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Challenging the profiles of a plagiarist: a study of abstracts submitted to an international interdisciplinary conference

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Abstract

Much of the current literature on plagiarism focuses on students, attempting to understand how students view the concept of plagiarism, the best ways to prevent it, and the impact of collaboration on the concept of original authorship. In this article, we look at the role of plagiarism in 761 conference abstracts written by graduate students, early- to late-career faculty, and industry representatives, representing institutions from nearly 70 countries. These abstracts were submitted for participation in an international conference focused on the liberal arts hosted by our institution over the past four years. This study analyzes the corpus for patterns of plagiarism among professional academic writers. Our findings indicate that, while other demographic categories were not consistent indicators of text-matching, full professors were the most prevalent group to produce self-plagiarized abstracts. Overall, our study illuminates the significance of power dynamics in conferences' efforts to maintain academic integrity.

Keywords: Plagiarism, Authorship, Text-matching, Globalisation, Academic writing

When Middle East Engineering University¹ (MEEU) launched its first International Liberal Arts Conference (ILAC), the organizing committee was inundated with proposals, hailing from scholars in a variety of disciplines from across the globe. The conference was intentionally multi-disciplinary and designed to bring diverse, new scholarship from around the world into conversation. While an exciting goal, it raised concerns about the conference organizers' ability to maintain academic integrity. Committee members recognized a very specific limitation with running an interdisciplinary conference: reviewers often lacked detailed knowledge of the current literature in every field represented by the submissions received. In the first four years of the conference, submissions came from over 70 countries spanning virtually every field in the social sciences, arts, and humanities. This challenge prompted the organizing committee to utilize a familiar tool, one often used in their own classrooms: Turnitin, the originality checking software used to find text-matching in submitted documents. Turnitin offered an opportunity to aid committee members in identifying potential cases of plagiarism in many disciplines beyond those represented by members of the organizing committee.

The ILAC has been held annually for the last four years at MEEU. While the theme is different each year, the conference consistently attracts scholars from all around the world to exchange new and original ideas within the area of liberal arts (broadly

defined to include all social sciences, arts, and humanities). Not only is the conference interdisciplinary, it is truly international, with participants from nearly every continent. Because external grants and sponsorship enables the conference to cover the travel and lodging costs of all participants, the call for papers draws hundreds of proposals annually. With room for only eighty presentations each year, sorting through submissions can be difficult. Conference organizers at MEEU realized very early on that the level of scrutiny must be high in order to preserve credibility of the conference and of the host university. The conference required additional accountability due to large sponsorship dollars from external organizations and industry partners. As mentioned above, in order to mitigate reviewer bias, conference organizers decided to use text-matching software, in this case Turnitin, to screen for potential cases of academic dishonesty. This article reports on the findings of our corpus analysis and considers implications for conference organizers and others who evaluate professionals' academic writing.²

As conference organizers located in international university, we were familiar with the common assumption that plagiarism might be found in abstracts from non-Western scholars, most likely those very early in their careers. Many professional groups, such as the Institute of Electrical and Electronics Engineers (IEEE, n.d.), advise conference organizers to use text-matching software in order to "ensure the quality of the conference proceedings that is distributed to attendees." For most, plagiarism in conference texts and presentations taints the quality of scholarly work and breaches the ethical norms of that particular academic community. Academics on the periphery of disciplinary norms, such as those based in non-Western countries, are presumed to be the main violators, as in this advice from *The Handbook of Scholarly Writing and Publishing* (Rocco and Hatcher, 2011):

Many international scholars from non-Western nations do not have clear information about those ethical standards [of publication and scholarship]. Therefore, unknowingly they resort to extracting or copying large chunks of information from published texts without properly citing or placing text in quotations or paraphrasing them appropriately. Their work then comes very close to plagiarism, another major ethical issue among authors mostly from non-English-speaking countries. (p. 270)

This assumption is similar to the one often made about students: international students in Western institutions come from cultures with different attitudes toward patchwriting or plagiarism and are therefore more likely to be caught by Turnitin and other text-matching software. Our corpus of conference abstracts presented a unique opportunity to test the validity of popular opinion on plagiarism and non-Western cultures from the perspective of faculty, graduate students, and other scholars' professional writing for conferences.

