2 ethics)	Search modes - Find all my search terms	1,039
S6	TI contract N2 cheat* OR AB contract N2 cheat* OR KW contract N2 cheat*	Search modes - Find all my search terms	65
S7	TI ((cheating or plagiarism or eplagiarism or e-plagiarism or echeat* or e-cheat*)) OR AB ((cheating or plagiarism or eplagiarism or e-plagiarism or echeat* or e-cheat*)) OR KW ((cheating or plagiarism or eplagiarism or e-plagiarism or echeat* or e-cheat*))	Search modes - Find all my search terms	2,446
S8	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7	Search modes - Find all my search terms	22,769
S9	DE "Intelligent Tutoring Systems" OR E "Artificial Intelligence" OR DE "Natural Language Processing"	Search modes - Find all my search terms	3,078
S10	TI ((artificial or computational or machine) N2 intelligence) OR AB ((artificial or computational or machine) N2 intelligence) OR KW ((artificial or computational or machine) N2 intelligence)	Search modes - Find all my search terms	1,472
S11	TI ("ai" or "a.i.") OR AB ("ai" or "a.i.") OR KW ("ai" or "a.i.")	Search modes - Find all my search terms	797

#	Query	Limiters/Expanders	Results
S12	TI ((machine or deep) N2 learning) OR AB ((machine or deep) N2 learning) OR KW ((machine or deep) N2 learning)	Search modes - Find all my search terms	2,163
S13	TI (("natural language process*" or "language prediction model*" or "neural network*")) OR AB (("natural language process*" or "language prediction model*" or "neural network*")) OR KW (("natural language process*" or "language prediction model*" or "neural network*"))	Search modes - Find all my search terms	1,208
S14	TI (((intelligent or artificial) N3 (assistant* or tutor* or system*))) OR AB (((intelligent or artificial) N3 (assistant* or tutor* or system*))) OR KW (((intelligent or artificial) N3 (assistant* or tutor* or system*)))	Search modes - Find all my search terms	1,586
S15	TI (("text generat*" or "plagiarism detect*" or "automatic paper generat*") OR AB (("text generat*" or "plagiarism detect*" o "automatic paper generat*") OR KW (("text generat*" or "plagiarism detect*" or "automatic paper generat*")	Search modes - Find all my search terms	194
S16	TI (chatbot* or "chat bot*" or bot or bots) OR AB (chatbot* or "chat bot*" or bot or bots) OR KW (chatbot* or "chat bot*" or bot or bots)	Search modes - Find all my search terms	141
S17	TI ((exam* or test* or remote or online) N3 proctor*) OR AB ((exam* or test* or remote or online) N3 proctor*) OR KW ((exam* or test*) N3 proctor* or remote or online)	Search modes - Find all my search terms	823
S18	TI (Algorithm* N2 (write or writing or technolog* or proctor* or "text-match*" or "plagiarism detect*")) OR AB (Algorithm* N2 (write or writing or technolog* or proctor* or "text-match*" or "plagiarism detect*")) OR KW (Algorithm* N2 (write or writing or technolog* or proctor* or "text-match*" or "plagiarism detect*"))	Search modes - Find all my search terms	55
S19	TI ((paraphras* or translation or "text generat*") N3 (tool* or software* or "computer-assist*" or "computer-aid*" or internet)) OR AB ((paraphras* or translation or "text generat*") N3 (tool* or software* or "computer-assist*" or "computer-aid*" or internet)) OR KW ((paraphras* or translation or "text generat*") N3 (tool* or software* or "computer-assist*" or "computer-aid*" or internet))	Search modes - Find all my search terms	150
S20	S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19	Search modes - Find all my search terms	8,703
S21	DE "Higher Education" OR DE "Postsecondary Education" OR DE "Graduate Study" OR DE "Undergraduate Study" OR DE "Colleges" OR DE "Graduate Students" OR DE "Undergraduate Students" OR DE "Universities" OR DE "College Students"	Search modes - Find all my search terms	540,944
S22	DE "Faculty" OR DE "College Faculty" OR DE "Deans" OR DE "Department Heads" OR DE "Nontenured Faculty"	Search modes - Find all my search terms	55,742

