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Deception, Ethics, and Information Technology: Policy Implications

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Abstract

The newness of computer technology has generated unprecedented dimensions to ethical topics such as "cyber ethics," "internet ethics," and "computer ethics," to name but a few. This study investigates ethical concerns that involve using information technology and resources in higher education. More specifically, the paper looks at the ways in which ethical consideration affects e-learning. We propose that breaching ethics in information technology involves a set of skills, the parameters of which depend on the end users' morals. Thus, ensuring ethics in IT necessitates identifying vulnerable end users, and formulating a set of guidelines to ensure ethical codes along technological advancements. All stakeholders, administrators, academics, and students are included in this ethical culture in e-learning. The role of the academic in the negotiated e-learning culture is to create an environment that promotes integrity. Academics must share in the responsibilities of enforcing integrity and ethical constructs of the shared community. Hence, we offer the following suggestions for addressing these issues: creating and periodically evaluating security policies and course content; identifying and monitoring negotiated-cultural ethical criteria within the constraints of IT usage; re-defining the roles of stakeholders in relation to e-learning systems to further enhance and expand the culture.

Keywords: e-learning, ethics, information technology, techno-culture

1. INTRODUCTION

Information technology is an umbrella term that covers a wide spectrum of phenomena relating to the roles that technology plays in the production, management, and dissemination of knowledge, and the effects that it has created on the work environment. The academic environment has not been immune to such effects. These effects are visible in admissions, the library system, the registrar's office, and distance education as well as other departments and offices. While the idea behind technological progress is noble, it has always backfired in terms of abuse or misuse of the technology. This bears the question, "What is the 'right' thing to do?" Hence, the attempt in this paper is to explore the empirical relevance of ethical challenges and considerations that information technology (IT) poses in higher education, specifically in the areas of e-learning.

The variation in academic practices and disciplines in higher education may lead to differing perceptions regarding IT, academic culture, and e-learning. Perceptions are not immune to the variations in the components of individual characteristics and the challenges facing the environment of higher education.

Motivational factors implicit in the assumption of technology acceptance and implementation in transforming the methods of collecting, storing, and delivering information also play a key role in this process. Although, on the surface, there may appear much constraint in the academic environment because of our reliance on "academic freedom", the structure of the diversity across different academic disciplines and the human factors are among prominent variables that affect the extent or importance of ethical consideration in using electronic resources in classroom teaching. IT offers a wide range of unprecedented opportunities and flexibility for the end users (i.e., faculty, students, and others). However, it is not clear from the existing literature whether the diversity in the academic environment is complementary or contradictory (Leidner & Kayworth, 2006).

This controversy seems highly relevant to e-learning—a buzz word in universities and colleges that denotes any teaching/learning attempts that incorporate electronic technologies and resources in teaching (Ahmed, 2010). E-learning is inadvertently geared toward the spread of technological revolution into education. The growth in utilizing electronic resources in education suggests revolutionizing educational methods in terms of changing delivery, approaches, and our priorities. This type of info-techno-cultural revolution is commonplace in higher education; the current tendencies toward online offerings of the courses, fully implementing online library systems, or the development of instructional technologies on campuses are but a few examples of the educational transformation on behalf of IT.

Incorporating IT in education has compelled the academic professionals to re-evaluate their qualification bars in today's academic environment. The administrators or the students are not immune to these expectations either. The diffusion of "information technological culture" positioned teaching with a new reality that has made it vulnerable to misuse or abuse of technology in various fashion—such as plagiarism, cheating, evading personal responsibilities, to name but a few. These types of precautions are mainly reflecting the emerging networking patterns, availability and accessibility of information to the end users, and the new work environment, all of which may require a re-evaluation of our codes of conduct. As IT advances, it creates a grey area in our cognitive and normative approach to the state of the affairs. Thus, the lack of clarity in our roles, expectations, and perceptions is due to the newness of the computer technologies. This has created a dilemma in deciding what is right and desirable, or what is an acceptable or fair action (Rosenbrock, 1995: 18).

