A CASE STUDY OF ETHICAL ISSUES AFFECTING THE IMPLEMENTATION OF E-LEARNING IN A CROSS-CONTINENTAL - EURO-AFRICAN UNIVERSITY

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Abstract: *This article explores ethical issues related to the field of e-learning in the context of a Euro-African University. Given the nature of the topic, this study aims to develop theory into practice pertaining to e-learning implementation in a particular higher education institution with multiple campuses in Portugal and Angola. Finally, we seek to introduce a criticism of the mainstream literature gaps on ethical sensitivity and emphasis on practical insights involving international collaboration. The empirical evidence emerged within Lusíada universities' context, since an e-university project was implemented. Despite the organisational strategic interest, its development outlines remarkably diverse intermediate results, which this study grasps through a comparative cross-continental environment. Consequently, ethical sensitivities need a closer look that should highlight differences across institutions and countries, and furthermore help to shed light on new issues that may be of special relevance, as for instance privacy and copyright.*

Keywords: Higher education; ethics; e-learning; cross-continental university

INTRODUCTION

E-learning promotes the existence of e-University as a strategic response to a novel educational context (MacKeogh, 2008). The generality of e-learning definitions entail a formal scope of educational design that the new learning environments

challenge in a continuum of thought, from "technology" at one end to "social" at the other. However, ICT development must cherish the ethical values as a precondition for social development, but the current literature seems to neglect an important discussion: to examine issues on the overlap of ethical quandaries related to e-learning implementation, namely across a comparative cross-continental environment.

This study is conducted in the context of Lusíada Universities, such as cross-continental - Euro-African "Lusíada University" trademark. The unique characteristics of "Lusíada Universities" represent an international co-operation agreement between higher education institutions in several countries to share the "Lusíada" trademark, as well as its pedagogic project. Lusíada campuses are located in Portugal (Lisbon, Oporto and Famalicão), Angola (Luanda, Benguela and Cabinda), Cape Verde (Praia), São Tomé and Príncipe (São Tomé) (Figure 1).

Figure 1. Lusíada University campuses

Source: Lusíada University Website (2011)

The concept of the Portuguese e-University government project involves the implementation of the most advanced computer technologies and electronic communications, namely e-learning platforms. Lusíada Universities joined the national funding initiative for electronic universities, called the e-U Virtual Campus project, which is characterised by:

- high investments in network infrastructures such as wireless;
- software for managing learning environment platforms (MLE);
- library (similar to OPAC);

- learning tools (similar to VLE);

The e-U Virtual Campus project (electronic university) was launched by the Portuguese Government covering the funding of the European e-Learning Action Plan through UMIC (Agency for the Knowledge Society), which promoted the development of services, contents, applications and mobile communication networks for students, teachers and researchers in higher education institutions. Unfortunately, no funding existed in or for the African context. The importance of e-learning is recognised by the Lusiada Universities as a way to promote organisational innovation in their institutions of both continents of Europe and Africa; in fact, the project started in 2001 in Portugal and in 2004 in Angola. The last milestone that this study explores comprises the idea of developing technological solutions and a curriculum that integrate ethical sensitivities.

1. BACKGROUND

The implementation of e-learning at the traditional universities has been discussed by several authors (e.g. Goodfellow, and Lea, 2007; Ali, Uppal, and Gulliver, 2018) confirming that it makes a crucial contribution to the higher education mission. To ensure the successful use of ICT in educational systems, UNESCO (2004a) acknowledges several policy frameworks about: strategic utilisation of ICT in schools; technological infrastructure; curriculum; pedagogy and content development; professional development; monitoring and supervision. These issues require further study due to the following:

- global versus local perspective of e-learning: global learning environments reproduce ethical and social impacts regarding knowledge creation, storage and distribution within higher education contexts (Silva, Alvarez & Rogerson, 2011);
- digital divide: ICT produces more inequality, and if technology is a prerequisite for achieving high quality education then policy makers and university leaders have to develop efficient strategies to overcome this problem (Oliver, 2007);
- complexity: this is the most important feature of our society according to philosophers (Heylighen, Cilliers & Gershenson, 2007); therefore, e-learning, culture and ethics as "human constructs" are complex.