Literature review

Plagiarism is a notoriously slippery concept to define, given the variety of deeply contextualized authorship and textual practices in different fields and workplaces. The work of Ede and Lunsford (1991) helped illuminate collaborative writing processes amongst academic and practicing professionals in fields as diverse as engineering, chemistry, psychology, city management, literature, and technical communication.

Their survey results revealed the complex realities of authorship, such as their finding that 87% of respondents sometimes wrote as members of a team or group, a statistic not accounted for in the almost nonexistent literature in group or corporate authorship at that time. Yet Ede and Lunsford (1991) also found that these respondents often struggled to define the patterns of organization that their collaborative writing practices operated in, suggesting to them that the 'default' position of a single author prevailed in respondents' perceptions of their own writing. Since the publication of their study, others have joined in Ede and Lunsford's call to challenge the myth of the solitary author. These studies illuminate conflicts between beliefs in single authorship and the many examples of alternative models of authorship, including workplace writers' practices with "authorless" corporate texts (Brandt 2009, Brandt 2015), technical communicators' acts of text recycling (Reyman, 2008), and internet users' remixing, connecting, and combining of multimodal content (Williams, 2007). In course syllabi, faculty writers often use boilerplate text from their institution's policies without acknowledging the corporate or individual authorship of those policies. Thus, while scholars have sought to define authorship, their research into the practices and contexts of writers have made it problematic to generalize about models of authorship across contexts – and thus, models of plagiarism across contexts.

Another problem with defining plagiarism is the way that text-based conventions of acknowledging sources have shifted over time and differ across contexts, even within the same social group. These shifts and differences present difficult and perhaps conflicting sets of knowledge for new members of a particular textual community or individuals who operate at the borders of such a community. Gee (2012) defined Discourses (with a capital D) as "ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing, that are accepted as instantiations of particular identities by specific groups" (p. 3). He has compellingly argued that individuals join discourse communities not simply through "overt instruction, but by enculturation ('apprenticeship') into social practices, through scaffolded and supported interaction" with current members of that community (p. 167–8). Many educators have adopted this perspective as a way to teach conventions of citing and acknowledging sources and to socialize students into new discourse communities in academia, and the body of research on plagiarism education has produced mixed results. Previous scholars have emphasized the importance of cultural and linguistic differences in students' efforts to meet their professors' standards of source attribution (Bloch, 2008; Donahue, 2008), the wide variety of disciplinary conventions that undergraduate students encounter in courses across the curriculum (Howard and Robillard, 2008; Haviland and Mullin, 2009; see particularly Jamieson, 2008), and the complicated power dynamics between students, teachers, and the supremacy of Western academic tradition (Rudd and Hodges, 2014). A number of approaches to prevent plagiarism have been tested and suggested, including explicitly teaching about plagiarism, familiarizing students with the discipline-specific roles of primary and secondary literature (Gilmore et al., 2010) and helping students reflect on how authorship is represented in texts (Abasi, Akbari, and Graves, 2006).

However, a growing body of literature seeks to destabilize binary notions of only belonging or not belonging to discourse communities, only being taught or not being taught about source attribution conventions, only plagiarizing or not plagiarizing. In

acknowledging the complexity of authorship models and of the many different discourses at play in the university, Howard (1992) has led the way in seeing how composing strategies often lumped under the term “plagiarism” form an important part of students’ assimilation into new discourse communities. Her term “patchwriting,” or “copying from a source text and then deleting some words, altering grammatical structures, or plugging in one-for-one synonym substitutes” (1992, p. 233) has become commonplace in many writing-intensive classrooms, even if it is less common for teachers to see such a practice as not only a method for entering new discourse communities, but a legitimate way of writing in and of itself, a view Howard (1999) has advocated for. Others have argued for seeing plagiarism as part of a context-specific, ongoing, and evolving conversation in academia (Price, 2002) and as a practice that all people do as part of their reading and writing activities (Valentine, 2006). Most scholars of writing note, in the words of Anson (2011), that “our teaching about plagiarism often misrepresents the many ways in which people use text and the conditions in which they provide attribution or deliberately fail to do so” (p. 39).

