## DEGREES OF DECEIT RESEARCH PROJECT: PRELIMINARY FINDINGS

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## KEY WORDS

academic integrity, admission fraud, fake credentials, topic modeling, web-mining

We plan to outline our preliminary findings for the Degrees of Deceit research project in this presentation, which began in summer 2020. This project materialized due to a collaboration on a webinar about admissions fraud and fake credentials within higher education in Canada. In researching for this event, we became aware of the lack of academic literature on this topic despite its appearance in early literature dating back to 1883. The notion of diploma mills or "the sheepskin shop" was highlighted as tainting education (Thompson, 1883, pg. 256). However, diploma mills frequently appear in the media as organizations that manufacture qualifications for a price. This discovery was the starting point for the project. This presentation, specifically, will focus on two data sets collected to further understand the problem through the distribution of a survey; and web-mining.

A survey was distributed to professionals working in admissions and registrarial services within post-secondary institutions and academics participating in hiring committees. A hundred respondents, primarily from Canada, responded to the survey. There was one respondent from outside of Canada (Afghanistan). Nine out of the thirteen provinces and territories were represented, which provides a data sample from coast to coast within Canada. This sample revealed the inner workings of the processes that govern admission services, transcripts, and hiring. Moreover, it highlighted gaps, pain points (e.g., workload issues), and reflections on where respondents believe this sector is moving in the next five to ten years.

The most startling trends uncovered were that only 45.3% felt confident detecting fake documents,

even though 67.7% received training, and 87.1% do not use an evaluation service to verify documents. Workload issues were reported for 90% of respondents, and 79.4% felt that additional resources would help. "Admissions change" was frequently discussed amongst peers (83.7%). This question intended to measure whether this topic was discussed amongst the collective versus a personal view. The notion of change could be applied to digital solutions, the need for refined processes, or government regulation. Digitalization was earmarked as the way forward in subsequent questions. However, it needs to be accessible and affordable so that these tools can cross the globe consistently and impact change for the entire process. Adoption was indicated as a barrier in the pursuit of a technical solution in the survey results.

Information on hiring practices was also captured, and 63.6% check the credentials of those they are hiring. Attewell and Domina (2011) reported that people who fabricate credentials have often attended the post-secondary institution in which they are claiming to have the degree. Nevertheless, for whatever reason, they did not succeed at completing all the requirements for their program (Attewell and Domina, 2011).

Alternatively, while the first data set examines our internal processes and responses to admissions fraud and fake documents, the second; explores thirty websites that sell fake degrees and credentials online. These websites were found by searching "buy fake degree" on Google. This search query was not meant to quantify the number of services available but rather to use as a filter to isolate a subset

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of sites to analyze. Data was scraped from the various layers of the website, from the elements to order the fake degree, the policies that police the business transaction, to how the service is justified or marketed to potential buyers. The data is used to build a topic model that brings semantic patterns to the surface using unsupervised machine learning (Blei, Ng and Jordan, 2003). Early results of this modeling will be presented.

These websites are accessible and affordable based on our in-depth examination of thirty websites. A four-year degree for an international student could cost upwards of \$160,000 in Canada. However, a made-to-order degree can cost anywhere between \$150 to 200 US dollars online. The same attributes of

accessibility and affordability were gaps that surfaced in the survey with the prospect of technology to combat fake credentials. Our objective in collecting this data was to learn about such services in order to compare them with currently applied solutions or those being considered for the future.

In summary, our research confirms the vulnerability to admissions fraud and fake credentials within higher education in Canada as the services available are manufacturing machines. The preliminary findings of this research will be of interest to higher education, government, those developing software to circumvent credential fraud, and researchers working in the area of academic integrity.

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