Given the above, it is important to explore and clarify what is right or desirable cognitive and practical behavior when tackling the challenges of information technology. Thus, re-evaluating attributes of e-learning ethics becomes highly relevant even though, at times, pragmatism may contradict the desirable or ideal codes of conduct. Hence, we open our argument with the assumption that IT plays a decisive role in disseminating information in an unprecedented fashion in academia. We further postulate that IT has created its own specificities filled with symbols, images, and virtual realities, among other aspects; collectively, they constitute "information culture" which relates to perceptions and practices in information production, storage, and dissemination. An embedded idea here is to explore the extent to which ethical considerations affect the use, abuse, and/or misuse of information technology.

2. REVIEW OF THE LITERATURE

Both "ethics" and "e-learning" have been explored extensively in the literature. Both professional and academic disciplines such as business (e.g., business ethics), biology (e.g., bioethics), medicine (e.g., medical ethics), to name but a few, have emphasized the issue vehemently. Although indications of ethical discords within education are an old but continuous process, e-learning is an uncharted territory since it is a more recent phenomenon.

Plato defined ethics in terms of justice, reality, and privilege, among other attributes (in Wood & Rentschler, 2003, p. 344). Ethics in this sense is a rational behavior dictated by the structure of the value system in a culture. However, the term in the writings of the subsequent moral philosophers emerged to mean the standards of what is held in high esteem in accordance with the dictates of our conscience (Sensson & Wood, 2003: 178). For example, the Kantian notion of ethics reflects "goodwill" that is independent of any other things. However, more recent philosophers' views differ in the sense that moral behavior is an action independent of its consequences (i.e., deontological perspective), whereas adherents of the teleological perspectives, on the other hand, relate one's

action to its righteous consequences as moral or ethical (Kanuka & Anderson, 2007).

Given this dichotomy in approaches to ethics and moral behavior, ethics in e-learning can be delineated as a collective conscience that compels the end users to select between what is acceptable and what is not acceptable. In this regard, ethics is founded on the notion of free will by the end user, who is aware of the consequences of his or her choice by virtue of an internalized commitment to the cluster of values that governs his or her action. E-learning, on the other hand, is a teaching/learning process that takes advantage of electronic technology for "delivering contents, assessing students' competencies as well as for enhancing interaction among users" (Posiah, Abu Samah, & Jusoff, 2008, p 452).

The unification of "ethics" and "e-learning" is rather unique, and warrants full consideration whenever possible. Both "ethics" and "e-learning" are social constructs that reflect a group's values and morals. As a result, various fields—e.g., business, computer sciences, law, medicine, psychology, sociology, etc.—have developed their professional codes of ethics that entail the principles for their conducts. E-learning is not immune to this type of restriction, but it is perceived to be "an arena in which ethics is seen less" (Khanifar et al., 2012, p. 548). This lack of full attention to ethics in e-learning is attributable to 1) the newness of the technology, 2) the mindset that "anything goes in the cyberspace"; and 3) the fact that the advent of IT has significantly influenced the prevailing academic social constructs, its value system, and its culture. Therefore, ethics in the academic or any other environments serve the purpose of maintaining equilibrium in that environment. Academic equilibrium in this context is achievable if members respect the prevailing societal or group norms, values, and beliefs.

This raises serious questions about the ways in which equilibrium is maintained in e-learning. Khanifar, Jandaghi, & Bordbar (2012) list a series of ethical issues that have strong ramification for information technology—e.g., users' rationality, self-control, transparency, honesty, and privacy. These factors are among the core values that penetrated information technology in the form of a new set of ethics—e.g., "cyber ethics", "internet ethics", "computer ethics", to name but a few. Their common denominators seem to be efficacy, proficiency, responsibility, and accountability. If these values and practices are not reinforced during one's educational training or one's intellectual development as a student, the false play is more likely to flow over into their professional environment (Underwood & Szabo, 2003).