This line of inquiry about authorship, plagiarism, and student writing was fruitful to this study as a way of thinking about faculty writers, who are often perceived as having already been inducted into “the club,” or the discourse communities of academia. Previous analyses of faculty plagiarism have focused on famous or notable cases of plagiarism (Chalmers, 2006) and the role of technology as a facilitator of, fearmonger of, and solution to plagiarism in academic journals (Grossberg, 2008), but rarely on a corpus of faculty writing. Sun (2013) analyzed 600 journal articles from a range of disciplines, and the only statistically significant finding was that STEM disciplines and multi-authored articles tended to have slightly more occurrences of text matching than social science fields and single-authored articles. Bretag and Carapiet (2007) examined 269 journal articles by the same 10 Australian authors and found that 60% of those authors self-plagiarized some text in at least one of the journal articles. Honig and Beti (2012) analyzed 279 papers presented at a management conference and identified 25% as containing some form of plagiarism. Each of these studies examined published journal articles or extended conference papers, genres that generally require a great deal of effort on the part of the author(s) and frequently undergo at least one peer review. However, less is known about other genres of faculty writing, particularly genres that, like the conference abstract, differ greatly across fields in purpose and in the role of the production of knowledge. This study proposes to fill a gap in the literature by analyzing faculty writers’ conference abstracts submitted to one conference over the course of several years and from a number of different liberal arts disciplines. We aim to add to the body of literature on faculty members’ practices of source- and self-attribution, text matching, and plagiarism.

Hypotheses

The previous research on plagiarism led us to three hypotheses to investigate in the corpus of ILAC conference abstracts. First, we adapted McCabe, Feghali, and Abdallah’s (2008) hypothesis that those in collectivist societies (such as the MENA region) would have higher rates of academic dishonesty behaviors as compared to those in individualist societies (such as North American or European institutions). Their study compared academic dishonesty behaviors between undergraduates at three Lebanese private

universities and undergraduates at seven American public institutions. The largest difference they found was in collaborative academic dishonesty behaviors, leading them to suggest that the Lebanese students were “strongly influenced by the norms of the collectivist society in which they are raised” (McCabe, Feghali, and Abdallah, 2008, p. 464). Honig and Bedi (2012) also investigated this hypothesis in their study of conference papers, but they divided the world into “core” and “non-core” regions, arguing that nations which have a longer history of academic institutions would have lower instances of plagiarism than “non-core” regions, which were more recently institutionalized. This hypothesis was supported in their study, noting a “particularly high yield of plagiarizers are outside of the ‘core’ countries, and in particular, of North America” (Honig and Bedi, 2012, p. 115). For our study, we wanted to know if faculty writers working in different regions of the world would follow these patterns of adopting different cultural attitudes towards textual borrowing.

Hypothesis 1: *Faculty writers in non-Western contexts will have higher instances of text-matching and potential plagiarism than those in Western contexts.*

The second hypothesis arose from our interest in academic discourse communities and different conventions for acknowledging earlier research in one’s discipline. Previous studies have found more occurrences of text-matching in STEM than in social science disciplines (Sun, 2013), but other studies have mostly occurred within one discipline (Honig and Bedi, 2012). Haviland and Mullin’s collection (2009) noted the differences between faculty members’ disciplines and concepts of ownership, intellectual property, and authorship, so we assumed that rates of text-matching would vary across the disciplines in our study. Another factor that plays a role in conventions of citing sources is rank, or time that a writer has spent becoming enculturated in disciplinary norms for attributing others’ work. Honig and Bedi (2012) hypothesized that junior faculty or graduate student writers would be more likely to include unattributed text than senior faculty because they have more to gain from plagiarizing. They did not find this hypothesis to be true in their sample; in fact, the opposite proved true, that “for core countries, mean words plagiarized for tenured or senior scholars were higher than for non-tenured or senior scholars” (Honig and Bedi, 2012, p. 114). However, the incentive to plagiarize in a conference paper, as in their study, might be different than in ours, as a conference abstract often requires less time and effort from a faculty writer, and those selected for the ILAC could expect financial support for their travel to the conference. Finally, we noticed a small but significant association of gender with plagiarism in the literature; for example, Honig and Bedi (2012) found men were more likely to plagiarize in their study of conference papers presented at a management conference. They concluded that this finding was consistent with higher levels of academic cheating amongst males (McCabe and Trevino, 1997).

