Digital Fraud in the Academic Sphere - An Empirical Study on Preventive Strategies

Dr. Haoues Hadjer[1*]

[1*]Laboratory for Human Resource Planning and Performance Improvement , University of Mohamed El bachir El Ibrahimi , Bordj Bou Arreridj –Algeria

Corresponding author : Dr. Haoues Hadjer
*E mail : hadjer.haoues@univ-bba.dz

ARTICLE INFO	ABSTRACT
	The current study aimed to show the methods of cheating caused by the digital transformation so that we focused on the current situation during the examination period in particular, because the phenomenon of cheating has an impact on the violation of the integrity of academic practice at the global and local levels, and made higher education in a state of alert and feeling threatened by the deterioration of its quality, and questioning the credibility of its academic performance. In addition to the resulting risks and social gaps, we tried to adopt a set of solutions and preventive strategies that allow us to control such deviant behaviors and take them seriously in addressing and deterring them before they occur. **Keywords:** digital fraud, academic honesty, digital transformation.

Introduction

The desire for success and academic achievement is instinctive, which makes the pressure of academic expectations push some students towards cheating to achieve good grades.
Students feel pressured and because of this pressure, they use wrong means to get good grades in the exam. Misconceptions about assessment methods, or rather academic assessment, create a fear of failure in their minds, which pushes them towards practices that violate academic honesty. Therefore, cheating in exams in general is one of the most serious immoral and negative practices that threaten the credibility of educational institutions and question their seriousness, which necessitates subjecting this phenomenon, which has settled in educational circles in general and the university environment in particular, to study it and identify its causes and forms, which have also become This is after most students have retreated from traditional cheating methods and preferred the growing technological development that the world is currently witnessing, with which the methods and methods of cheating have evolved significantly, in innovative and varied ways.

He is ashamed to say that some teachers and professors may help students cheat so that they can improve their performance in school. But they don't think for a moment that they are destroying their own lives for their own benefit. If a teacher or professor really wants to improve their performance, they should put effort into their teaching instead of helping students with exams and destroying their lives.
Therefore, today we must identify the mechanisms and strategies that will combat these practices that threaten the integrity of academic work, and reduce them as a dangerous phenomenon that affects society and its institutions due to its inconsistency with the ethical principles of society.

Presentation of previous studies on digital fraud:

Jensen et al. (2002) found that younger students were more likely to cheat than older students. In a similar vein, Franklinstocksonstead (1995) found that students' cheating was a function of their age. Petrakopartulak (2014) conducted a study with health students and found that cheating was moderately prevalent among the 1088 students surveyed. They also found that senior students were more honest than freshmen. The main motivation for cheating was to get a fair pass on exams or to get better grades.

Gender is another variable that is believed to influence cheating behavior. According to Maccabiotrevino (1997), gender-based socialization was used to account for gender differences, arguing that women tend to socialize to conform to rules. The results of the research findings are actually inconclusive. Some studies have found that males have a stronger tendency towards cheating than females. Two of these studies are Kobayashiofukushima (2012) and Genero and McLeod (1995). Other studies have found that females tend to cheat more than males (e.g., DePalma et al. (1995)). Finally, some studies indicated that there were no statistically significant differences between males and females in terms of cheating (e.g., Ahmadi, 2012). A study conducted with physical education and sports students, Kayşoğlu and Timil (2017) found that students had higher than average attitudes towards cheating and that gender had no effect on the participants' elevated tendencies) examined the cheating behaviors of students at the Faculty of Applied Arts and both descriptive and inferential statistics were used to analyze the data. Descriptively, copying answers was the most common type of cheating during exams. Jensen et al. (2002) found that cheating behavior was more prevalent among male students than females, attributing these differences to the tendency of males to take more risks than females.

The influence of friendship is also believed to affect students' cheating behavior. In this regard, Chapman et al. (2004) found that cheating is more common among friends than among acquaintances alone. In other words, students tend to cheat more in situations where more friends are gathered together.
The field of study has also been interpreted as a potential determinant of cheating behavior. Chapman, et al. (2004) found that cheating was more prevalent among marketing majors compared to their peers in other business-related majors. In Mensahu et al.'s (2016) study, field of study played an important role in that engineering students self-reported more academic dishonesty than hospitality students. Kaishoglotimel (2017) confirmed a relationship between year of study and attitudes towards cheating. The results of their study also showed that the type of department students studied in did not affect their attitudes in significantly different ways.

