

Online examinations, reliability and quality issues

Abstract

As the online examinations issue opened the extremely relevant and urgent conversation of in what way ethics is cultivated by the higher education institutes as a fundamental value, the international literature confirms that educational institutions in many foreign countries present a significant plurality of online examination methods. This highlights the particular concern in the university community regarding the online way of examination related to ensuring their immutability and validity. The purpose of this literature review is to provide a critical description of the alternative remote examination methods adopted by institutions in the field of Humanities, based on articles in scientific journals, conferences and databases, as well as informative material from the websites of open universities. The challenge lies in finding a balance between invigilation technology, ensuring a positive student experience and a focus on the application, synthesis, critique or evaluation of information, with less emphasis on recollection. However, the extended use of applications that generate content, based on Artificial Intelligence, shift the focus from procedural matters towards more substantial reflections. These reflections lead to the conclusion that innovative practices of Open and Distance Learning systems can vision a valid assessment only by incorporating a considerable ethics framework.

Keywords: online assessment/examinations, reliability, quality, factors, ethics

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Introduction

Higher education institutions in Greece, following the current institutional framework and responding to the new conditions, organized and conducted distance examinations after the outbreak of the pandemic in 2020. Even in the Hellenic Open University (HOU), although some lectures and group meetings were already held electronically, the exams were always live.¹ So, this was an unpredictable situation that was first faced by educational institutions in Greece. By introducing this method of examination in many of its school departments, the HOU is judged to be appropriate, together with the distance-learning higher education institutions abroad, to reflect this experience and to contribute to the establishment of a permanent online examination method, in accordance with the legislation, which does not affect the credibility of the institutions. In addition to that, the online examinations issue opened the extremely relevant and urgent conversation of in what way ethics is cultivated by the higher education institutes as a fundamental value.

The experience of both distance and conventional institutions is included as the priority of the research was to find and document adopted practices, with a focus on humanities. The international literature therefore confirms that educational institutions in many foreign countries that have been conducting distance examinations for years follow similar practices. During the pandemic, many conventional institutions resorted to these practices. A plurality of online examination methods was observed, such as through oral examinations, through multiple-choice examinations, through platform or handwritten development topics, and finally through the preparation of exemption works. These methods have been used by both Greek and foreign universities with variations and analogies, with the exact organization being at the disposal of the teachers.²

Therefore, the study so far is summarized as follows: on the procedural side, universities that conduct examinations electronically in all their years of operation, during the examinations, allow the use of electronic software, books, notes or any auxiliary material. The

questions are developmental and a necessary condition is to use at least three references in each course, which will also be mentioned at the end of the paper. Finally, in order to participate in the exam, one must first have passed with more than 50% in all the activities set during the year.³

In all the institutions, the process varies slightly in terms of the time given for the examination and the format of the subjects. This pluralism highlights the particular concern in the university community regarding the online way of examination related to ensuring their immutability and validity. As is easily understood, the examination of each student from his/her personal area provoked objections regarding the possibility of assisting from third parties and the protection of students' personal data.⁴

Regarding the identification process, checking for plagiarism, and cheating, the universities adopted similar practices: At the remote universities examined, examinees remain connected to be monitored by open microphones and open cameras throughout the exam. Upon final submission, along with the essay, students must send their scanned academic ID. Afterwards, after the writing has been uploaded to the platform, the teacher will again identify them and then they can leave.⁵

Almost in all universities, students were connected to open cameras a few minutes earlier for identification, the exams were done with software that checks plagiarism and cheating, while in many cases the exam is conducted with external examiners and provided for an oral exam.⁶ At Yale University in the United States, exams were conducted through the zoom platform with closed notes and open cameras and microphones throughout the exam, and students would be recorded in the zoom cloud and had to send the video to the invigilator within 3-5 hours after the end of the exam.⁷

In Greek universities, during the period of the Covid pandemic when exams were administered online, examinees were required to undergo an identification process before the examination through an academic or police ID. In the case of the Finance department Sciences

of the University of Macedonia but also in the Pedagogical department of the University of the Aegean, the students should have connected to a virtual zoom room with the camera and microphone activated only during the identification. In the Medicine course of the National Kapodistrian University, the student's obligations are to be able to show through the camera the area from which he is taking part in the examination.⁸ All research findings agree that students have privacy concerns about the usage of online proctoring during online exams.⁹

Several studies focus on student and teacher preferences regarding online exams: A considerable obstacle are the students' perceptions. That is why, their stress decreased once they used the online exam software. Their prior experience was crucial for their preferences.¹⁰ In the students' responses, regarding how they prefer to deliver their answers there was a very small qualification of digital document delivery.¹¹ The type of questions that students said they preferred were multiple-choice questions. In relation to the problems they have faced in the remote exams, the most frequent difficulty was the interruption of the internet connection, while as a way of dealing with these technical difficulties they stated that they prefer extending the time of the end of the exam, instead of a repeat exam. For the complete replacement of the live exam by the online one, most students stated that they would not wish this to happen.