Appropriate project management of e-learning systems should be used to implement successful cross-border delivery, and their potential contribution to social justice avoiding aims tainted by individual and group utopian projects (Gray, 2008). E-Learning systems allow an individual to access content from another country within the comfort of his or her own residence (Munawar, Munawar, and Cukier, 2011), but e-learning systems don't always solve all our problems - social justice is based on the concepts of human rights and equality.

From the ethical point of view, internationalisation should contribute to an institutional culture which values diversity. Critical dimensions need to be identified regarding collaborative culture typology (size, scope, nature of integration and intensity) for inter-organisational co-operation on funding, production of content and knowledge, changes in resource allocation dependencies, and ongoing expansion in opportunities for information exchange and communication.

1.1. Dimensions of e-learning

The e-learning literature is vast and multi-faceted due to its wide analytical spectrum. According to Wentling et al. (2000), "E-learning is the acquisition and use of knowledge distributed and facilitated primarily by electronic means. This form of learning currently depends on networks and computers but will likely evolve into systems consisting of a variety of channels (e.g., wireless, satellite), and technologies (e.g., cellular phones, PDA's) as they are developed and adopted" (p. 5). It is not possible to understand what consensual components involve e-learning, and if having any change in one of these, impacts the whole system implementation. In that sense, it is essential to understand the global perspectives of e-learning intervention, which needs a multi-stringed approach (Andersson & Grönlund, 2009) and the interplay of e-learning system implementation barriers (Ali, Uppal, and Gulliver, 2018).

Moreover, the e-learning implementation at university settings is a complex task, which starts with a strategy for developing the basic technical infrastructure. According to Blinco, Mason, McLean, and Wilson (2004, p. 2), this "infrastructure often describes a bottom layer of an architectural description or diagram, indicating network hardware components, communications processes, services and protocols". Throughout this assumption it is vital to shed some light over what are the issues in a "bottom layer". First of all, it needs a comprehensive ethical and technical analysis to determine how technology should be applied. In addition, several dilemmas can emerge to apply a global open source solution (like Moodle), or to analyse concurrent vendor proposals (global services and protocols, or local suppliers). In other words, Star and Rudledger (1996) point out that "an infrastructure occurs when the tension between local and global is resolved… used in a natural, ready-to-hand fashion" (p.114).

Finally, in the e-learning higher education paradigm, learning "with" interactive technologies establishes a certain intellectual affiliation between students and technologies. Instead of using technologies to guide students through prearranged interactions, students may use technologies that function as "the mindful engagement of students". Implementing a balanced approach is needed to avoid strategies that ignore technology tools, or, on the other hand, fixating too much attention on technology for e-learning. A possible solution was found in Rakoczi, Herbst and Reichl (2010) since these authors see videoconferencing as the CMC tool that is closest to face-to-face communication, enabling high levels of

interaction and facilitating personal feelings (e.g. social presence and perceived privacy).

1.2. Ethics

According to the Ancient Greeks, ethics is a branch of philosophy that deals with what is considered right or wrong, and even at a simplest level it is related to the behaviours that should be adopted in every communal human activity within the moral domain. In the academic environment, the codes of ethics are influenced by diverse personal as well as situational variables (Remišová, and Lašáková, 2012).

Ethical considerations in e-learning are derived from both communication ethics and instructional ethics (Toprak et al., 2010), or according to Gearhart (2015) have internal ethical issues and ethical concerns coming from outside the program. Moreover, the internationalization of campus and community is simultaneously a chance and a challenge that higher education institutions ought to deal today. Even so, it is crucial to develop international normative rules for ethical education knowledge distribution, which is in line with Olsen's (2009) political glocalism: putting humanity's collective requirements ahead of vested interests' short term desires, humanity's collective priorities ahead of politicians' short term ambitions, and humanity's local needs and priorities equally balanced with global ones.

Different cultures have different perceptions of what constitute an ethical consideration, and it is not easy to acknowledge dilemmas, which arise between two such different positions as "Routine Ethics", that make computer ethics trivial, and "Cultural Relativism" that can make ethics impossible on a global scale (Moor, 2004). So the use of ethics requires knowledge of ethical theories and persuasive discussion skills regarding cultural issues. As an example, how can we deal with the concepts of privacy and security if the use of ethics as a means of ensuring security has limitations? Jonas (1985, as cited in Stamatellos, 2007: 1) argues that because technology changes the human condition and affects life at local and global levels, it engages humanity in a new perspective of ethics.