Another demographic variable that has been hypothesized to influence cheating is achievement which is often operationally defined as students' grade point average. Maccabiotrevino (1997) admits that research results are inconsistent in this regard. He found that low achievers cheat more than high achievers based on the theoretical reasoning that low achievers "have more to gain and less to lose.
Finally, Basso et al. (2006) found that cheating varied depending on the type of assessment which was exams and homework in their study. They also found that the belief that stress relief is more likely to lead to cheating on the part of students.

Problematic:
In a survey of 24,000 students in 70 high schools, 64% of students admitted to cheating on a test, 58% admitted to plagiarism, and 95% said they had participated in some form of cheating, whether it was on a test, plagiarizing, or copying homework."

The statistics on cheating among university students are very similar to the above-mentioned statistics. On-campus surveys indicate that 70 percent of students admit to some form of cheating in college. These survey results, which have remained consistent over time, represent a variety of behaviors (aljazeera.net, 2018).
Today's students are using innovative and illegal methods to obtain good grades and more sophisticated ways to ensure it. They are resorting more and more to new technologies to achieve their goal, including special headphones, internet-connected watches, and leaking topics through social networks, making it necessary to develop methods and control measures that match the magnitude of the challenge.

A Spanish study collected and analyzed search engine activity data on exam cheating in Spain for a five-year period between 2016 and 2020, inclusive. The data indicates that students are looking for information about ways to cheat on exams, including how to create cheat sheets. Most strikingly, the results show a significant increase in requests for information about online exam cheating during the COVID-19 timeframe and the Spanish lockdown period. Based on the results, academic institutions in other regions should be cautious about the opportunities for their students to commit exam fraud (Rubén Comas, 2021).
There are also studies that have found that online assessments pose high risks to academic integrity. Academic publisher Wiley (2020) surveyed nearly 800 university instructors from around the world and found that 93% of respondents believed that students have more opportunities to cheat on online assessments.

In Algeria, during the 2016 baccalaureate exams, subjects were leaked online, and as a result, more than 500,000 students had to retake the exams. It was described as an unprecedented scandal due to the number of subjects whose exams were leaked, prompting the government to announce an extraordinary session between June 19 and 23 in seven subjects whose questions were leaked (Abdelhamid Ben Mohamed, 2016).
Therefore, it is clear that this phenomenon is occurring at an alarming rate at the global level, and its consequences are dire, requiring us to research preventive mechanisms and solutions to combat all forms of digital fraud and electronic cheating, from which we formulate the following question:

What is the reality of the phenomenon of digital fraud? Are there sufficient mechanisms to eliminate e-fraud?

Hypotheses:
✓ Digital fraud is increasing as its forms increase.
✓ There are traditional anti-fraud and deterrence mechanisms in academia.
✓ The level of prevention depends on digital fraud countermeasures.

Objective of the study:
Recognizing and confronting cheating methods and techniques to reduce this dangerous phenomenon in educational and university settings, especially because of its implications for the credibility of honest academic practice.

Importance of the study:
The importance of the current study lies in developing preventive strategies to combat the phenomenon of cheating and digital fraud in the academic environment because of its negative effects on learners and the reputation of academic institutions alike.

Procedural definitions for the study:
Digital fraud:
It is obtaining answers in exams in illegal and deceptive ways without relying on oneself but using modern electronic or digital devices in order to obtain good marks that guarantee success and academic achievement.
It is a negative ethical value that indicates resorting to deception, forgery, fraud and may reach the level of plagiarism in scientific research.
Digital transformation:
It is the integration of digital technology and artificial intelligence techniques in all fields to make them more flexible in the ability to adapt to the current scientific changes.