An interesting twist in e-learning ethics is that it extends beyond merely sharing information. He, Saito, Maeda, & Kubo (2011, 47) have stated that an e-learning environment encompasses "anytime, anywhere and anybody" learning, which implies that e-learning ethics reflect diversity in contemporary college campuses—an issue that reflects cultural differences and differences in perspectives on ethics.

The diversity among the end users may inadvertently suggest the inevitability of many sets of ethical codes of conduct, which make the whole idea of "ethics" in e-learning more complex than it may appear. Walsham (2002) has attempted to explore the effectiveness of IT and software development by teams whose members were nationally and ethnically diverse. An initial issue in this new work environment was cultural differences and, therefore, the differences in perceptions on ethics. He observed the team members reaching a "negotiated culture or convergence of view". From here, we can extrapolate the necessity of the development of a new (or reformed) set of values and beliefs, particular to the structure of the team that performs as the guiding principles for members' conduct—replacing the old. This may be particularly relevant to higher education due to team teaching and learning teams.

However, because the techno-cultural values that guide ethical conducts are case (team) specific, the specifics of this "negotiated culture" in higher education have not been fully explored because of its complexity and vastness. As a result, "What is an academic negotiated culture?" has remained unanswered in the literature. Furthermore, if Walsham's (2008) notion of a "negotiated culture" is commonplace, then there must be an infinite number of techno-cultural academic ethical codes around the globe, each of which entails its own specific framework shaped by the indigenous norms, values, and beliefs, which makes the study of e-learning ethics in these techno-cultural settings far more complex than can be imagined. Thus, the question remains, "Is a universal e-learning ethics conceivable?" And, "What do these sets of negotiated academic techno-cultural settings have in common when e-learning is concerned?"

3. THE THEORETICAL FRAMEWORK

Distance teaching-learning is as old a concept as education itself. During the past millennium, centuries, and decades, the format of delivery has changed from traveling teacher, to correspondence, to the cloud-computing forum of the online college model, but the concept is timeless. One of the hallmarks of this model is inclusion. It seeks to open the playing field to students and academics of all ages, ethnic groups, cultures, abilities, and geographic locations. It provides an open ubiquitous medium in which education and learning meld into a pool from which students and teachers share and share alike. It is in this forum of global delivery that a new ethical "negotiated culture" must form.

Delineating pragmatic ethical guidelines is not an easy task because it involves a multitude of social practices and legal issues that reflect different philosophical and religious frameworks; neither is establishing a research model to study ethics in e-learning is devoid of this obstacle. The utilization of new devices (e.g., mobile phones, IPad, or open Network Learning) that allow the end users flexibility in teaching and learning has exacerbated the complexity of this issue. It also "disrupted the traditional ethos, conventions and ethics issues of institution-bounded online learning contexts" (Toprak, 2010 cited in Esposito, 2012) by demanding the need for a new "electronic age" wisdom. Gardner (2007) suggests that the ethical culture of this new e-learning wisdom can be broken down into five linking concepts: the disciplinary mind, the synthesizing mind, the creating mind, the respectful mind, and the ethical mind. Each of these "'minds" is critical to the whole and must be included in a comprehensive model for academic ethics in e-learning. But, the ethical mind in the e-learning teaching environment can produce an "ethical destabilization" (Whiteman, 2010) for educators and their expectations. This is more stressful if influenced by an in-house ethics review board that provides guidelines for ethical conducts.

The social and legal complexities in studying "ethics" in higher education are compounded also by a set of bureaucratic structure that reflects three environments: the faculty work ethic, students' academic honesty, and the promises for support by the administration. Although there is a symbiotic relationship among these players, the literature on ethics in e-learning is inundated with articles on student ethical and unethical behaviors; unfortunately, the literature is silent on the question of ethics among administrators and academics.