Portugal and Angola share the same official natural language (Portuguese) and several aspects of culture as a result of over 500 years of colonisation, but it is not enough to avoid the necessary comparisons. Also, social development usually initiates ethical changes in cultures; for instance, it may reduce a culture's tolerance for corruption and bribery. This too can be critical in managing the research focusing on links between Portugal and Angola, since the need to adapt to the lack of a cultural consensus and the increased ethical differences, which is consistent with what Heaton (1998: 263) calls "a dynamic mix of national/geographic, organisational, and professional or disciplinary elements in constant interaction with one another".

In addition, ethical questions arise when different interests of individuals conflict, and thus there is need for a higher level of principles that are fair to the rights of all

concerned, and this is why ethics in a learning environment denotes sensitivity to multicultural understanding, tolerance and civility. For example, lecturers and students view behaviour differently with regard to ethics. In fact, what is considered the right behaviour is generally an individual decision that can be shaped by one's view of ethics, and an ethical point of view is susceptible to different meanings and several interpretations (Oakley and Singh, 2016). Or, according to Macfarlane (2004) the lecturers that effectively use Moodle "perhaps demand possession of a final virtue, that of a generosity of spirit or an individual disposition to spend time helping individual students, preparing learning and teaching materials, giving feedback, writing references and many other time-consuming but materially unrewarded aspects of university teaching" (p.159). This virtuousness creates social value beyond mere self-interested benefit, which produces benefit to others regardless of reciprocity or reward.

Following other perspectives, some relationships were established: privacy versus surveillance, personal data versus identity, integrity and honesty, and economic interests versus a threat to the moral integrity (Stahl, 2004). Or, Khan (2005: 293) classifies ethical dimensions in e-learning as:

- Social and political influence: institutional barriers to implementation;
- Cultural diversity: ambiguity and cultural miscommunication;
- Bias: fact-based or non-controversial content;
- Geographical diversity: time zones and synchronous versus asynchronous use;
- Learner diversity: different learning styles;
- Digital divide: access to the Internet, information accessibility, literacy, etc.;
- Etiquette: standards of considerate behaviour, harassment and defamation;
- Legal issues: copyright law, privacy regulations, plagiarism punishment, etc.

n specific aspects, this scenario is enhanced further due to the tightening of copyright and other ownership restrictions through international treaties and regulations, or multiple data sources of personal data (Moodle utilisation) in which individuals are identified and a direct quote would endanger their privacy of communication (Vidaković, Arsenijević, and Bulatović. 2011).

2. RESEARCH APPROACH

It is interesting that literature devoted to e-learning pays little regard to empirical studies about ethical dilemmas throughout the implementation of e-learning in dissimilar geographical locations, particularly to a comparison between two

countries from different continents like Portugal and Angola. Against this backdrop, Lusíada Universities act as case studies (example of higher education internationalisation) for the e-learning project which is a shared technological solution; also the researchers' role may promote change in the strategy of the project. The distinctive organisational settings of the Lusíada Universities, provide an environment to investigate the ethical and cultural impact in an e-learning project. The basis for this claim acknowledges three main issues:

- Name - "Lusíada University" represents an international co-operation agreement between higher education institutions in several countries to share the "Lusíada" trademark, as well as the pedagogic project;
- Context - these organisations have campuses in Portugal (Lisbon and Oporto) and Angola (Luanda and Benguela), allowing a realistic cross-cultural comparison;
- E-learning project - its importance is recognised by the Portuguese and Angolan higher education institutions as a way to promote organisational innovation and share of the course curricula;