Theoretical background of the study
Psychological theories explaining the behavior of cheating and fraud:
The psychopathic personality suffers from an issue in its psychological compatibility and social and professional adaptation, although it appears outwardly normal and stable, and it has illegal and immoral practices and methods due to the weakness of the superego, as the psychopathic person cannot always live in a state of not keeping up with the social standards and systems imposed by society, and thus repeats his mistakes permanently and does not learn from his previous experiences, although he seeks to appear ideal, and there are several theories that explain psychopathic behavior, including:

Analytic theory: Freud hypothesized that the individual's psychological system consists of three components represented by the ego, superego and id, and these components are the ones that contribute to the construction of the personality and its structure, as the psychopathic personality according to this model works according to the principle of pleasure (id) in order to avoid pain and reduce stress, it struggles to satisfy impulses, desires and instant gratification, which is what makes the individual selfish and self-centered. This is what makes the individual selfish and self-centered, and thus the use of overcoming and controlling the appetites (ego) and suppressing them, and this, according to Freud, is due to the early years of the child, where he learns the good and bad from the living environment and the rules followed by the parents, and the behavioral disorder depends on the success of the ego in resolving the conflict (ego and id) (Mohammad Al-Otaibi, 2018) (Mohammad Al-Otaibi, 2018)

Behavioral theory: Behavioral psychologists emphasize the role of learning in the emergence of antisocial or psychopathic behavior, especially events related to reinforcement and punishment, as psychopathic behavior is procedural in the sense that it develops according to changes in the environment that promote this type of behavior, and behaviorists believe that this behavior is learned in the same way as other types of behavior, specifically through direct shaping and reinforcement (Mohammed Al-Otaibi, 2018).

Cognitive behavioral theory: It is based on its interpretation of behavior on the basis of mental processes and through these processes the world around us is interpreted. It views behavior holistically, and sees the interaction between environmental influences, cognitive processes, and behavior as a mutual value or causal exchange confirmed by what happens inside the brain of mental processes and what comes out of it. This theory views behavior as the way individuals interpret the environment in which they live, and focuses on cognitive processes, mental activities, and memory instead of focusing on the observation of apparent behavior, as is the case with behaviorists (Mohammed Al-Otaibi, 2018)

Therefore, we can explain that the psychoanalytic theory believes that the psychopathic person is affected by the weak control of the ego and superego over the desires of the id, and this internal psychological motivation

is not due to external influences, while the behavioral theory believes that psychopathic behavior is learned from the environment, and this results from the individual's poor compatibility and adaptation to his environment, where he develops psychopathic behavior, The cognitive behavioral theory believes that the cognitive components are the ones behind human behavior, if these components are positive, positive behavior is produced, and if these components are negative, negative behavior is produced.

Social theories explaining cheating:
There are many social theories that can explain the phenomenon of cheating among learners, and in this part of the research we will address the following two theories:

Anomie theory : Durkheim believes through this theory that the weakness of standards in society and among the members of the group leads to the disruption of the social structure and the absence of order and the lack of behavior to the standards that distinguish socially acceptable behavior, which leads to the emergence of anomie or non-normativity and to conflict where social requirements and duties become contradictory and due to the inability of behavioral rules to control the behavior of individuals, this leads to deviant behavior.

Merton's theory : Merton's theory addressed the topic of social deviance more than the topic of crime, as he believes that society emphasizes constructive cultural goals on the one hand, and on the other hand, it sets acceptable and legitimate means to achieve the goals of society, such as education, work, collection, and therefore any behavior that does not respect these values is deviant behavior, so the stage of anomie appears when the person faces the pressures of social and social construction and the pressure of success and achievement of goals. In this regard, Merton says: "The conflict between institutionalized means and culturally defined goals causes non-normativity." (Maimouni Kahina, 2020)