Hypothesis 2: *Rates of plagiarism would vary depending upon faculty writers’ disciplines, gender, and stages of career.*

The final factor we considered in our study of text-matching was self-plagiarism. Bretag and Carapiet (2007) found that “self-plagiarism is a common practice in academic research” (p. 100), a finding matched by Sun’s (2013) study in which authors

were more likely to include text from their own previous work than from others' publications. We hypothesized that our study sample would contain the same trend.

Hypothesis 3: *Faculty writers would be more likely to self-plagiarize than to plagiarize from another's work.*

Methods

Data collection

The data used for this study was collected over the course of four years from abstracts submitted to the 2013, 2014, 2015, and 2016 call for proposals of the ILAC. The conference abstracts were submitted originally as Word documents via email or as text uploaded to a conference database site. Based on the initial analysis of the first batch of abstracts in 2013, we decided to continue our study over the course of several years in order to look for and interrogate patterns and profiles of faculty writers who submit plagiarized conference abstracts. In total, 761 abstracts submitted in response to the conference call for papers over the course of four years were examined.

The authors of these abstracts were graduate students, adjunct faculty, assistant professors, lecturers, readers, tenured faculty members, and in rare cases, academic staff or industry representatives. They included graduate students or faculty from nearly 70 different countries and six continents. The universities represented included large state-funded universities, private Ivy-league institutions, small regional universities, international branch campuses, and religiously-affiliated universities. Some demographic information was collected through self-reporting: applicants were required to include current institution and position, as well as citizenship information necessary to gain entry into Qatar. Other information was gathered using public sources, such as LinkedIn or Academia.org, and graduate student and faculty pages available on university websites.

Corpus Analysis

For the first step of our analysis, each of the 761 abstracts was converted into an individual Word document and run through the Turnitin software. The stated purpose of the software is to determine a text's originality by comparing it to a database of student papers, published materials, and online information. Turnitin reports generate a number (0 to 100); higher numbers indicate higher frequency of text matching between the abstract and Turnitin's database, and lower numbers indicate lower frequency or the absence of text matching. Of the 761 abstracts analyzed, 214 were identified as containing text matching, and potentially plagiarism.

Although text-matching services such as Turnitin were a helpful tool for our corpus analysis, there has also been serious discussion over the ability of these services to accurately capture academic misconduct. Text-matching software cannot distinguish between properly cited quotations and plagiarism (Purdy, 2005), nor can they detect if another writer has been paid to write the submission, and they do not often flag patch-writing, or when the writer changes a few words in a quoted phrase. Furthermore, Turnitin's internet database, more than 45 billion webpages, is roughly the same size as that of popular search engines, over 49 billion webpages, which are free for any internet

user (Turnitin, 2016; de Kunder, 2016). Some see these shortcomings of Turnitin and similar tools as significant given the cost of subscribing to the service and the disproportionate impact on writers with fewer material resources, who would not be able to afford hiring others to “game” the service.³

We mention these criticisms because Turnitin is not a neutral tool for analysis and is not simply a digital archive of texts (Purdy, 2009).⁴ Our study used this common method for detecting matched text in a corpus of texts, but we wanted to look more carefully at the behaviors of faculty writers.

Textual analysis

Once reports were generated, our second phase of analysis focused on identifying uses of language that could be categorized as plagiarism in the abstracts identified by Turnitin as containing text matching. Previous studies on undergraduates have used a “minimum combination of two content words (noun, verbs, adjectives, and adverbs)” without attribution as a form of text-borrowing, and defined a legitimate paraphrase as “no trace of direct borrowing of two or three consecutive words from source texts” (Shi, 2004, p. 178–179). Another study of journal article authors used 30-word strings of text-matching without attribution as an operational definition of plagiarism (Sun, 2013). Since our individual samples of writing were less than 300 words, we chose to adapt Sun’s (2013) study to define plagiarism as a minimum of 10-word strings of text-matching without attribution. Out of the original 214 abstracts containing text-matching, 126 were eliminated from the analysis because they did not meet this criteria.

Thus, the remaining 88 abstracts contained at least one 10-word string of text-matching without attribution, meaning without quotation marks, references, or other indicators of source material. In addition to the sources provided by Turnitin’s text-matching service, our own analysis of the text-matching strings found that matching language came from informational websites, personal or professional blog posts, news reports, other conference programs, conference proceedings, and published academic articles.