Understanding the trade-off between planning and current ethical practices it is vital to promote an effective e-learning project in Lusíada Universities, despite its multiple geographical locations. Considering the longer academic experience of the Lusiada Universities in Portugal and their lecturers, the Lusiada Universities in Angola asked for a strong collaboration in terms of course contents and also face to face teaching what caused a constant travelling of the Portuguese professors. In this scenario, Fenwick (2003) describes collaborative experience as "…joining others in a shared community of experience whose meaning is constructed together amid conversation and joint action." (p. 13). However, Dillenbourg et al. (1995) make a distinction between collaboration and co-operation, defining collaboration as "...mutual engagement of participants in a coordinated effort to solve the problem together", and co-operation as work "...accomplished by the division of labour among participants, as an activity where each person is responsible for a portion of the problem solving". For example, the use of chat and forum on the e-learning platform Moodle can contribute to the enhancement of "dialogue as curriculum" (Sorensen & Ó Murchú, 2006), nevertheless the lack of its use by students reduces the importance of e-learning to the participation and production of digital resources. On this, the researchers as lecturers faced a plethora of constraints when designing and implementing courses. For example pursuing the institutional obligations, the curriculum, or the set of available e-learning tools, while social presence should be created to enhance both student satisfaction, perceptions of learning, and retention, and expand learning experience with ongoing communication, process, and collegiality (McCracken, 2002), constantly producing new ways of supporting collaboration, interaction, personalisation and delivery (Sigala, 2007).

In spite of a similarity among data sources and analytical dimensions, it is important to highlight each dimension. Silverman (2017) states that observation is fundamental to comprehend a different culture and after understanding participants' categories, open-ended queries to a small and representative group is adequate (sample). The audio and video recordings, as well as the transcription process, are critical procedures to acknowledge participants' speech, and understand their language. Walsham (1995) states that in an interpretive case study, it is important to detail the research sites and the reasons for choosing them, the number of people who were interviewed, what hierarchical or professional position they are in, other data sources, and over what period the research was conducted. The choice concerning Lusíada universities is well documented in the research context, and the researchers have interviewed students, lecturers and staff (managers and IT staff) beyond his daily observations (jottings and diary) and remaining documents (organisational, governmental and institutional).

3. EMPIRICAL RESULTS

It was observed that the e-learning project has, since 2001, been referred to in several formal internal Lusíada University's documents (Project SLICE), and also external ones, for instance the self-evaluation report (EUA, 2009). The main objectives of the project are to improve teaching quality and broaden the access to education, and promote the availability of institutional documents electronically, as an appealing strategy for student attendance. The e-learning platform Moodle is still used to carry the content of the traditional classes, retaining value-added related to access, privacy and security compared with the use of shared folders (map of network drivers). Another concern related to accessibility and interoperability rules was evidenced in formal documents connected with the e-U project certification of W3C and SCORM rules.

Moreover, there is an evidence of the responsibility of the curriculum to fit ethics in earlier than the last year of the course. At the Lusíada Universities of Lisbon and Oporto there is a course unit "Ethics" which has been common to all undergraduation courses since the Bologna process was implemented. The lecturer gives the same programme and lessons to all undergraduation courses together whether students are from it, management, economics or any other science. This is a critical aspect for the computer science courses, because the emphasis of the curriculum should be based on computer ethics issues. It was also noticed that when the researchers as lecturers address the students on several ethical principles, even if informally, they show no knowledge of the issues, justified by the fact that they will only study this subject on the 3rd year of their courses. Thus, in some form, they justify their attitudes towards plagiarism, cheating, copyright, privacy, and so on by way of their own unfamiliarity with these ethical issues. Based on these empirical findings, the researchers have assumed that the success of the e-learning project of the Lusiada Universities should take in consideration as a

priority the cultural disparities between both countries and strengthen the ethical principles that all the stakeholders should observe as the next section details.

3.1. Privacy

In Portugal, Lusiada University adhered to the Microsoft Live@edu project in 2009, transferring e-mail accounts management to Microsoft. One ethical dilemma was the safeguard of privacy of the students' data (although the Lusíada database was legally registered by the Portuguese Data Protection Authority (CNPD)), versus the added value services (more availability, more space, more storage, etc.) and the security guaranteed by Microsoft, given that this project is based on cloud computing technologies. Furthermore, a privacy problem emerged on self-service printing system because the detailed report that the equipment produces, sometimes appears available for everyone, including personal data. In terms of the users, their concerns with security and Privacy diverge.

In the classroom few concerns about privacy were evidenced by the students, with many logins staying open after lecturers and students had left the room. There is, however, a law that incriminates illegal acts in the accessing of personal data (username and password are personal, not transferable, for the knowledge and exclusive use of the user). The appropriate relationship between rights and duties is clearly critical. Any understanding of this relationship will be informed by social and cultural circumstances. In addition, digital library services provided online some videorecorded lessons. This raises ethical dilemmas of informed consent and lack of privacy.