Educational integrity and new technology:
By demanding a shift from traditional teaching, learning, and assessment methods that focus on memorization to a model that emphasizes critical thinking, analytical skills, and issue resolution, educational technology represents a direct challenge to academic integrity as we know it, but also an opportunity not only to increase academic integrity but also to improve student outcomes. For example:
- Promoting the honest and responsible use of information: By using AI as another resource, similar to textbooks or research papers, students are encouraged to handle information honestly and responsibly. AI can help gather information and organize ideas, but the focus is on the student's ability to critically interpret, analyze, and apply this information. This fosters an environment where students learn to use AI ethically, reinforcing the values of honesty and responsibility.
- Building trust through holistic assessment methods: The shift from traditional tests to continuous project-based assessments helps create a more comprehensive and fair assessment system. This approach supports diverse learning styles and backgrounds, thereby maintaining fairness and equity in the educational process. By moving away from high-pressure, one-size-fits-all exams, teachers demonstrate confidence in their students' abilities to demonstrate knowledge and skills in different ways, fostering trust.
- Promote responsibility in learning: Encouraging the use of AI in education, rather than suppressing it, instills a sense of responsibility in students to use the technology ethically and effectively. It prepares them for a future where AI is an integral part of the professional landscape, and teaches them to be responsible and creative users of AI-generated content. (Philippa Hardman, 2023).

Cyber fraud in the age of digitalization:
It is clear that this digital transformation is a double-edged sword and that practicing using it a lot may be a hindrance in dealing also with traditional methods that we cannot get rid of overnight, especially since today's students have become proficient in using it at a high level of efficiency of use and therefore the concept of digital competence that the European Union was keen on and included it among the eight criteria for the new century competencies, where this competence is defined as : "the competent and critical use of information society technology for work, well-being and communication, which relies on the basic skills of information and communication technologies, with the aim of retrieving, evaluating, storing, producing, presenting and exchanging information for the purpose of communication and participation in collaborative networks through the Internet (2012), All these effects will undoubtedly affect academic integrity, as the circulation of information becomes very easy, which facilitates academic fraud, and cheating becomes possible and available, a phenomenon that is widespread in Algerian universities, as these means have become an effective means for many cheating operations, and the ease of access to information has made it a common commodity that can be inappropriately included in scientific articles and research, which, as described by Ebony and Kelly & Ebony, has reached epidemic levels   (Elizabeth & Sassi, 2016)
 This is due to the inability of universities in particular and other educational institutions to include this development in its correct courses in which it becomes an effective role in it, while its use for cheating purposes is very possible, and this is in turn due to digital illiteracy in which knowing and mastering the ABCs of working with these means becomes very difficult, due to the enormous technical development on which they depend, while using them for the simple purposes for which they were prepared is easy. (Omar Manasria, 2023)

The phenomenon of cheating continues to witness an upward trend that made it impose itself in the period of university exams, so the methods of cheating diversified and its practitioners took innovative modern techniques, which are difficult to detect, and every forbidden is desirable for the university student, so we find some cheating students competing among each other, about bringing or discovering and inventing means of cheating that are in line with the current technological development, which makes it difficult to detect them by the monitoring professors.

These means include :
- The introduction of cell phones with multiple services, so it became known as electronic cheating. An ordinary pen with a metal tip on one side and a small paper on which a summary of the parts of the course is written in a small handwriting.
- A pair of cheating glasses, containing a micro wireless headset, skin-colored and in the middle of it a video camera, which can only be seen with great difficulty, the camera transmits what the examinee reads from the question paper, to be seen by someone outside the exam hall via a laptop or phone, and then the latter teaches the examinee through the wireless headset.
- Zoom clippings, which libraries are overflowing with to copy, do not hesitate to resort to bluetooth and quitman to receive the answers when the invigilators are not looking.
- Artificial nails, some students add a small piece of paper with the lesson written on it, which can be hidden under the artificial nails.
- Tiny wireless headphones, the examinee puts the body-colored headset in the ear and receives answers from a person outside the exam hall who got the question paper from a student who left early.
- An artificial limb invented in China, where an examiner installed an artificial arm to appear to the proctors to be his hand, while in reality the human hand is fiddling with the smart cell phone for answers at the bottom of the stairs. - Printing study materials on bottles of water or drinks, to serve as a cache to be opened when needed, by printing study materials on or gluing them on
- We also find other methods, such as the miniaturization of notebooks that do not exceed one centimeter by the owners of reproduction shops, which encourages students to cheat, and facilitates the execution of their crime.
Thus, cheating in university exams has several methods, the use of which was limited to traditional techniques and modern techniques or not used long ago and still used to this day, especially by students who are new to the world of cheating, and inexperienced because of their inexperience in using modern techniques for fear of detection. (Abdul Qader Bahtan, 2016).