Within this group of 88 abstracts, we found 33 abstracts whose authors had submitted language that matched text from published works or previous conference proceedings that could be clearly identified as their own. We used Bretag and Carapiet’s (2007) definition of self-plagiarism as “10% or more textual re-use of any one previous publication by the author without attribution” (p. 92). Academic writers may have different discipline-specific norms on reusing portions of published or public work, so we also analyzed the relationship between the research proposed for the conference and the previous research done by the writer.

The remaining 55 abstracts contained text-matching that was deemed as an inappropriate use of another’s academic or other work in the creation of the ILAC conference abstract. The researchers identified abstracts that were complete reproductions of other writers’ abstracts for conferences or published articles. Other examples of text-matching included quotations and paraphrases from other writers’ academic websites, blogs, and publications. Thus, 13% of the abstracts submitted to the conference over a period of four years were found to contain text-matching that the researchers concluded to be the result of faculty writer plagiarism.

Once the two phases of analysis were completed, we looked at the demographic data associated with each abstract in order to understand how factors such as gender, geographical location of current institutions, geographical location of the institution where highest degree was obtained, rank, and discipline could be associated with academic professionals' writing practices.

Findings

Of the 761 submissions that were analyzed, a total of 88 abstracts were categorized as containing some form of plagiarism. Roughly one-third of those were categorized as self-plagiarism.

Region

Tables 1 and 2 show the number of abstracts containing plagiarism according to region of academic employment and region of highest degree attained, respectively. We hypothesized that writers from non-Western institutions would show a higher tendency toward plagiarism because of different cultural attitudes towards textual borrowing and less familiarity with Western citation conventions. Our analysis indicated that 14% of authors with abstracts containing plagiarism worked in an institution situated in the MENA area, yet only 3% of them received a degree from an institution in that region. However, authors who were working in a North American institution at the time of their submission made up 20% of abstracts containing plagiarism, and of those, 26% had received their highest degree from a North American institution. Thus, North American institutions had a slightly better chance of producing a scholar (either currently employed or matriculated graduate student) whose ILAC conference abstract included plagiarized material. Due to the limitations of our sample and global conditions surrounding academics' geographic mobility, these results cannot be extrapolated to the larger body of professionals working in academia. Instead, our data suggests that common assumptions about plagiarism and professional academic writers employed or educated in the MENA and other non-Western regions may be unfounded.

Table 1 Current Institution by Region

Region	Percentage of Region Flagged for Plagiarism	Percentage of all Flagged Abstracts
Middle East and North Africa (MENA)	5%	14%
Asia	11%	14%
Europe	7%	17%
North America	6%	20%
Sub-Saharan Africa	26%	28%

Table 2 Institution of Highest Degree by Region

Region	Percentage of Region Flagged for Plagiarism	Percentage of all Flagged Abstracts
Middle East and North Africa (MENA)	4%	3%
Asia	10%	6%
Sub-Saharan Africa	20%	6%
Europe	7%	17%
North America	6%	26%

Table 3 Abstract Breakdown by Gender

Gender	Percentage of all Abstracts	Percentage of Abstracts Flagged for Plagiarism
Male	55%	60%
Female	45%	40%

Gender

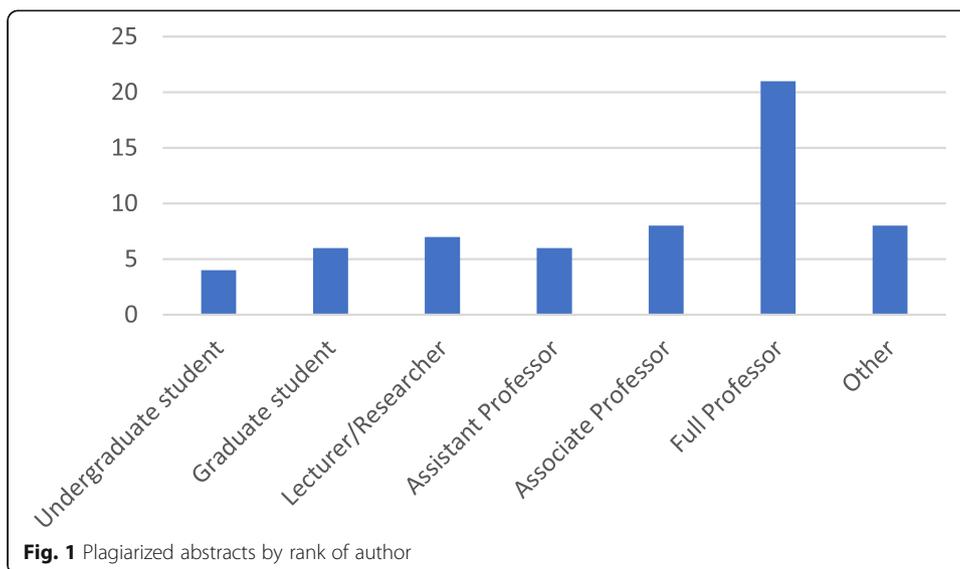
Table 3 shows the number of abstracts submitted by gender and number of abstracts containing plagiarism, as categorized by gender of author. Overall, 45% of our submissions were by females, and 55% by males; 10% of abstracts written by men and 8% of abstracts written by women were identified as containing plagiarized material. However, there was no significant finding regarding the relationship between plagiarized abstracts and gender, although there was a slightly higher proportion of males flagged for plagiarism. In the sample of abstracts containing plagiarism, 40% were by female authors and 60% by males. Our results do not allow a significant finding in regards to gender and text-matching and self-plagiarism practices in the corpus of conference abstracts.