According to the teachers' point of view, regarding the type of questions, the majority stated that they prefer multiple choice questions. Technical difficulties seem to be the factor that most affects the smooth conduct of a remote exam, while in case of technical difficulty of the examinees, extending the time of the exam was considered the best option to deal with it. The countermeasure for possible collaboration between examinees was judged to be the questions requiring critical thinking, but teachers also showed a very strong preference for individual work as a supplemental distance assessment. The replacement of the live exam with the online one did not agree with the great majority of the professors.¹²

Summing up, in Greece in particular, the surveys record more advantages of remote examinations, however, they agree that neither the issue of reliability nor that of personal data have been sufficiently investigated. Research in the field of remote testing focuses either on the technical features, where they develop models for identity verification, plagiarism or detection of AI products, or on the views of teachers and students regarding the exam experience. The ease of use of each platform as well as the imposed cost of fraud detection and prevention technologies are more the subject of studies of an economic and technical nature.

The formulation, however, of the problems associated with deceptive practices that are further exacerbated by the incorporation of artificial intelligence, leads to the need for a critical approach to alternative ways of examining that combine both the variables of quality and reliability, while at the same time answering assignment questions. The purpose of this research is to provide a critical description of the alternative remote examination methods adopted by institutions in the field of Humanities. This will be possible by approaching issues of reliability and quality that arise for the institutions themselves but also to answer questions that arise in the wording and the way the topics are chosen.

Therefore, the following Research Questions are formulated:

1. How is the reliability of foreign institutions linked to the way of examination?
2. What are the effects of online exams on the quality of Distance Education?

3. What alternative formats can be used and for what reasons?
4. How is the exam format chosen and why?
5. What kind of ethical issues arise after the use of Artificial Intelligence in e-assessment?

Material and methods

The current study is a literature review about online exams and its aim is to identify, select, and synthesize primary research studies in order to provide a picture of the topic under investigation.¹³

Data collection and analysis: The current literature search has been performed based on main criteria for the articles considered in the current review are as follows: 22 articles were examined in this literature review, which met the eligibility criteria as peer-reviewed journal articles or full conference proceedings on online examinations in the university sector. The articles refer to Open and Distance Learning institutes, focused on Humanitarian Studies. The terms that were used as key words for the research are:

Alternative forms of online assessment/examinations, electronic assessment/examinations, e-assessment/e-exams, reliability, quality, factors, distance learning, higher education.

As sources were used articles in scientific journals, conferences and databases, for example ERIC and Google Scholar, and online libraries. Finally, informative material was retrieved from the websites of open universities Indira Gandhi National Open University, Bangladesh Open University, Athabasca, Hellenic Open University, Open University UK, UNED.

The date of writing and publication is another criterion taken into account. The articles were published after 2020, following the experience of COVID. This systematic literature review is focused on the methodology applied by universities, faculty and students' preferences regarding data related to cheating, reliability of the technology, and ease of use. In cases where several papers reported the same study, only the most recent ones were included. The bibliographic research will synthesize the quality specifications of universities that will be focused on and how this relates to the credibility of the education offered. Institutional issues will also be sought, for example, how the respective legislation defines the specifications of the exams in order for the titles awarded to be considered valid.

Results

Examining in terms of reliability and quality

A possible implication of the implementation of the online assessment are the questions arisen among the institutes about improving the reliability of online examinations. Three types of assessment qualities are judged as essential for efficient examinations. Reliability, validity and fairness.¹⁴ Especially the Open and Distance Learning System, credibility and reliability of assessment procedures are objects of introspecting discussion among institutes. Reliability measures to which extent the findings of an assessment tool can be identified as stable and consistent.¹⁵