Local and international experiences recorded digital fraud in academic circles:
-           Cheating   with   3G   technologies   and   smart   chips
What also marked the baccalaureate exam was the involvement of many candidates in cheating, using highly advanced means with the use of third-generation technologies. This technique, which no one could have imagined, saw candidates taking pictures of the exam questions just fifteen minutes after the start of the test and posting them directly on social media, especially Facebook, to later receive answers from outside through the same technique. What is strange is that some parents were also involved with their children in the cheating, as   evidenced   by   their   provision   of   cheating   tools   to   them.
The case of cheating involving a free candidate at the "Omar Laga" exam center in Bouzaréah, using a very advanced device—a chip placed deep in the ear—which allowed her to communicate with the outside world without anyone noticing, indeed made headlines during the June 2015 baccalaureate exam.

A candidate caught red-handed sending the exam paper via "MMS" in Qadriya:
The examination center at the Moudjahid Mahmoud Secondary School in Qadriya, north of Bouira, witnessed a state of chaos that required the intervention of security services after a candidate was caught sending the exam paper using her mobile phone with "MMS" technology. She was stopped from taking the exam and expelled, an action she did not accept, causing a massive uproar in the hall by shouting at the invigilators. She only calmed down after security personnel intervened and removed her from the center while waiting for punitive   measures   to   be   taken   against   her.
All these methods and tactics have negative aspects and severe risks that affect the student themselves and their surrounding environment, so they must be confronted by developing means to detect them or, rather, means to prevent them from occurring in the first place, or at least to reduce them. (Lamia Boubidi, 2016).

Cheating with glasses and watches:
In May 2016, three Thai students used a more innovative trick to succeed in the medical school entrance exam, as they went so far as to hide small cameras in their glasses, which were connected to internet-linked watches. They filmed the exam documents with the glasses' cameras and then sent the images directly to accomplices outside, who would solve the exam and send the answers back to the connected watches for the students to illegitimately benefit from in their responses.

In the same context, in 2015, a student from the Faculty of Business Law in Geneva was caught using a connected smartwatch from which he was directly reading the lessons relevant to the exam. (aljazeera.net, 2018).

Study Methodology:
The current study relied on an inductive approach based on evidence, proofs based on scientific and research results, examples, and practical experiments.

Presentation of Scientific Studies:
First Study (2020):
This case study (from the first semester of 2020) involves Molly and Ken (a pseudonym), who are second-year science students. Due to the COVID-19 pandemic, the course coordinator changed their assessment to an open-book online exam. The exam consists of two parts, each with short answers. There are 24 hours allowed to complete the exam. This is the first time either student has taken an online exam.

After finishing the exam, Molly receives a text message from Ken. He says he has finished the test too but wants Molly to share her completed exam with him so he can compare their answers. Although Molly knows it is not right to share exam answers with another student, she sees that since Ken will only compare his answers with hers, it is okay, and she sends him a Word document of her answers.

Although Molly is unaware, Ken did not actually finish the exam. He contacted Molly because he did not know the answers, so he copied her answers, renamed the document, and sent it as his own exam.

Upon grading, the course coordinator noticed that Molly and Ken had identical answers to both parts of the question (including the identical and unusual formatting of the tables). The course coordinator investigated further and collected the exam's timestamp records online.

Molly had no prior record of misconduct. Ken was listed in the academic integrity register. AIO conducted separate interviews with Molly and Ken. Molly explained what she did, but she said she was unaware at the time of what Ken would do with the answers. She was upset by Ken's deception. Ken was fully aware of why using another student's answers was not acceptable and was also aware of the potential consequences. He was very apologetic and scared of the repercussions.

AIO noted that the students' accounts supported each other and also took into account the additional pressure, unfamiliarity with online learning, social isolation, and COVID-19.

Thus, it was found that Molly had violated the policy (cheating in exams) but as a result of a genuine misunderstanding and was penalized by losing 10% of her assessment marks. Ken was found to have a second violation (without a genuine misunderstanding) and received 0% for the assessment. (The University of Adelaide, 2020).