Discipline

Table 4 shows the number of submitted abstracts according to academic discipline and the number of abstracts containing plagiarism, also categorized by discipline. In our initial coding of the dataset, submissions were divided into fourteen broadly defined disciplines. Abstracts from the disciplines of Architecture, Library and Museum Studies, Psychology, Fine Arts, and Healthcare were removed from the stratified sample due to low participation, leaving a total of 715 abstract submissions analyzed according to discipline. Of the 14 disciplines in the sample, the three fields of study with the largest number of submissions were History (23%), English (18%), and Political Science (17%). The four disciplines representing the most offenders of either type of plagiarism were History with 24% of all flagged abstracts, Philosophy with 17%, English with 14%, and Sociology with 12%. Not surprisingly, disciplines with the highest representation in our stratified sample tended to comprise the majority of abstracts containing plagiarized material, but authors of text-matching and self-plagiarism abstracts in Philosophy and Political Science did not follow this trend. Although only 8% of all submissions were from Philosophy, 17% of abstracts containing plagiarism were from this discipline. The third largest discipline (17%) in our stratified sample, Political Science, comprised only 8% of abstracts containing plagiarism. While we could not definitively argue that certain disciplines are more likely to commit plagiarism, the findings are interesting.

Table 4 Submitted Abstracts by Academic Discipline

Discipline	Percentage of All Submissions	Percentage of All Plagiarizers
History	23%	24%
English	18%	14%
Political Science	17%	8%
Philosophy	9%	17%
Sociology	8%	12%
Business/Economics	7%	3%
Anthropology/Archaeology	7%	5%
Education	7%	10%
Math/Science	3%	7%



Rank

Figure 1 shows the number of abstracts containing plagiarism according to rank of most recent academic appointment. In our dataset, the most common occurrence of plagiarism was self-plagiarism committed by professors (identified as “Full Professors” in our dataset). These faculty writers submitted a conference abstract that met the 10% threshold identified by Bretag and Carapiet (2007). In fact, out of the abstracts identified as containing plagiarism of some kind, 91% of full-professor authors submitted an abstract that exactly matched the text of their own previous publications or conference abstracts. The analysis of our dataset suggests that textual borrowing practices, and self-plagiarism in particular, are more prevalent in conference abstracts written by those in the higher ranks of academic professionals.

We hypothesized that undergraduate and graduate student authors would be more likely to submit abstracts containing plagiarism, as many of those writers are still learning discipline-specific conventions of citation, documentation, and appropriation of language. However, our data did not support this assumption, just as it did not support common assumptions about regional differences in plagiarism practices. Table 5 demonstrates the fairly equal geographical distribution of professor-authored conference abstracts containing (self-)plagiarized material.

In this case study of a corpus of abstracts from an interdisciplinary, international conference, an analysis of text-matching and text-appropriation practices showed that

Table 5 Full Professors who Plagiarized by Region

Region	Percentage of Professors who Plagiarized
Europe	8%
Asia	17%
MENA	17%
North America	17%
South America	17%
Sub-Saharan Africa	24%

region of employment, region of professional education, gender, and academic field or discipline were not consistent indicators of abstracts flagged for plagiarized material. Although we are hesitant to generalize about our findings on the relationship between plagiarism and rank of academic appointment, full professors were the most prevalent group of authors submitting abstracts containing self-plagiarism.

