

# Navigating Academic Integrity in the Digital Era: Challenges, Strategies, and Solutions

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## Abstract

In contrast to the slower pace of adopting online learning seen in the previous decades, the COVID-19 pandemic brought about a rapid and widespread shift to online education. However, this sudden transition also led to an increase in academic dishonesty, posing a threat to the integrity of online courses. Many educational institutions and educators are uncertain about how to effectively respond to these new forms of cheating. This research aimed to understand the recent changes in academic dishonesty based on the latest literature. The study revealed concerning trends: new methods of contract cheating and collaborative cheating, shifting perceptions of cheating among students, a reported increase in online cheating, and a lack of strong institutional efforts to address these challenges. Despite these difficulties, the study also identified a range of potential solutions, both innovative and well-established, that can help counteract the problem of academic dishonesty, provided there is a willingness and the necessary resources to implement them.

**Keywords:** Academic Dishonesty, Online learning, Contract Cheating, Cheating

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## 1. Introduction

Over the past two decades, online learning has experienced gradual growth. However, the COVID-19 pandemic triggered an abrupt shift from in-person classes to online formats on a massive scale. This affected around 1.6 billion students (94% of the student population) in 190 countries (Paudel, 2021). While online learning offers various advantages, this hasty transition has brought forth numerous challenges. One notable and concerning challenge in online learning is the perceived increase in the severity, complexity, and prevalence of academic dishonesty when compared to traditional classrooms. If these concerns are valid, it could have serious implications for the reputation of educational institutions, job satisfaction among faculty, the credibility of graduate certifications, and even the societal cohesion (Norris, 2019; Chirikov et al., 2019; Valizadeh, 2022). To address these potential issues, this study conducted a review of recent literature, focusing on changes in academic dishonesty, particularly in the aftermath of the COVID-19 pandemic. The research suggests that there might have been significant shifts in how academic dishonesty is understood, the tactics employed by students, and the scale of cheating in online environments. Additionally, the study highlighted a range of solutions proposed in recent literature. These solutions include innovative digital tools, re-evaluation of teaching strategies, and the cultivation of integrity-focused institutional cultures.

A contemporary understanding of academic dishonesty involves "any action aimed at falsely presenting one's academic work as original, encompassing behaviors such as deceit, using unauthorized materials, collusion, and plagiarism" (Sendir & Maxwell, 2020, p. 2). Nevertheless, the interpretation of academic dishonesty, along with its various elements, can significantly differ among students, educators, and institutions. Notably, students seem to reinterpret the notion of cheating based on their prior educational encounters and interactions with peers (Norris, 2019). This observation raises the question of whether online learning has reshaped the concept of academic dishonesty, creating uncertainty around what specific actions should be considered violations.

Several theories have been put forth to explain why students may engage in dishonest practices or abstain from them. The first theory is the 'Theory of Planned Behaviour,' which proposes that dishonest behaviour stems

from a combination of a student's personal values, norms influenced by peers and society, as well as perceived control factors like obstacles and potential punishments (Dendir & Maxwell, 2020). The second theory, known as the 'Fraud Triangle Framework,' posits that cheating behavior is influenced by three main factors: incentive, opportunity, and rationalization (Dendir & Maxwell, 2020). Lastly, the 'Deterrence Theory' emphasizes the significance of the severity, certainty, and swiftness of punishments in deterring individuals from breaking rules or laws (Chirikov, 2019, p. 3). The literature points to various common causes, typically categorized into individual and situational factors (Adzima, 2020). These factors encompass demographics, the physical environment, cultural values, and a country's corruption and developmental level (Adzima, 2020; Krienert et al., 2021). Stress is also identified as a crucial factor (Krienert et al., 2021; Herdian et al., 2021), particularly relevant because many students reported negative impacts on their mental health due to the challenges of adapting to online education during pandemic lockdowns (Chakraborty et al., 2021).