Study Two (2018):
This study was conducted at the end of the academic semester (Winter 2018) to determine whether cheating occurs in the Iranian academic environment. If Iranian students are found to be cheating, efforts must be made to take strict action to stop this phenomenon. Punitive measures may need to be taken.

The sample consisted of 310 students from three public universities in Iran. These students belonged to different fields. All were undergraduate students accepted in various disciplines at the university. Among the 310 students, there were 245 males and 65 females. Most of the students (55.9%) were first-year students, while the rest were second to fifth-year students.

The tool used in this study is a questionnaire designed based on insights from the literature and the specific nature of the university, consisting of four parts. The first part was related to reasons for not cheating, containing six items. The next part, which included 10 items, was related to attitudes towards cheating. The third part, which included 17 items, was related to reasons for cheating. The last part, which included 13 items, was related to methods of cheating. Overall, the questionnaire contained 46 items, with the identity of the questionnaire concealed to allow students to freely comment on the reasons and methods of cheating. The results of the study on the methods used in cheating were then concluded in the following table:

Table (1): Descriptive statistics for different cheating methods

Table 5. Descriptive Statistics of Different Methods of Cheating.

Methods	F	P
(1) Looking at other students' test sheets and copying answers	186	60.0
(2) Using notes written on pieces of paper	106	34.2
(3) Using notes written on various parts of your body such as palms or wrists	51	16.5
(4) Talking to neighboring students	172	55.5
(5) Using different signs to get answers from other students	99	31.9
(6) Changing the answer sheet with other classmates	85	27.4
(7) Using cellphones and communication tools like text messages, Bluetooth, hands-free, and so on	75	24.2
(8) Letting others look at your answer sheet	196	63.2
(9) Changing the pencil and eraser with the written answer on them, putting rolled pieces of paper inside a pen tube, or using a similar stationery	44	14.2
(10) Saving educational material in a calculator or other digital instruments	35	11.3
(11) Using resources and tests of past years	68	21.9
(12) Asking others to take the test instead of you	22	7.1
(13) Using your course notes or books at the exam session	100	32.2

Note. F = frequency; P = percentage.

It is worth noting that students wrote some other methods in the space provided for them, which we provide below:

1- One student wrote that he could get the questions at some point. Others mentioned the following:
2- Bribing supervisors;
3- Asking supervisors questions;
4- Putting paper scraps inside long hair;
5- Writing the answers to questions on a tissue and pretending to cough and use the tissue while actually cheating.
International models in prevention and control strategies: (presenting practical experiments)

2- Preventive strategies in university supervision:
Rebecca Helliwell, a writer specializing in technology on the Vox website, says that a state of paranoia swept American universities with the start of many colleges conducting exams online for fear of students cheating. This suspicion prompted the University of Washington to adopt a digital supervision system during recent biochemistry exams, via a platform called Proctorio. The monitoring system relies on artificial intelligence technology that analyzes videos to ensure that students are not cheating through a digital camera that monitors them during the exam. But one student interviewed by Hellwell expressed concerns about the privacy of the system, saying that there is no transparency about how the recorded videos of students will be used or who will watch them, and that the university should not assume that every student is a bad person trying to cheat in any way possible. (Mohamed Taher, 2020)
To make matters worse, the platform's algorithm had difficulty recognizing most students' faces, forcing them to sit in front of window lights to reveal their facial features more clearly. After the platform's software failed, the university conducted the exam online without supervision. Victor Balta, a spokesman for the University of Washington, explained the failure by saying that the university signed a six-month contract with Proctorio just a few weeks before the biochemistry exam, and professors were not familiar with the software. To avoid similar loopholes and pitfalls, some modern platforms have integrated a "human component" to give their programs a human touch. According to The Verge, a technology website, Examity uses "remote proctors" who monitor students via a digital camera while they take exams to detect any cheating attempts. These supervisors can ask examinees to show their IDs and put away their mobile phones. Examity also uses artificial intelligence to verify students' identities by analyzing their keyboard clicks to ensure that they are the ones answering the questions. Proctorio uses artificial intelligence to analyze the student's eye gaze to track whether they are looking away from their screen. Mike Olsen, the company's founder and CEO, told Vox that his company supervised 2.5 million exams last month alone, a 900 percent increase compared to the same period last year, as demand for