4. METHODOLOGY

Two important aspects of ethics in e-learning that relate to the faculty and administrators are responsibility and accountability. E-learning educators must be able to demonstrate the legitimacy of what they are doing in their online courses, and need to justify that their methods of delivery is legitimate. Likewise, the stakeholders are accountable when they push for e-learning for the purpose of revenue generating without commitment for reviewing quality.

Variables and Measures

Borrowing from the Spelling Commission Report (Spelling, 2006), we have conceptualized "ethics" in terms of accountability and responsibility on the part of the faculty and the stakeholders (Finlow, 2008). Providing quality instruction and solid contents are among the moral responsibilities and obligations of the instructor regardless of the teaching environment. However, the question remains whether the e-learning environment masks these responsibilities and obligations. Conversely, these qualities for the stakeholders means meeting the challenges that they place upon the faculty by fulfilling their parts in terms of providing support and incentives for achieving quality. Quality assurance is often assessed by regional and/or discipline-related accreditation agencies. These agencies often emphasize a demonstration of established standards among which are "student satisfaction and achievement of learner outcomes" (Shelton, 2011).

Sample and Data

This study focused on the faculty and student progress in a small (approximately 250 faculty and 6,500 students) university as the target empirical populations. The data was collected by the University officials in charge of online and distance learning education. Of the targeted faculty population contacted, 107 (close to 43%) completed the surveys. Of those who completed the survey, less than a third has developed a distance education course. The sample is evenly divided between those who are interested in developing a course (52%) and those who are not (48%). This may suggest the ambivalence that the faculty feels about e-learning.

Paramount among the reasons for the lack of interests in e-learning was suitability of the course, incentives, and lack of skills.

The student data reflects the entire student population of the University in 2011-2012 academic year, which entailed the student success in face-to-face courses as compared to online courses. This set of the data was provided by the Office of the Institutional Analysis.

5. FINDINGS

The first layer of the data analysis focused on the faculty obligations, which extend beyond teaching the content area of their expertise. This set of the data focused on the importance of institutional commitment and the success of e-learning programs, which also depends on how accountable the stakeholders are in providing support and incentives, and how obligated they feel toward fulfilling those promises. The data illustrates that one-half of those surveyed were not interested in engaging in e-learning. Of this group, 43 percent specifically noted that reassigned time may lead to potential interests in developing a course offered via e-learning technologies; 35.6 percent noted the need for additional compensation, and 20 percent mentioned the need for both reassigned time and monetary incentive. These findings are reinforced by 62 percent of the respondents who expressed a negative view of the support services provided the IMC. But, an interesting aspect of these findings is reflected in the view by 1 percent of the respondents on the need for mentoring or faculty team work. Other studies (e.g., Beyrer, 2010) also have reached similar conclusions about the importance of the reassigned time and the institutional "organized support" in providing quality instructions in online courses.

The second layer of analysis focused on the student success. In evaluating the quality of online education programs, eight constructs were common to the ethical issues in course delivery. These were: instructional support for administration; academic and student services; maintenance of e-learning environment and distribution of information; technological issues in environment and infrastructure; pedagogical issues in teaching and learning—specifically identifying concerns with audience and content evaluation; ethical issues including social, political, diversity and accessibility of information; human factors of interface design; online support and resources required to promote learning; and, evaluation of the processes, which include both assessment of learners and the quality of instruction (Shelton, 2011). These constructs were subdivided into two categories—Institutional and Ethical. Ethical issues focus on such things as bias, diversity, political influence, page and site design, online support, and resources and evaluation of learners and environment.

Since 2005, the University has been attempting to organize an on-line presence both in individual course offerings and fully-developed degree programs. With a student population of just over 6,000 students, about 10 percent take at least one on-line course each semester. Departments offering on-line degree programs on campus are Nursing and Allied Health: Health Information Technology, Computer Science, Math and Physics: Computer Information Systems, and Criminal Justice and Legal Studies: Criminal Justice. The Education Department offers the majority of their courses in Elementary and Secondary education in the online format. There are two departments on campus charged with oversight for e-learning development and quality assurance: the Instructional Media Center and the Western Institute. Several survey instruments over the past seven years have collected data on student and faculty satisfaction with course creation, delivery and administration and grade distribution.