Another note points out the fact, as stated above, that students – as well as teachers – do not log out before leaving a classroom, enabling others to see their personal content. Lusíada University reserves the right to change its Privacy policy at any time, without notice, to adapt it to new legal requirements (National Personal Data Protection Act, Law No. 67/98), but no reference to the Privacy policy appears on any of the Lusíada Universities' website.

In Angola the IT strategy was planned to change from free use of computers to the implementation of a minimal security with private personal logins created for students on the local server. In a focus group, it has been confirmed that there are no personal or private passwords. Security issues identified were clearly related to password policy.

Another concern for privacy was observed in a document titled "Rules for using ICT rooms" (in Lisbon, but nonexistent in Angola) delivered to students upon enrolment.

3.2 Copyright and intellectual property

Some dilemmas were shown in order to consider intellectual property from the "e-Learning point of view". The first one revealed that taking illegal photocopies makes no difference, while the other values the digital protection. The comparison

between the use of a digital copy (scanning to e-learning) and photocopying was also commented.

In Lisbon, there is a self-service integrated system that allows printing, photocopying and scanning of content, exactly the same as one in Oporto, but nonexistent in Angola. However, the availability of scanning (digitisation) threw up some ethical dilemmas related to copyright. Digital rights management is a complex topic and requires careful management. It involves aspects of copyright law, contracts, payments, and windows of use and reuse.

This is a problem related specifically to e-learning because in Moodle content becomes associated with the trademark of Lusíada University. Some teachers do not agree to the treatment of the issue of copyright here in the same way as with photocopying, stating that what they give to students or what students succeed in getting from the web is as a result of no institutional interference, unlike Content placed on Moodle which becomes associated with the logo of the University. The comparison between using digital methods (scanning) and photocopy was also observed by teachers (seminars on e-learning).

On the other hand, the availability of personal pages of students and lecturers out of the Internet raises the issue of who is responsible for their contents... copyright violations reported by FCCN (Portuguese Foundation for Science and Technology) (filtering of online educational content) are an example of what can happen if we open over the network... with the logs could not identify who it was! It was observed that in legal terms, the Internet service provider filters the contents and issues warnings to the University regarding copyright infringement.

Concerning the digital library services and also the internet page, it was found that this service offered on the internet pages of all subjects programs, and content provided by lecturers, and also some videotaped lessons. So, these facts raise ethical dilemmas that can be addressed with regard to distribution of the content of videos, in the face of copyright.

A student in Portugal reported that copyright infringement is easily avoidable in face of the huge amount of articles available on the Internet with free access, thus preventing the purchase or the photocopies of books. As for the copyright, it will constitute an example of good practice to be followed by the universities, setting specific negotiation and written authorizations to be obtained from the lecturers, researchers or employees in any capacity of the institution to the inclusion of their works in e-learning platforms.

Nevertheless, crimes of counterfeiting, plagiarism or unfair competition are provided respectively in the Code of Copyright and Related Rights (approved by Decree 63/85 in 14:03) and Article 260 of the Code of Industrial Property. However, lecturers need to be ethiculturally sensitive with the nationality of students, if they are to assess in an ethical manner when responding to issues of plagiarism from an international point of view.

In Angola a student focus group and one manager confirmed the problem they encounter with the high cost of books, which locally may justify the violation of copyrights.

Despite the fact that Angolan law protects authors' rights (Law n.4/90 - Author's Rights and Relate, 1990) in terms of the infringements of copyright that occur daily, so far the results are not visible because plagiarism, copying, playback image and sound are made with total impunity (AngolaPress news, Culture, July 28th 2009).

An informal note shows Angola's requests to "Lusiada Universities" in Portugal, photocopies of course units content (books, lecture notes, PowerPoint presentations, exams, etc.) without any concern about the author's rights. It should be recalled that the co-operation protocol between Lusíada Universities does not justify this request and the use of illegal photocopies.

Several other problems were found relating to licensing software even for administrative or academic use. For instance, the Microsoft campus agreements signed in Portugal are not valid for the Lusíada University of Angola, because the localisation comes under other geographic reseller (usually in South Africa). Furthermore, several participants commented that in the Angolan society software piracy is widespread. Perhaps African Ubuntu ethics influence this scenario (Capurro, 2013), but from the point of view of Western ethics it might be said that in terms of deontological theory the act of copying software is always wrong, whilst in utilitarian theory it is justified if it has a beneficial effect on a society as a whole.