## **2.0 Literature Review**

### **2.1 Trends in Online Cheating in Ghana**

#### **2.1.1 Scale of Online Cheating**

The literature initially delves into whether online education leads to a higher incidence of academic dishonesty. However, the task of comparing cheating rates between online and offline learning proves to be more complex and less conclusive than initially anticipated (Peterson, 2019). Some studies discovered that students reported more frequent instances of cheating in online exams, even though they typically had more on-site exams on average (Janke et al., 2021; Valizadeh, 2022). Conversely, the perception that online cheating occurs more frequently garnered affirmative findings (Herdian et al., 2021; Valizadeh, 2022; Paudel, 2021). Notably, as of 2019, 60% of faculty members believed that online cheating was more prevalent (Jaschik & Lederman, 2019). Paudel (2021) contended that 43% of online students acknowledged cheating as a significant concern. This perception of the "dark side of remote learning" is also echoed in recent media coverage, such as articles by CNBC and the Los Angeles Times (Subin, 2021; Gallagher, 2022; Bilen & Matros, 2021). This existing perception is a noteworthy issue, as when students witness their peers engaging in cheating, it tends to increase the likelihood of future cheating incidents (Norris, 2019; Krienert et al., 2021; Chirikov et al., 2019; Dyer et al., 2020; Valizadeh, 2022). In essence, this widely held perception appears to be contributing to the normalization of online cheating.

#### **2.1.2 Structural Flaws of Online Learning**

A significant concern highlighted in the literature is the erosion of traditional safeguards against online cheating. Ghizlane and Reda (2019) emphasized that the absence of continuous and automated monitoring systems, coupled with inadequate authentication measures, poses a serious challenge for online proctoring. Unlike physical classrooms, definitively proving a student's cheating without specialized tools is considered nearly impossible (Bilen & Matros, 2021; Erguvan, 2021). Numerous studies have identified heightened temptations to cheat due to factors like the lack of direct supervision, technical difficulties, absence of effective proctoring, and a perceived decrease in commitment to upholding integrity in online environments (Burgason et al., 2019; Peterson, 2019; Valizadeh, 2022). Moreover, the ready access to the internet has provided additional incentives for cheating (Paulet, 2020). This was strikingly evident during the 2020 Advanced Placement Examinations in the USA, which were conducted without proctoring. The frequency of Google searches for keywords related to exam topics surged exponentially (Bilen & Matros, 2021). Students also received rewards for their dishonest behaviour. Research indicates that proctored online exams typically lead to a half-grade increase in GPA (Dendir & Maxwell, 2020; Herdian et al., 2021). Predictably, these rewards have fuelled heightened motivation and rationalization for engaging in academic dishonesty, fostering greater scepticism about the education system (Burgason et al., 2019). Bilen and Matros (2021) argued that, according to the concept of the "simultaneous-move game," many students are weighing the benefits of online cheating against the risks (Dyer et al., 2020; Valizadeh, 2022).

#### **2.1.3 Revival of Contract and Collaborative Cheating**

Recent research has raised concerns about the resurgence of cheating practices, particularly in the forms of contract and collaborative cheating. One form, known as "Ghosting," involves having someone other than the registered student complete assignments or take exams, circumventing plagiarism detection tools (Ralston, 2021). This practice has gained momentum due to pressure for high grades, a lack of effective online safeguards, and student burnout (Hollis, 2018; Erguvan, 2021). In addition, collaborative cheating has evolved, with students using study-helper websites, file sharing, and digital communication apps to engage in unauthorized cooperation (Harrison et al., 2020). These emerging methods of cheating are challenging to manage and pose a serious threat to the integrity of online education.

#### **2.1.4 Shifting Perceptions of Academic Dishonesty**

There is a notable shift in how academic dishonesty is perceived, leading to a disconnect between student and faculty perspectives. The online learning environment's isolation and perceived lack of accountability have contributed to an attitude among students that they can define acceptable practices themselves, rather than adhering to institutional standards (Burgason et al., 2019). This shift has led to reinterpreting actions such as using notes

during tests as less serious forms of cheating (Rodriguez et al., 2021).

#### **2.1.5 Faculty and Institutional Neglect**

The recent literature highlights a lack of proactive measures taken by faculty and institutions to address academic dishonesty. A significant number of faculty members do not provide clear academic integrity policies, and they underutilize technology to prevent cheating (Paultett, 2020). Institutions, similarly, often lack effective measures to curb cheating and may not consistently enforce honour codes (Hollis, 2018; Stephens, 2019). This lack of support and perceived absence of consequences contribute to an environment conducive to cheating.