A major factor in evaluation at has been the grade distribution for paired courses where online sections are compared to lecture sections in the same course to evaluate student success with comparable material. Focusing on a case (for example, the Computer Science Department), early adopters taught lecture and online sections of Microcomputer Applications and Computing Concepts I. The first year (2005) showed a dramatic disparity between student success; lecture sections grade distributions showed that an average of 75-80 percent of the students passed the course with A, B, or C while online sections reported a 60-65 percent failure rate with the majority of students receiving D, F, or FA (failure to attend). Both sections were presented the same material and both sections used WebCT as part of the course delivery, but online sections relied primarily on the materials loaded into the WebCT courseware. While all students were given the opportunity of in-office office hours, online student contact happened mostly through the email client in the WebCT.

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Through better faculty training at the University and better course content development both by instructors and publishers, the disparity of student success has narrowed. This is evident in the data for the 2011-2012 academic year. Figures 1 and 2 show the grade distributions for lecture section sand online sections for both Fall and Spring semesters.

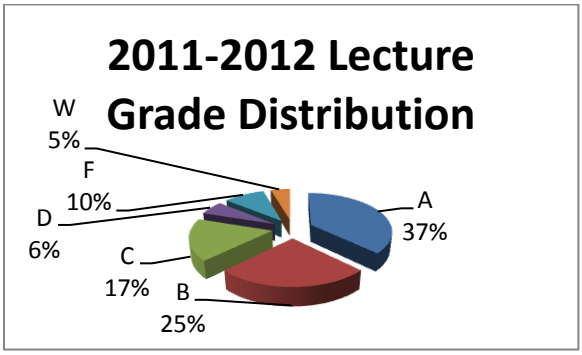

Figure 1

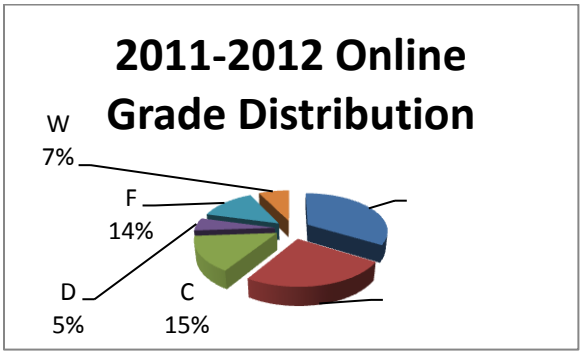

Figure 2

A comparison of the data in Figures 1 and 2 indicates that lecture sections continue to show a pass rate (student receiving A, B, or C) of about 80 percent, while the online pass rate has risen from 40 percent reporting in academic year 2005-2006, to 73 percent in academic year 2011-2012. The success of online students is due partly to better tools, a better understanding of the online learning environment, and experience of instructors. This has improved the quality and ethical outcomes as well as the reputation of the online courses offered at the University.

6. POLICY RECOMMENDATIONS

What institutional mechanisms or policy can assure responsibility, obligations and accountability? Most colleges and universities today are scrambling to develop IT networks to support online courses, which is culminating in full online degrees covering the spectrum from undergraduate to PhD programs. In this fast-paced marketplace, the playing field is being leveled by far-thinking book publishers who have moved textbooks to e-book and course materials into author and publisher supplied supports like MyITLab and MyProgrammingLab offered by Pearson Higher Education and Cengage Learning. These tools are meant to enhance the learning concepts supplied in the books with which they are bundled. They supply a rich learning environment but cannot replace an academic's mastery of his or her major school of thought. Being disciplined, the online instructor must have a mastery of his or her course content as well as the IT tools used in delivery in order to facilitate the best possible outcome for the students. The question arises: Who is qualified to teach in this new e-learning environment?