#	Query	Limiters/Expanders	Results
S23	DE "Teaching Assistants" OR DE "Research Assistants" OR DE "Librarians"	Search modes - Find all my search terms	11,333
S24	TI (universit* or college* or "higher education*" or "post-secondary" or postsecondary) OR AB (universit* or college* or "higher education*" or "post-secondary" or postsecondary) OR KW (universit* or college* or "higher education*" or "post-secondary" or postsecondary)	Search modes - Find all my search terms	413,739
S25	TI (professor* or instructor* or faculty or librarian*) OR AB (professor* or instructor* or faculty or librarian*) OR KW (professor* or instructor* or faculty or librarian*)	Search modes - Find all my search terms	141,725
S26	TI academic N2 staff OR AB academic N2 staff OR KW academic N2 staff	Search modes - Find all my search terms	2,516
S27	TI (education* N2 (consultant* or developer*)) OR AB (education* N2 (consultant* or developer*)) OR KW (education* N2 (consultant* or developer*))	Search modes - Find all my search terms	1,211
S28	TI ((teaching or research) N2 assistant*) OR AB ((teaching or research) N2 assistant*) OR KW ((teaching or research) N2 assistant*)	Search modes - Find all my search terms	3,264
S29	TI (undergrad* or student*) OR AB (undergrad* or student*) OR KW (undergrad* or student*)	Search modes - Find all my search terms	757,117
S30	TI (graduate N2 (student* or study or studies)) OR AB (graduate N2 (student* or study or studies)) OR KW (graduate N2 (student* or study or studies))	Search modes - Find all my search terms	20,226
S31	S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30	Search modes - Find all my search terms	1,047,963
S32	S8 AND S20 AND S31	Search modes - Find all my search terms	236
S33	S8 AND S20 AND S31	Limiters - Date Published: 20070101-20221231 Search modes - Find all my search terms	201

Study Selection

The study selection will have two phases. The reviewers will first do a study selection pilot of 50 records. Two screeners will review these records' titles and abstracts independently in Covidence and determine if the results should be included or excluded, following the eligibility criteria (Lunny et al., 2021). This step ensures that all screeners use the same criteria and clearly define them. Attention to criteria applied to every piece of evidence is a considerable component (Khangura et al., 2012). The research team could decide to refine and develop a further

description of the inclusion and exclusion criteria if they detect consistency issues throughout the screening process.

After the pilot, two research team members (R1, R2) will screen all titles and abstracts independently (Hartling et al., 2017; Lunny et al., 2021). If the two reviewers disagree, a third reviewer will resolve the discrepancy (R3) (Lunny et al., 2021; Sriharan et al., 2020). Only the studies that meet or potentially meet the inclusion criteria will be considered for the next phase.

The second phase includes screening full texts using the inclusion and exclusion criteria. Two reviewers will screen these texts independently (R1, R2). A third reviewer will support the process if any disagreement emerges to ensure consensus (R3).

The reviewers will document the rapid review's search, screening, and retrieval processes with the PRISMA flow diagram, which will be automatically created in Covidence during the search and screening processes.

Data Extraction

The three reviewers (R1, R2, and R3) will develop a calibration exercise to identify if everyone understands the extraction table (Table 2) using five studies selected at random. The reviewers will determine if the data extraction template effectively summarizes the main elements of each study (Lunny et al., 2021; Tricco et al., 2015). The calibration exercise will finish once the team reaches a consensus since data extraction needs to be standardized (Peters et al., 2020). Full data extraction, using the agreed-upon table, will include two independent reviewers (R1 and R2) who will organize the information (Hartling et al., 2017; Tricco et al., 2015) and the third reviewer (R3) will help resolve disagreements if necessary (Lunny et al., 2021).