this type of service increased due to the coronavirus outbreak, and he expects more and more increases as the final exam season approaches. While these companies are booming right now, none of them are particularly new. While Examity and Proctorio were founded in 2013, ProctorU has been offering its services since 2008. Before the pandemic, these companies marketed their services to online and brick-and-mortar universities. With online education booming, these companies are expected to grow from about $4 billion last year to a market worth more than $21 billion in 2023. Examity, which raised $90 million last year to expand its business, according to VentureBeat, says it has used more than 500 colleges, universities, and businesses to proctor exams.

3. Countermeasures: Some students seem to hate these services, with social media often flooded with complaints criticizing the platforms as an intrusive tool. Some have even taken to campus newspapers to voice their privacy concerns. Earlier this year, students at Florida State University launched an online petition, signed by more than 5,500 students so far, protesting their college's use of Honorlock, while the University of California, Berkeley, has already banned online exam proctoring after some students complained that they didn't have high-speed internet or that their living conditions didn't allow them to take exams remotely effectively and fairly. These services aren't perfect, and it's easy to find tips and tricks online to trick remote proctoring services, including placing notes out of the way of a digital camera or hiding a secret laptop in a professional manner. But remote proctoring platforms are increasingly learning about these cheating methods and are increasingly coming up with countermeasures. On the online platform Proctorio, a "professional cheater" job has been created, a job that allows its holder to earn between $10,000 and $20,000 per year for testing and developing anti-cheating systems. With the rapid shift to the Internet, it seems that we will not see students doing their work in the same way as in the past, but rather we will see new types of cheating. Someone can be paid to study an entire course on behalf of another student, without the professor ever knowing. There is a precedent for this in China today, where after the lockdown in response to stay-at-home orders due to the pandemic, some students paid companies to complete their studies online on their behalf, according to Quartz. (Mohamed Taher, 2020)

The general conclusion of the study:
It seems that the decision to move from classroom education versus blackboards to education versus screens was ill-considered and did not foresee the psychological and social complications that this rapid change left behind. This experience was described by students and teachers regarding online or distance learning as chaotic and hasty, and was not adequately prepared. Some students, burdened with anxiety and fears, suffer from a digital gap. Meanwhile, some teachers, especially those who are not trained in online or distance education, struggle to manage their classes from home, trying to reconcile their professional responsibilities with their family duties, not to mention their lack of experience in managing their exams and protecting them from fraud and deception and digital and electronic cheating.
The future of online education, digital transformation in academia and how to develop it, still needs a lot of discussion and debate, not only in relation to cheating and fraud, but also in what it means to test students' knowledge and level of education, and their ability to achieve academic achievement without resorting to digital supports.

Preventive mechanisms and strategies to protect against digital fraud:
- Always remind learners of academic honesty by asking them to sign a special academic honesty form before taking the exam;
- Give the electronic exam to all learners at the same time, which helps to reduce the possibility of transferring questions or solutions to learners who take the exam later;
- An appropriate time should be set for the exam so that learners can answer without the pressure of the time factor, and not give extra time so that learners can cheat on a large scale;
- Random questions should be used from the question bank so that a variety of questions appear for each learner. This is done by taking questions from the question bank so that the questions are classified into categories according to their level of difficulty;
- The pattern of one-way sequential questions should be used in groups, not each question separately, in order to be fair to learners and reduce the phenomenon of cheating;
- Put the questions in the form of an image, not in the form of text, in order to reduce the possibility of searching for an answer to them using search engines on the Internet;
- Adopt the pattern of variable-answer arithmetic questions that take from value matrices, which means that similar questions appear with different answers for learners;
- Use the random feature both in arranging the questions and in arranging the answers;
- The pattern of questions should be varied so that the questions measure high-level skills such as: (analysis, synthesis, and deduction) and reduce the use of questions that measure low-level skills such as (recollection, true or false, etc.) questions;
  Different types of assessment should be used in addition to exams, such as: projects, case studies, and presentations;

- The penalty should be tightened, and the principle of academic integrity should be applied in the institution to those who are actually proven to have cheated.