In addition to reliability, fairness in assessment describes the degree of objectivity and liberates assessment of any kind of subjective judgment.¹⁶ While reliability is necessary, validity is crucial as well as it expresses the degree of accuracy with which a test is able to measure what it claims to measure. According to Baume's research that focuses on practical processes of Online Proctored Exams at European universities and educational institutions, the best

ways to improve validity during online exams projecting is to include the expectations of the students and ask them to consider the whole assessment procedure in order to detect any kind of difficulties and obstacles. The research also seems to locate the reliability solution at the electronic control systems. The forms that are strongly suggested are the identification process, both human supervision and electronic recording of the process as well as ensuring the access and archiving of examined papers.¹⁷

The solutions that ensure reliability in a university exam, guarantee that degrees are recognized and have the same value as the conventional institutes. In addition to that, the accreditations or the activities of alumni as well as the ranking of a program can prove that, as long as reliability is respected, the value of the degree is recognized. The establishment of the European Credit Transfer and Accumulation System (ECTS), as well as development of the Diploma Supplement as a follow up tool for the implementation of the Lisbon Recognition Convention,¹⁸ the academic and professional recognition of higher education qualifications are described with terms of transparency.

In order to ensure that universities' academic standards are maintained, all the institutions present a clear framework that describes how allegations of student misconduct are investigated and appropriate penalties are held. This kind of document proves that the university standards meet the national policy. For instance, in Greece, each department sets its distinct directions, but the Hellenic Authority for Higher Education is responsible for the procedures and the criteria of the evaluation and the certification of quality assurance of the curricula and the services of individual academic units and institutions. For this purpose, all the regulations regarding the examination policy are subjected to Law 4653/2020 that defines the framework, as a whole.¹⁹

Similarly, the Open University (UK) includes in its Code of Practice for Student Discipline a clear framework of students' expected behavior, in order to reassure that a fair and consistent policy is held and academic integrity is not threatened. Since transparency is related to reliability and validity, the UK provides a detailed catalog of misconducts that shall not be accepted, including the use of generative AI during examinations. This preventive act demonstrates how institutions need to precede their integrity and values as a response in the upcoming reality.

The findings also show that organizations are faced as well with questions about administrative barriers and quality standards.²⁰ What determines the quality in the services provided by an educational institution is what meets the perception of each person involved about what quality means, and it goes beyond their expectations. This means that the services can improve by putting those who use them at the center of every study. In fact, the quality of distance learning can be called into question when an educational institution does not succeed in restoring the unity of teaching activities to a satisfactory degree. As a result, the ultimate aim of a mechanism for continuous quality improvement in the educational process can be to create a culture of quality. The first step to achieve this is to create a common understanding through the consensus of those involved in the educational process.²¹ The choice of digital tool as well the familiarity of the students is both important factors for the successful completion of the examinations. More experienced candidates in this type of exam feel self-confidence and react more positively to their eventual involvement, while the less familiarization with the process causes significantly more stress.

So, in order to define "quality" Karadag and Özgür²² in their research about the assessment and evaluation in mega universities,

underline that there are some fundamental factors for the selection of tools and techniques when conducting final exams at open universities. Indicatively they mentioned the number of examinees and teachers, the time of the examinations, the technological infrastructures, the cost, pedagogical issues and the organizational structure.

An overview dedicated to finding connections between online exams and the quality of distance learners' exam at The Open University UK has put into debate the experience of students taking online and conventional exams. The aim was to compare survey data about conventional exams collected before the COVID-19 pandemic with post-pandemic period data, which led to the conclusion that no significant divergence is detected between the qualities of the distance learner's experience from that of conventional exams. As regards to question clarity, question relevance, satisfaction with exam score received, enjoyment, exam anxiety, and sense of achievement on completion, the most significant finding was that students were much more satisfied with the exam environment.²³

In terms of quality, the conclusion of most surveys on students' perceptions of online assessment indicate that students do not perceive online assessment as easy, control free and of lower quality. Furthermore, in the specific case of distance learning universities, the most relevant academic aspect resulting from students' response to the online method is the improvement of both academic performance and motivation as well as reduction of dropout. This assumes a major significance in distance education, where dropout has been a permanent challenge.²⁴

Alternative examination formats adopted by open and distance universities

Post-pandemic studies lean to associate online exams with stress and anxiety. Issues such as strict time limits or difficulty to comprehend the topic contribute to increased pressure. This moves the focusing towards a more organized and studied design of online exams especially in Open and Distance learning contexts.²⁵ The Universities that were included in the study were selected according to their characterization as a mega university. This involves the criteria presented by Daniel: "a distance education institution offering educational services for over 100.000 active learners enrolled in courses at different levels of higher education". According to relevant studies, Open Universities follow the integration approach of formative and summative evaluation.

