Chapter 32
An ISM Approach to Modeling: Antecedents of E-Cheating in Higher Education

Zeenath Reza Khan
https://orcid.org/0000-0002-3386-4222
University of Wollongong in Dubai, UAE

Sreejith Balasubramanian
Middlesex University Dubai, UAE

ABSTRACT

Student cheating is a problem that has been plaguing academics globally for decades. With the infiltration of technology, this has taken on a newer more sinister form, termed e-cheating. E-cheating is electronic cheating that encompasses variety of previously known and new practices involving variety of technologies students engage in when breaching academic integrity (AI). This chapter presents the herculean task of compiling and then proposing a comprehensive factor model to pave way for better understanding of antecedents that may influence students' likelihood to e-cheat. This chapter attempts to use interpretive structural modelling (ISM) as a scientific approach towards developing such a proposed model after conducting an extensive content analysis to collate and provide a comprehensive list of factors and models already existing spread across hundreds of academic papers. This chapter is positioned as the first such attempt to provide a model of factors that is of significant benefit to stakeholders such as teachers, students, managements, government, and even employers so that they can develop an understanding of their roles in helping or hindering such behavior in the future.

INTRODUCTION

Academic misconduct is not new. For decades, Higher Education Institutions (HEIs) have been trying various means to minimize and eliminate this threat (Boehm, Justice & Weeks, 2009). Rapid technological advancements have only made the situation more complicated for HEIs as students are finding new technology-enabled means to cheat, commonly referred to as e-cheating (Khan & Samuel, 2007;

DOI: 10.4018/978-1-6684-6315-4.ch032

Eastman, Iyr & Reisenwitz, 2008). Curtailing e-cheating is even more challenging given that students are encouraged and often required to use the latest technology both in and out of classrooms to equip them with the necessary skills to secure employment or progress in their future workplace (Jones, Reid & Bartlett, 2008). Recent studies have shown that about 70% of the students who have cheated in academia have used some form of electronic means to cheat, such as smartphones, blue-tooth, smartwatches, and other information communication technologies (Bain, 2015).

With the technological advancements expected to be double over the next few years (Rossing, Miller, Cecil, & Stamper, 2012), curbing e-cheating is a must for HEIs to ensure tech-savvy students do not gain advantage over their peers, and e-cheating incidents are not degrading the reputation or value of the degree from the HEI. Unfortunately, despite the significance of the issue, academic enquiry specific to e-cheating is relatively scarce (Miller, Shoptaugh & Wooldridge, 2011). Moreover, the limited studies that have attempted to tackle e-cheating have taken narrow perspectives looking at only certain antecedents at any one time such as difficulty of subject (McCabe, 2001), peer-pressure (Christensen-Hughes & McCabe, 2006), parents attitude to cheating (McCabe, 2001), level of detection and penalty (McCabe, Feghali & Abdallah, 2008) among a host of others. This lack of holistic understanding carries the risk that academics and universities could mistakenly be addressing and even prioritizing the wrong issues and neglecting aspects that have more significance.

In short, e-cheating, just like any form of academic cheating needs to be dealt comprehensively from multiple perspectives. This formed the motivation of this research which attempts to develop a holistic understanding of the antecedents of students' likelihood to e-cheating. The specific objectives of this study were: (1) to identify the relevant factors of e-cheating and systematically classify/group them to theoretically relevant constructs; and (2) to scientifically develop a comprehensive e-cheating model that captures the interrelationships between the constructs.

The rest of this chapter is structured as follows: in the next section, the comprehensive review of literature related to academic cheating is executed to delineate the important e-cheating factors and classify them into theoretically and managerially relevant constructs. Next, interpretive structural modelling (ISM), the scientific method adopted in this study to develop the e-cheating model is detailed. The developed model is presented and discussed in section four. This chapter concludes with implications, limitations and suggestions for future research.

Identification of E-Cheating Factors and Construct Development

A two-stage approach was used in the identification of key factors and for developing them into meaningful constructs. In the first stage, given the limited number of studies specific to e-cheating, the search was expanded to include generic studies on student cheating behavior to delineate those e-cheating related factors that we have come across in these studies. The library databases such as Scopus, ProQuest, EBSCO, Science Direct, Emerald and Elsevier, Taylor and Francis, Springer and Wiley Interscience were used to ensure complete coverage of the literature. Some of the indicative keywords used for the search included 'student cheating', 'plagiarism', 'copying and pasting', 'technology and cheating', 'academic integrity', 'ethics in education', 'ethics in academia', 'why students cheat', and 'how students cheat'. The search returned more than 100 studies.

Procedural steps suggested by Mayring (2000) was used as the basis for the content analysis of the identified studies. During the content analysis, potential antecedents (factors, agents, determinants, enablers) to e-cheating was identified. In the second stage, a review of existing frameworks and models in