#### **2.1.6 Solutions to Online Cheating-High Technological Solutions**

To combat online cheating, recent studies propose high-tech solutions that leverage advanced technologies. For instance, AI agents that monitor behaviour and detect anomalies have been suggested (Tiong & Lee, 2021). Others have explored the use of AI recurrent neural networks to track student progress and identify potential fraud (Kamalov et al., 2021). Biometric e-authentication programs utilizing facial and voice recognition, keystroke dynamics, and stylometry have also shown promise (Rodriguez et al., 2021). These advanced solutions aim to enhance the detection and prevention of cheating, thus restoring student trust in online assessments.

#### **2.1.7 Solutions to Online Cheating-Lower Technological Solutions**

In addition to high-tech solutions, lower-tech measures have demonstrated effectiveness against cheating. Manual webcam proctoring, verification methods, existing proctoring software, scanning software, and lockdown browsers have all been proposed as viable approaches (Hollis, 2018; Chang et al., 2021). While these measures might not be comprehensive on their own, they contribute significantly to the prevention of academic dishonesty.

#### **2.1.8 Cultures and Codes of Integrity**

Cultivating a culture of academic integrity through clear communication of rules and institutional values is emphasized in recent literature. Implementing academic integrity courses and enforcing strong honour codes can act as effective deterrents against cheating (Stephens, 2019; Nguyen et al., 2020). Establishing an environment that upholds integrity and adheres to well-defined standards helps to standardize the definition of cheating across different groups.

#### **2.1.9 Educational Strategies and Assessments**

Educational strategies proposed to counter academic dishonesty involve diversifying assessment methods. Suggestions include incorporating written assignments, interactive discussions, and projects to reduce reliance on high-stakes exams (Paultett, 2020). Employing randomized question banks and simultaneous exam times can further discourage cheating (Norris, 2019; Nguyen et al., 2021). Integrating open-book exams, essay exams, and project-oriented assessments are also recommended to encourage critical thinking and discourage cheating (Janke et al., 2021; Valizadeh, 2022).

### **2.2 The Role of Teachers**

Faculty members play a pivotal role in detecting and preventing academic dishonesty. They can conduct periodic searches to remove unauthorized content uploaded to external resource websites (Krienert et al., 2021). Building a personal understanding of each student's work patterns can aid in identifying signs of cheating (Erguvan, 2021). Additionally, faculty can continually update content to counter the effects of online sharing (Peterson, 2019). Adopting an approach that views academic integrity as a developmental process, supporting students to improve their skills and ethics, is also suggested (Stephens, 2019). It is important for faculty to communicate clear policies on cheating and maintain confidentiality in detection methods to prevent adaptation by students (Chirikov, 2018; Bilen & Matros, 2021). If necessary, engaging anti-cheating experts to train faculty, enforce integrity policies, or ensure institutional accountability can be beneficial (Hollis, 2018; Ralston, 2021).

### **3. Methodology**

This study employed a narrative literature review using thematic analysis to uncover the most recent trends and potential gaps in understanding academic dishonesty (Pautasso, 2019). The review focused on contemporary discussions about changes in the definition, methods, and solutions related to academic dishonesty, including aspects like cheating, plagiarism, and collusion. The sources analysed were primarily journal articles and textbooks from prominent databases such as Google Scholar, Jstor, ERIC, and EBSCOhost. The study primarily concentrated on articles published between 2019 and 2023, recognizing the rapid changes in online systems and the unique circumstances brought about by the COVID-19 pandemic. Older literature was often deemed less relevant due to these dynamic shifts. However, newer articles frequently relied on older sources, possibly reflecting the perception that the issue of online cheating is still relatively new (Adzima, 2020). These sources comprised a variety of research approaches, including surveys, interviews with students and faculty, case studies of specific universities, and experiments involving anti-cheating systems. It's important to note that many studies acknowledged limitations, such as the potential biases in survey responses (Valizadeh, 2022), the small scale of some studies (Adzima, 2020; Chirikov et al., 2019; Erguvan, 2021; Krienert et al., 2021), and the challenge of generalizing findings when focused on a single country (Chirikov et al., 2019; Valizadeh, 2022). Nevertheless, despite these

limitations, all the evaluated sources contributed significantly to the exploration of academic dishonesty in the context of online learning.