Table 2

*Proposed Data Extraction Table**

Component	Description
Citation	Source's citation data according to APA 7 guidelines
Country	Source's country (where it was implemented)
Geographical location	Source's specific city(ies) or town(s) and campus
Year of Publication	Source's specific publication year
Type of document	Source could be a (1) blog, (2) book, (3) book section, (4) conference paper, (5) conference proceedings, (6) journal article, (7) magazine article, (8) newspaper article, (9) thesis, and (10) webpage

Component	Description
Participants	Source could include: (1) faculty, (2) students, (3) teaching assistants, (4) academic support staff, and (5) educational developers
Purpose(s)	Source's purpose(s) as indicated by the author(s). This section could also include the research objectives, if included by the authors.
Research question(s)	Source's research question(s) as indicated by the author(s).
Intervention/Implementation (if applicable)	Source's intervention details.
Data collection	Source's information in how the data was collected. Other details concerning data collection, such as variables and instruments can also be included.
Results	Source's findings
Limitations(s)	Source's limitations, as communicated by the author(s)
Conclusion(s)	Source's conclusions, as outlined by the author(s)
Other data extraction elements	Source's information: (1) Ethical implications of artificial intelligence in teaching, learning, research, and assessment in higher education, (2) Artificial intelligence used for cheating in higher education, (3) Artificial intelligence for ethical support in writing in higher education, and (4) Equity, diversity, and inclusion elements in artificial intelligence for teaching, learning, research, and assessment in higher education.

* Adapted from Dobbins (2017), Khangura et al. (2012), Lunny et al. (2021), and Tricco et al. (2015).

Risk of Bias Assessment and Critical Appraisal

Since this is a rapid scoping review, we will not assess the risk of bias. However, we have managed bias in other ways. For example, we defined clear inclusion and exclusion criteria to select the sources; we also determined to have multiple screeners who will carry out independent screening processes and will use interdisciplinary resources to prevent publication bias. Furthermore, we will conduct a critical appraisal to evaluate the quality of the study methods since it can improve confidence in the study's validity (Wollscheid & Tripney, 2021). To achieve this purpose, we will use the tools from the Critical Appraisal Skills Programme (2022), which will help us determine the quality of the evidence through independent reviews (R1 and R2).

Data Analysis

The reviewers will develop descriptive thematic summaries (Lunny et al., 2021; Sriharan et al., 2020; Wollscheid & Tripney, 2021). The research team will ensure that the limitations and biases

are adequately communicated (Peters et al., 2020; Wollscheid & Tripney, 2021). We also intend to develop recommendations of implications for future research in this area (Peters et al., 2020).

Future Directions

This rapid scoping review will focus on exploring the breadth of the literature, mapping and clarifying the boundaries (Peters et al., 2020) of the intersections of academic integrity and AI in higher education. The results of this review will provide insight into the evidence in the area, which could benefit various educational stakeholders in teaching, learning, assessment, and research processes.

For instance, the findings of this rapid scoping review could help faculty, teaching assistants, academic support staff, staff from disability support offices, and educational developers identify the implications of AI-generated writing for academic integrity to be better positioned to analyze and discuss these aspects with upper-level administrators, colleagues, and students. This scoping rapid review findings could also offer them greater insight into the ethical and unethical uses of algorithmic writing technologies to prepare them to articulate the boundaries between cheating and assistance and ultimately inform the design of intended learning outcomes and assessment tasks in the undergraduate and graduate courses they teach or support. These stakeholders could also properly provide students with novel learning opportunities to use AI writing tools in ways that promote access, equity and inclusion in course-related activities and supplementary instruction instances.

Additionally, librarians could raise their awareness of the benefits and challenges of AI to contribute through their roles to educational and preventative institutional efforts to uphold research integrity, and students could identify how to benefit from this emerging technology when writing assignments and assessments in ways that are fair and just to their peers.

Overall, we see potential in this future scoping rapid review findings to impact learning, teaching, and assessment through a first evidence-based response that the post-secondary sector can use to react to the rapid spread of these AI writing tools.

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