Universities and colleges who were early adopters of e-learning have developed academic integrity and ethical standards addressing the issues of qualification and academic mastery. The University of Phoenix, Park University, and Walden University, to name but a few, are accredited universities with major online student bodies which comprise 50 percent or more of their entire student populations. These universities have developed and published online ethical guidelines for both students and academics (Pepicello, 2009). Other state and private universities are beginning to see that academic policy guides and student handbooks covering ethical issues in education do not cover problems unique to the cloud educational environment.

Another question that arises from the development of content by the academic is the question of ownership of academic materials once it is presented in the IT environment of e-learning. Does the material in the online folder belong to the university for which it was created? Should the materials in the online folder be shared with other adjunct faculty at the same university with or without the originator's permission? Peterson (2003) suggests that "if the intent is to commercialize it or subsequently use or license" the material, then the ownership must be negotiated. These are questions that need to be addressed by e-learning academics collectively. These constructs should not be left to the political or administrative platforms.

Creativity is alive and well in the e-learning environment. The ability to share new ideas and

disseminate them is instantaneous. As the new ad for Samsung's newest phone states, "You can share data by simply tapping smart-phones together." The online classroom may not disseminate as quickly, but the information is electronic and is seen and shared by everyone enrolled in the course community. It is also available to facilitators, administrators, and web browsers. Because these new ideas are shared across disciplines, geographic locations, and ideologies, the negotiated cultural ethics must include guidelines for guarding privacy for academics and students. Respecting rights in the e-learning diversified community includes openness to accept new and differing opinions and cultural differences. In this environment 'think before you write' should not be construed as diminishing academic freedom; once ideas are posted in the e-learning environments they have a life of their own (Gardner, 2007).

Academics must establish a strong presence in their online courses. Tools like Skype and other Web interfaces can provide the opportunity to actually meet students face-to-face. Ensuring the integrity of online programs is the focus of most e-learning programs. Strategies that make academic integrity easier to manage are 1) the use of multiple assessment techniques, not simply administering midterm and final exams; 2) assigning more written assignments and holding discussion forums with live discussion tools, 3) administering assessment in a physically proctored setting. Instructors should seek to know their online students personally. This will increase the integrity of the program and help facilitate other academic duties such as degree advising and references (Hill, 2010).

Academics must share the task of defining and enforcing integrity standards with students. Instructors must be consistent in grading and assessment; rubrics are good tools to express grading expectations for e-learning courses. Syllabi should contain easily understood rules of conduct. What is considered acceptable group participation on projects and assignments? The academic honesty policy in the generalized student handbook for the university may need to be revised for the online forum. Material should be current and accurate. Course material should be updated and relevant for course content.

As the literature suggests, the ethical standards applied to e-learning are primarily dependent upon the community itself; however, the next few years will undoubtedly see a push by the accrediting institutions to standardize criteria for online programs. Empirical studies on this issue could help academics govern themselves and construct their own set of guidelines, which will include criteria for protecting intellectual property rights as well as academic freedom. Business models, such as SWOT, are applied and used in different cultures and settings with positive results. Collaborative e-learning models developed by academics already teaching in the online forum will be more relevant.

7. CONCLUSIONS

In summary, verifications of ethical issues in e-learning and the decision on the nature of use or abuse of IT in e-learning, which is the new academic techno-cultural environment, is not something new. The ethical concerns regarding the decision on the type of IT are not matters of personal preferences for the end users. The decision is a top-down decision by the stakeholders; but what matters here is the role that the academic plays in collecting, processing, transforming, storing, and presenting the "information" learned. These are among the activities and processes in e-learning that are magnified by IT. The literature shares a common thread defining the role ethics plays in information technology in designing and delivery of e-learning modules and courses. The shared set of ethics and its implications are based on the end users' perspective and shared cultural values. Thus, ensuring ethics in e-learning necessitates identifying vulnerable end users, and formulating a set of guidelines to assure that ethical codes that govern the end users' behavior do not lag behind technological advancements.

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