Bangladesh Open University (BOU) conducts two types of evaluation at BOU such as continuous evaluation through practical assignments and projects. Similar to that, Indira Gandhi National Open University (IGNOU) in New Delhi has adopted a three-tier system of evaluation: self-assessment exercises, continuous evaluation through assignments, and term-end examinations.

The Open University (OU-UK) conducts both formative and summative evaluation with a greater weighing to summative assessment and lesser weighing to formative assessment. The most common components of students' assessment are projects, dissertation, seminars and group discussion and observation records.²⁶

In universities like the Open University of Great Britain, it seems that more than 2/3 of the modules' coordinators chose not to conduct final exams but proceed with options such as assessment based on assignments or e-portfolio. Recent research showed that in a total of seven (7) investigated open majors universities with more than 100,000 students in each of them only one, Spain's UNED utilized in wide climates online final exams, while in four of the seven universities in very few climates utilize such tests.²⁷

Information communication technology-based assessment tools can reassure less errors and major objectivity in scoring. So, their use on a large scale is strongly recommended in order to gain a student friendly and innovative practice of assessment in the Open and Distance Learning system. Among the alternative formats that were widely used are the series of quizzes. Various application software such as Canvas and Sakai made randomizing questions easier and provided less highly regarded opportunities for students to prove their deep comprehension of the material studied. They served as well as feedback for improvement.²⁸ Although this kind of exam has long been a common method of evaluating thanks to its ease to create, grade, and administer, it needs to accurately be revised in order not to encourage rote memorization of information rather than promoting deeper learning. Furthermore, series quizzes have a high degree of guessing and they often focus on lower-order thinking skills rather than higher-order ones.²⁹ Maybe the most promoted technique is to prevent misconduct by designing using complex questions that can

be treated with a more profound dominance of the material. This means that they have to lead to more than one correct answer, such as subjects requiring participants to resolve complex issues, comment on hypothetical scenarios, or defend a subjective position. These topics promote a higher form of learning and guarantee the absence of a rote memorization.³⁰

Taking the previous into account, the Faculty of Humanities of the Hellenic Open University and the Ionian University, organized the online exams in various alternative ways with modern and asynchronous methods. There were also the combined ways, which is to evaluate in writing and later to evaluate orally. Other typical cases of assessment tools and techniques that can be mentioned are written exams with open-ended questions written with closed or open books with electronic control, virtual reality simulations, video presentations, project presentations or portfolios, and oral exam in certain cases. Table 1 below presents the examinations formats that four Open Universities adopted.

Table 1 Formats adopted by open universities

UNIVERSITY	FORMAT 1	FORMAT 2	FORMAT 3
Bangladesh Open University (BOU)	continuous evaluation through practical assignments and projects	Online examinations	
Indira Gandhi National Open University (IGNOU)	self-assessment exercises,	continuous evaluation through assignments	Term-end examinations.
Open University (OU-UK)	formative evaluation through: projects, dissertation, seminars, group discussion and observation records	summative evaluation	
Hellenic Open University	virtual reality simulations, video presentations, project presentations or portfolios,	written exams with open-ended questions written with closed or open books with electronic control, oral exam	

This plurality is evidence of the concern that modern universities face trying to apply alternative measures of assessment.³¹ A traditional proctored assessment loses its reliability and evidence of learning outcome mastery begin to appear as ideal solutions. Open-book exams with a time limit are a considerable response to the dilemma: use of online proctoring technology or “authentic assessment”.³² By applying the “open- book” format, students need to use what they have learned in different circumstances. This cancels both the practical of memorizing and cheating on.³³

A similar format is the Annotated bibliography. Essentially, it consists in summarizing the basic thoughts expressed in a record, including the students’ evaluation of the author’s position. The strategy of Annotated bibliography practices their higher-order capacities to compare different viewpoints, to assess the accessible sources and to defend their perspectives.

Take-home exams can serve as the best evaluation strategy according to studies that present how students can browse the sentences of the assessment or keywords and find solutions. Therefore, in order to reassure the integrity, the assessment can be integrated by online oral presentation, and questions. The take-home-exam implicates the challenge of preparing more conceptual questions difficult to retrieve from any sort of sources, such as the web or study material.

In subjects where high-stakes exams are necessary, assessment that is more authentic must be applied. In video or project presentations, students are questioned about their body of work. Using audiovisual

material, provide reliable outcomes about the students’ preparation. Similarly, oral exams require students to answer questions verbally about the material while evaluating higher-order thinking skills, such as analysis and synthesis, and providing opportunities for students to demonstrate their communication and critical thinking skills. Although oral exams are proposed by 80% of the institutions studied, their frequency of use is quite low.