Limitations

First, the ILAC hosts and pays for nearly every person who is accepted for inclusion in the conference program. Thanks to generous sponsors and funding, the conference pays for the airfare and hotel accommodations of all conference presenters. There is also no registration fee, and the expenses are generally prepaid rather than reimbursed. In consequence, this eliminates many of the potential economic obstacles that often prevent scholars from attending international conferences. Qatar also has a less restrictive entry visa system for professionals attending conferences than the United States or many other traditional academic hubs. This added to the conference's global appeal and ensured scholars came from a wide range of career stages. An unintended consequence of such accessibility measures is that the conference may attract scholars simply looking for a free trip.

Second, the standards the authors used for this analysis are primarily Western; we used software that was developed in North America with a specific understanding of originality. However, as we discovered in the literature review, not every part of the world has the same ideas around originality and plagiarism. Although someone may have received their highest degree from an institution in North America, their upbringing elsewhere may still have an effect on how they view originality.

Discussion and conclusion

What we can see from this data is that distinct patterns of plagiarism are difficult to detect. Our first hypothesis, that faculty writers in non-Western contexts would have higher instances of text-matching and potential plagiarism than those in Western context, did not prove to be true. These findings are consistent with other studies that reject cultural difference as the only cause of academics' plagiarism, and call upon all of us to "not assume that people from other cultures are any more likely to plagiarize than native English speakers in the U.S." or other Western countries (Pedersen, 2013, p.191). Instead, faculty who attained degrees in North America were the most prevalent group of writers with text-matching in their abstracts (26% of all abstracts identified as containing text-matching). However, this finding was consistent with the demographics of our corpus of abstracts.

Our second hypothesis was that rates of text-matching would vary according to discipline, rank, and gender, and of these factors, only rank seemed to play a role in potential plagiarism. Rates of text-matching by gender and discipline were consistent with the overall breakdown of abstracts submitted to the conference, but senior faculty writers had a tendency to self-plagiarize. Thus, our third hypothesis was supported by the data. Since our study was primarily quantitative in nature, we did not interview the participants regarding reasons for full professors' self-plagiarism, which could include the common knowledge that established/tenured professors are often sought out to

discuss their published work, are encouraged to build upon their own research projects, and simply have more previous work to draw on than junior faculty members. Additionally, conference abstracts might be quickly written or the same abstract sent to multiple venues in case of rejection.

These findings complicate common perceptions of professional faculty writing and plagiarism. While it might be easy to read these behaviors as hypocritical, we consider how full professors' self-plagiarism could be positioned in other ways. Since plagiarism can be seen as a form of collaborative writing in that writers are collaborating with other texts (Howard, 1992), our study indicates that self-plagiarism, and thus some kinds of collaborative writing, are more prevalent among senior scholars in their fields. Sometimes rising as managers or as faculty leaders at their institution in addition to advancing in their reputation as scholars, these tenured professors participate in multiple levels of collaborative work. According to Valentine (2006), plagiarism among students "can more usefully be understood as a culturally and socially situated use of knowledge that doesn't fit with and cannot be accounted for by American-academic cultural and social uses of knowledge" (p. 107). Although we did not find significant western and non-western cultural differences between incidences of text-matching, other cultural factors (in the sense of Bourdieu's *habitus*) could inform further research on why faculty members plagiarize.

Our study also indicated that power within an institution may play a role in faculty plagiarism, as text-matching behaviors were most often associated with increased rank. According to Fishman's (2009) definition, plagiarism depends on the presence of textual evidence, as when someone

1. Uses words, ideas, or work products
2. Attributable to another identifiable person or source
3. Without attributing the work to the source from which it was obtained.

At the same time, social factors and power dynamics complete the construct of plagiarism, as her definition continues:

4. In a situation in which there is a legitimate expectation of original authorship
5. In order to obtain some *benefit, credit, or gain* which need not be monetary.