#### **4.0 Discussion and Conclusion**

This study has highlighted a variety of emerging trends and solutions regarding academic dishonesty online, within recent literature based on surveys, interviews, case studies and experiments, with the results summarized in the table below.

##### **4.1 New Trends in online Cheating**

Recent developments in the realm of online education have brought to light a spectrum of concerning trends related to academic dishonesty. While perceptions among students and educators indicate an uptick in cheating instances, the actual measurement of such incidents has yielded inconclusive results. A critical issue arises from the potential normalization of online cheating, stemming from reduced direct proctoring and authentication processes for both students and assessments. Of particular concern is the resurgence of certain practices like ghost-writing and the rise of supply-helper websites. These platforms enable students to outsource assignments and exams, thus bypassing traditional anti-plagiarism measures. Additionally, unauthorized communication among students through apps further compounds the issue of academic dishonesty, fostering an environment conducive to collaborative cheating.

A notable shift in student attitudes toward cheating has been observed, with an increasing number of students perceiving certain behaviours as non-cheating. Collaboration during assessments, referencing external sources without citation, and utilizing the internet during exams without proper attribution are among the behaviours now seen as less culpable. Such shifting perspectives challenge conventional notions of academic integrity.

Moreover, critiques have been levelled against the academic community for its lax response to these challenges. Faculty attitudes, institutional support, and adherence to honour codes have come under scrutiny. Reports indicate that a substantial percentage of educators lack rigorous anti-cheating policies and do not actively search for unauthorized content. The failure to implement robust safeguards and the absence of a resolute approach to maintaining academic integrity further exacerbate the issue.

##### **4.2 Potential Solutions**

Efforts to combat the escalating challenge of online cheating have led to the exploration of novel solutions, leveraging advanced technologies and reimagined educational strategies. Experimental trials involving biometrics, smart authentication systems, and auto-proctoring mechanisms have demonstrated promising results in bolstering the detection of cheating instances within the online learning environment.

Practical recommendations have emerged as potential tools to fortify the integrity of online assessments. These include the adoption of webcam proctoring, which can provide visual monitoring of students during exams. Lockdown browsers, designed to restrict unauthorized internet access, stand as a formidable ally in the fight against cheating. Proctoring software and plagiarism scanners, integrated seamlessly into the online education ecosystem, contribute significantly to maintaining academic honesty.

Beyond technology, the cultivation of cultures of integrity and the transparent communication of rules emerges as pivotal strategies. Fostering an environment where academic integrity is intrinsic helps pre-empt instances of dishonesty. Clearly articulated guidelines serve as beacons, guiding students and educators alike in upholding ethical conduct.

Educational strategies have also witnessed innovative adaptations to curtail online cheating. The exploration of open-book exams, which assess higher-order thinking skills, reshapes the landscape of assessment. A shift towards more frequent, albeit lighter-weighted exams enhance engagement and reduces the pressure to resort to dishonest means. Open-access folders, facilitating the exchange of legitimate resources, offer a collaborative alternative to unauthorized sharing.

#### **5.0 Conclusion**

Academic dishonesty poses a significant challenge to the educational quality of institutions, and while complete eradication may be elusive, neglecting to address it could tarnish the credibility of online education. While certain institutions are making efforts to grapple with this issue, the landscape of online education has undergone rapid transformations, and the research surrounding academic dishonesty in the online realm is still in its infancy. It's important to acknowledge that this study has its limitations, primarily stemming from its reliance on literature sourced from surveys and small sample sizes. Consequently, it is recommended that further research be conducted to quantify actual instances of online cheating, examine the impact on students, faculty, and the perception of cheating, and explore innovative technological solutions to enhance the detection and prevention of academic dishonesty in the online learning environment.

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