E-portfolio is also considered a valuable and reliable assessment tool. It contains representative work from the semester, enabling faculty not only to observe what students have gained, but also to indicate how students learn through their reflections. This requires a significant investment of time for students, so it has to be introduced firstly as a learning tool early in the course or program. Of course, it has to be visible how the objectives of the portfolio are aligned with the course learning outcomes. For major student involvement, the portfolio format can be negotiated. This way it could reflect both discipline-specific characteristics and professional contexts.³⁴

About Virtual Reality as an examination tool for Open universities, literature shows that it aims to improve students’ output by limiting distractions and reducing stressful behaviours. The process requires a virtual reality headset, a mobile phone and the VR Exam application installed on it. A series of multiple-choice questions appear and the answers are automatically graded. As a result, it is judged to be simple to get in touch with, easy in its use, and a large number of students appeared willing to apply it more often. However, this exam format

did not manage to decrease the stress levels. Maybe via seminars, workshops and frequent practice, this system can become friendlier to its users and manage to decrease stress levels.³⁵

Factors that determined the tools choice

What is widely observed throughout the literature review is that for the first time, designing examinations and studying possible alternatives occupies such thought. Never before in time, had institutes done so much effort to analyze their assessment tools. Given the advancements made in Artificial Intelligence in the recent period, according to current thinking, its use by the university students will disrupt online examinations. This means that it implies the potential of cheating and academic dishonesty. Although it appears difficult to express in an explicit way this scenario, it is admitted that this reality is present and a radical transformation of the way online assessments are designed and administered.³⁶

Therefore, in order to organize efficient and reliable examinations the key is to start with curriculum design and learning outcomes. The examination format follows the procedure of teaching during the semester. In this case, if the objective is to evaluate students' capacity in problem solving and applying their understanding in relevant circumstances, the idea of a portfolio would be more profitable, since it would validate their ability in illustrating and utilizing their knowledge.

The fact that in Open and Distance education candidates and examiners are in different physical environments requires the integration of assessment practices according to self-directed learning principles, exactly like the course contents. This means that, when it comes to decide which format or formats to choose in order to reassure both reliability and quality during online exams, the first factor to consider is the special feature of this form of education. It is true that Information and Communication Technology is a seriously considering factor when it comes to the choice of the best exam format. The use of proctoring systems, the access to electronic devices compatible with the exam delivery software by the test takers are both significant. Likewise, the format must be ideal for online screen visualizations in case of reading passages, images, charts, figures, and geometric shapes. Therefore, according to research on technology acceptance users with increasing experience can better gauge the benefits and usefulness of an e-assessment.

However, according to the research in the field, technology is not the first determining factor that affects the choice of assessment tools. A series of organization issues such as the number of the students and instructors, cost and pedagogical issues appear to be the most important. The examination duration is also considered important, because in many cases students complained about the level of difficulty compared to the examination time, which was judged limited.³⁷

The low cost is another factor, due to the limited resources of the Universities. Spending too much on e- examinations can hurt other quality goals, such as research towards better practices. In addition to that, the need to gain a quicker scoring affects the exams budget. In this case, exams, which are entirely composed of multiple-choice questions, present the obvious advantage of calculating scores automatically.³⁸

The nature of the testing object is an issue as well. There are only a few disciplines not suitable for being tested electronically, but in the case of exams that require test takers to perform certain tasks to show their mastery of specific skills, appropriate tasks must be developed to allow the rigorous measurement of these skills.

Some Universities, such as AIOU use assessment tools and techniques in addition to assignments according to the level of the studies. The options promoted at undergraduate level are open-ended questions, short answer and sentence completion questions and at graduate level final/exit exam, oral exam, online discussion via video conferencing; product development and internship in Business Administration Program; and portfolio in vocational courses. Moreover, in Master's degree and PhD programs different methods and formats are preferred, based more on research, such as pre-test / post-test, focus group interview, research article / dissertation, case study and project.