(Fishman, 2009, p. 5; emphasis added)

Our interpretation of the dataset highlights the influence of the social factors and power dynamics on academic conferences. As our institution started a new conference, the organizers wanted to inspire dialogue between different fields, add to the body of academic knowledge, and gain prestige for both the institution, the conference, and others in the region. At the same time, applicants knew from the CFP (Call for Proposals) that financial assistance would be given to accepted abstracts; others might have considered the intangible benefits that might be obtained from attending the conference, such as another line on their CV or cultural capital with their institution. Thus, both parties had something to gain from this situation, and the social dynamics were ripe for a conflict of values.

With something to gain, faculty writers operating from a position of prestige in terms of rank might have less regard for original authorship, the other situational factor in Fishman's (2009) definition. As Eisner and Vicinus (2008) note, originality is "in many ways the most elusive" concept of plagiarism (p. 5). The ideas that appear in faculty writing can be attributed to many different, sometimes intangible, avenues, including conversations with colleagues, presentations attended but not precisely remembered, and concepts gleaned from many different sources. For self-plagiarists, it may be difficult to determine where one project ends and another begins, or it may be that faculty writers want to publicize their previous work in new venues. Whatever the reasoning behind this behavior, our study illuminates the significance of power dynamics in conferences' efforts to maintain academic integrity. Full professors, who "have more tools to avoid or resist challenges to their abuses and prerogatives" (Martin, 2016, para. 55), were more likely to self-plagiarize an abstract to our new international, interdisciplinary conference, which may have been perceived as less prestigious, and therefore less powerful.

While organizing the conference, if plagiarism or self-plagiarism was found in an abstract the author was notified of their transgression, provided with evidence of their plagiarism, and informed that they would not be allowed to take part in the conference. These places in the program were then extended to scholars (often graduate students or early-career researchers) who could not obtain funding from their home institutions. We hoped that in some small way, these actions would contribute towards redistributing power in exploitative academic systems (Martin, 2016) and help less privileged scholars have a platform for their research and access to a network of like-minded academics.

Further research, particularly longitudinal studies, on faculty writers may help to further illuminate rank's impact on plagiarism and definitions of academic integrity. Previous scholarship has argued that "developing communities of practice that value creative and reflective writing" help encourage original ideas and prevent plagiarism in students (Evering and Moorman, 2012, p. 41). What might those communities of practice look like in professional academic circles? Academic conferences serve as a nexus for writing practices and, sometimes simultaneously, as a host for what Martin (2016) calls "exploitative practices in academia," such as competitive plagiarism, exploitation, and misrepresentation (para. 55). Understanding how text-matching, plagiarism, and self-plagiarism operate in activity systems like academic conferences could help other conference organizers or academic organizations be clearer in their expectations of writing behaviors.

Endnotes

¹This name is a pseudonym for the authors' university.

²All data used in this article was collected in accordance with the guidelines of Middle East Engineering University's human subjects review board.

³Turnitin has also come under criticism for the academic ethics its service promotes. Carbone (2001) has summed up the views of many educators, particularly those who work closely with writing: "The service is not about teaching, it's about catching. [...] It assumes the worst about students and the worst about teachers." Because faculty members who use these services require it of their students, often before even reading

the assignment, “there is no way to honestly call it anything other than forcing students, most of whom we have no reason to suspect, to prove their innocence” (Zwagerman, 2008, p. 694). For faculty writers whose works are submitted to Turnitin, as well as the students who often have no other choice but to hand over their writing to the service, those original works serve as marketable capital for Turnitin’s database, and no recourse for authors to share in these profits exists. Although the irony of taking something from someone else for your own gain (not to mention huge profits) has not been lost on critics of plagiarism detection and text-matching services, legal challenges to Turnitin have failed (Goldman, 2008).

⁴Koshy (2009) noted that the misinterpretation of Turnitin’s results can effect its implementation in educational settings in the MENA region, and she called for further communication with students about what the text-matching results mean. Stapleton (2010) also advocated for discussion with students about Turnitin as a tool, as his study found it was an effective deterrent for plagiarism, particularly among graduate students for whom English is a second language.

Availability of data and materials

The data used in this study cannot be shared due to the restrictions in the researchers’ IRB approval.

Authors’ contributions

TB coordinated the project and provided the data for analysis. AH wrote the literature review, conclusion, and some of the analysis, and was also the editor of the piece. ES wrote the introduction and analyzed the data with Tableau software. LS wrote the methods section. All authors read and approved the final manuscript.

Competing interests

The authors do not have any competing interests.

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