Research recommendations:

- Abandoning materials that depend on memorization, and relying more on materials that encourage the student to think, participate, discuss, and use the mind in order to develop his critical sense.
- Academic circles should take these violations seriously and enact deterrent laws.
- Providing support and guidance during exams to ensure that you are ready for your assessments and able to support ethical practices such as:
1. Student Guide for Exams: Contains tips and guidance on conducting online and personal exams.
2. Academic Integrity Web Pages: These pages contain links to the special digital training package, which is the Ethical Researcher Toolkit, which provides guidance on references and avoiding plagiarism, cheating, and other negative and offensive behaviors to academic practice.
3. Issuing and approving the Academic Integrity Statement for remote assessments with a pledge.
- Implementing the decisions of the Disciplinary Council regarding violations related to proven or proven cheating due to insistence and ambush in the exam.
- Establishing a headquarters at the university for what is called the university police, which may require intervention in some cases of disobedience and rebellion in situations of cheating, especially cheating with digital supports.

Conclusion:

The spread of the culture of fraud and cheating and the innovation of modern, advanced and unprecedented means, during the examination period, especially those conducted remotely, reflects a new societal culture that has largely been imprinted with these unhealthy behaviors, in a way that threatens all academic circles.

The necessity of searching for a balance that combines digital benefits and learning necessities requires a radical rethinking of education policies in developing countries and the decisions of their guardians, and since we have become far from the goal, it has required us to build an educational system that embraces technology without sacrificing the human essence as well, and to ensure that it is a real tool for empowerment instead of being a threat to credibility and scientific and academic integrity related to the future of generations.

References
Notes:

1. Bahtan, Abdelkader. (2016). Psychological and social factors of the phenomenon of cheating in exams, (thesis for obtaining a master's degree), University of May 8, 1945, Guelma.
2. Boubidi, Lamia (2016). The role of modern means of communication (smartphone) in the spread of the phenomenon of cheating in exams among third-year secondary school students, (thesis for obtaining a master's degree in sociology of education), University of Martyr Hamma Lakhdar, El Oued.
3. Mimouni, Kahina. (2020). Causes of the phenomenon of cheating in exams among university students, (thesis submitted for obtaining a master's degree in sociology, crime and deviance), University of Mouloud Mammeri, Tizi Ouzou.

Articles:

1. Manasriya, Omar. (2023). Academic integrity in the Algerian university, Journal of Truth for Social and Human Sciences, Volume 22, Issue (03), 74-97.
2. Muhammad, Al-Otaibi. (2018). The nature of the psychopathic personality among cheaters in the final exam at Shaqra University, Journal of Human and Social Sciences, Volume 07, Issue 29 (2018), 227-262.

Websites:

1. Saudi website. (12/07/2023). Academic integrity, accessed on (05/03/2024).
2. Link: www.saudix.org/integrity/
3. Aljazeera.net. (05/07/2018). Electronic cheating.. The means are many and the goal is one, accessed on (05/03/2024).
4. Link: https://www.aljazeera.net/politics/2018/7/5/
5. Aljazeera.net. (06/09/2016). Algerian Baccalaureate leak.. Ideological conflict and settling of scores, accessed on (05/03/2024).
6. Link: https://www.aljazeera.net/news/2016/6/9
7. New Education Blog. (09/07/2023) Electronic assessment and ways to combat electronic cheating, Najwan Naji Ibrahim Al-Dabbah
8. Link: https://www.new-educ.com/
9. British newspaper INDEPENDENT Arabia. Political report "Combating electronic cheating in the Corona era", Friday, July 03, 2020, accessed on (11/11/2024) at 01:45 PM.

10. Link: https://www.independentarabia.com/node/131891/%

Articles in foreign language:

1. Rubén, Comas-Forgas. (2021). Exam cheating and academic integrity breaches during the COVID-19 pandemic: An analysis of internet search activity in Spain, heliyonjournal, Volume 7, Issue 10, e08233.
2. Mohammad, Salehi (2021). Cheating on exams: Investigating Reasons, Attitudes, and the Role of Demographic Variables, Sage journals, https://doi.org/10.1177/21582440211004156.