4. DISCUSSION

The free e-learning platform Moodle was chosen for all Lusíada Universities in Portugal and Angola, but the implementation plan remains to be completed namely in Angola not on account of the opportunity costs but as a result of different organisational cultures (evidence based on the type of the leadership environment). Despite the organisational strategic interest in e-learning to support the cross-continental environment, its constant reevaluation introduced never-ending ethical dilemmas. The credibility of ethics for global point of view of the institution should be committed to Lusíada Universities. As regards the political dimension it is possible to acknowledge significant social dilemmas such as unequal regulatory procedures and funding (e-Europe Action Plan) in both countries. Nevertheless, the previous organisational environment as well as the existing co-operation protocol between these universities is a strategy to diminish the existing gap in knowledge between the Lusíada Universities in Portugal and Angola.

The use of the e-learning platform Moodle for placing online content of the traditional classes showed only added value related to access, privacy, and security. The lecturers can make content available only for students who must take the

respective access rights for course units, while the use of the shared folder allows content to be accessible to be read by all lecturers and students. The use of the e-learning platform Moodle has an added value related to issues of access, privacy and security in comparison with the use of the shared folder where some content remained. On the other hand, the protection of copyright and plagiarism has been referenced as important for e-learning implementation.

Regarding copyright and neighbouring rights observed comparatively in Portugal and Angola (UNESCO, 2008), it was verified that there was a historical similarity until the nineties, when the Portuguese laws were altered and adapted to European directives. The analysis made by the World Economic Forum's (2011) Global Competitiveness Report confirmed other factors of relevance between Portugal and Angola, for instance the infrastructures (electrical energy in Angola is a serious constraint), and property rights (Portugal ranks 41 but Angola does not even make part of the list!).

In addition, the use of internet in Angola remains very problematic, as it is slow and very expensive; it is necessary to be very patient to get information mainly from the heavy sites with a lot of images. On the other hand, a growing use of notebooks was remarked upon, often without great concern with subjects of safety or privacy (sometimes the password can be obtained in an informal way). A formal policy for ICT security was not found. In Portugal there are customised logins, although some people forget to log out when finished using the computer in the classroom, enabling others to see their personal content. Privacy is not considered very valuable, i.e., in Portugal, absolute control interferes with privacy and autonomy demands (logins) and is sometimes neglected; in Angola there is a unique login to start every computer.

Finally, a critical issue emerges because Lusíada Universities computing professionals are not trained to have explicit practice of ethical guidelines, but accept their social responsibilities.

CONCLUSION

While the fact that Lusíada Universities being established as Euro-African cross-continental environment both in Portugal and in Angola gives a considerable value for launching an e-education cross-cultural experience, it can be assumed by this case study that a critical strategy should be considered and implemented with the claim that e-learning will become globally accepted.

However, as stated in this document several ethical dilemmas emerged in the implementation process. The issues of privacy and copyright assumed a special relevance in the whole process. The research showed that the students, both in Portugal or Angola, had a general ignorance about privacy, and they had not received any formal training related to information ethics within their course units. For example, as referred before, in Portugal, although there are strict rules for the

secure individual access to computers, people (students and sometimes also teachers) often forget to log out when finished using the computer in the classroom, enabling others to see their personal content, showing a complete unawareness of the basic security access to computers whereas on the other hand, in Angola, there are no personalised logins. Everyone has access to the computer systems with the same access code. A policy of formal security was not found.

In what concerns plagiarism, cheating and copyright violations are commonly acknowledged both in Portugal and in Angola. While some lecturers revealed the difficulty in the detection of these problems due to the lack of an anti-plagiarism tool, the students' different views are related to internet access, namely the high bandwidth in Portugal that enables numerous downloads (trouble with digital copies).

Finally and based on the empirical findings of this case study, the researchers have assumed that the success of the e-learning project of the Lusiada Universities should consider as a priority the cultural disparities between both countries and strengthen the ethical principles that all the stakeholders should observe. This could only be possible with a strong training action near students and teachers on the dangers and threats of not fulfilling the basic principles of security which lead to unethical problems in the access and use of any e-learning system.

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