Finally, a frequently underestimated factor is the student diversity. The question arises as to whether the sociodemographic characteristics or dispositions of the students allow the various formats. Same way, students' learning styles are neglected. The diversity in learning styles (auditory, visual, kinesthetic and read/write) can turn an examination into reprehensible for some students. Therefore, the inclusion of different learning and expressing styles should be a factor as well. It is important to ensure that a diverse student body performs equally well compared to different exam formats. The relationships between students' sociodemographic and dispositional characteristics, technology-related expectancies, and e-exam acceptance can lead to a further understanding of the format choice. In addition, Education and Information Technologies research focusing on cheating practices in online exams suggests that the most effective strategy for handling cheating is to reduce its motivation. It is believed that respecting students' learning styles in teaching and assessment could lead to academic integrity.³⁹ However, this factor is not seen as crucial either in the case of presence exams.

However, this variety of new methods and tools as well as the change in the universities policies, must be interpreted as a generalized expression of concern about the lack of academic integrity, meaning substantially the prevalent use of artificial intelligence. The ability of new AI applications to produce correct and coherent responses widen the discussion about the possible implications in the online examinations procedures. This is exactly the crucial point of the reasoning that arises: when we talk about online assessment, we should not focus solely on the procedures and the formats, thus it is necessary to expand on philosophical, ethical and openness issues. As long as ethical frameworks are well established, the implementation of AI solutions can entail both challenges and benefits in higher education institutes.⁴⁰

Discussion

Through this research, new approaches were highlighted and reliability issues were promoted for the effective and qualitative conduct of online exams. These results contribute to the enriched understanding of the factors that influence the effectiveness and ensure the reliability of remote institutions. Of course, this entire topic is seen under the optic view of the expansion of Artificial Intelligence that appears to rewrite the whole online examinations chapter.

Distance learning universities are well known for implementing remote assignments. The diversity of the characteristics of students in these institutions pose challenges in adopting a fully remote assessment model. The research on online assessment in Distance learning universities shows that exactly as they design accessible and flexible learning opportunities for individuals with diverse educational backgrounds, ages, and career goals, they must focus on improving their online assessment methods as well. Online exams have been associated with stress and anxiety among students and

concerns have arisen as well about the validity of online exams for degree accreditation.

It is true that the e-proctoring tools cannot entirely replace the experience of monitoring by the teacher in the examination room. In addition, it has been observed that these proctoring systems carry with them a number of disadvantages. Firstly, in terms of accessibility, as they require the student to be in possession of adequate equipment, with minimum requirements and a good internet connection. Secondly, in terms of privacy, because it is not clear how the companies distributing such software treat the acquired data.⁴¹ We have also seen how all the problems described are reflected in the experience of using the system, and how they negatively affect the student's experience. These issues are very important and should be taken into account by the institutions, which have to choose a method of distance verification that guarantees the right to study for all, even for those who may present specific problems. It is natural to ask if there is then another method of online verification, which manages to preserve academic integrity, without incurring all these criticisms. A good alternative could be the 'open book' verification modes, which allow the student to answer questions with all the material at his disposal. In this case, it is important that the questions asked by the teacher do not require definitions, but oblige the student to reflect on the subject, to summarize the material and to explain critically the notions learned.

Conclusion

To sum up, the challenge lies in finding a balance between invigilation technology, ensuring a positive student experience and a focus on the application, synthesis, critique or evaluation of information, with less emphasis on recollection.

However, the extended use of applications that generate content, based on Artificial Intelligence, shift the focus from procedural matters towards more substantial reflections. While describing and exposing the facts in the field of the study, it becomes urgent to examine how institutes operate this open dialogue of artificial intelligence without expressing in an offensive way that the extended use is already present. The race that is ruled among institutes to meet up quality and reliability expectations demands that more ethical consideration and critical evaluation have to be done. In this direction, maybe the moral of Digital Humanism could orient us. A consideration of human autonomy and self-awareness against algorithms suggest an emphasis on the values that communities share. Although this worldview constitutes at the same time a cultural, political, artistic and spiritual movement, it can find a wider audience in the academic community as well. Humanism concepts such as respect, self-creation and rationality are seen with a new perspective as antidotes to blind and indiscriminate digitalization.⁴²

These reflections lead to the conclusion that innovative practices of Open and Distance Learning systems can vision a valid assessment only by incorporating a considerable ethics framework. Applying a method, which can ensure fulfilment of the course objectives and develop confidence in distance learners is not enough if not penetrated by notions of respect and moral. The responsibility lies to all the process stakeholders, whose role changes and becomes more demanding.⁴³ Course tutors, program coordinators, academic counsellors and supervisors are called to take into account all the research findings, in order to enable necessary improvements in the assessment system without neglecting the fact that values and ethics remain a priority for tertiary education.

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Conflicts of interest

The authors declare that there is no conflict of interest.

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