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ONLINE INTEGRITY: STUDENT AUTHENTICATION IN AN ONLINE COURSE

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INTRODUCTION

Distance education has been around for over 100 years and has progressed from print based or correspondence study to radio, television, audio or video recordings, and on to video conferencing and computer mediated instruction (Wang and Gearhart, 2006). In 2000, Dooley and Murphy stated that delivery via the Internet was relatively new and challenging for higher education institutions. Most would agree that even though delivery via the Internet might no longer be considered “relatively new,” it can still be considered challenging.

According to Gearhart (2010), “One of the issues that has been around as long as there has been distance education is the issue that the student registered for the course is the student doing the work” (p. 60). Faculty members who teach fully online courses increasingly face the issue of verifying that the student taking an online exam is actually the student who is enrolled in the course. Miller and Young-Jones (2012) surveyed 639 students to compare cheating on assignments in online classes to cheating in face-to-face classes, but the study did not investigate whether the student enrolled in the online class was the student completing the work. Rowe (2004) stated, “The prevention of plagiarism has been the subject of much attention, but insufficient attention has been given to other problems of dishonesty in online assessment” (p. 1).

Winneg (2014), founder of multiple software solutions to ensure student authentication and secure online testing,

suggests that measures to ensure online integrity should be decided and implemented by the institution rather than its faculty members. The authors of this paper are not suggesting that institutions should necessarily dictate the use of specific authentication, but rather suggest the benefits of having the availability of authentication options. Authentication will likely become a significant discussion for both the purposes of governmental funding and institutional integrity.

REVIEW OF LITERATURE

Institutional Implications: Government Guidelines and Regulations

Online education has presented new challenges not only for students, but also for faculty. The issue of knowing who is doing the work in an online class is still a large problem. Online testing and verification of student identity is becoming increasingly important.

The Council of Regional Accrediting Commissions (C-RAC) has developed new Interregional Guidelines for the Evaluation of Distance Education (Online Learning). These new regulations, called the Nine Hallmarks of Quality, expand the standards specific to online education from 22 to 55, and they have been adopted by all seven of the regional accrediting organizations.

One of the most challenging is the ninth hallmark. The ninth hallmark, as seen below, suggests that SACS and other regional accrediting agencies will be

expecting institutions to do more in regard to online student authentication to ensure that the student who enrolls in a class is the one who completes the work in that class.

The institution assures the integrity of its online offerings.

Analysis/Evidence:

- The institution has in place effective procedures through which to ensure that the student who registers in a distance education course or program is the same student who participates in and completes the course or program and receives the academic credit. The institution makes clear in writing that these processes protect student privacy and notifies students at the time of registration or enrollment of any projected additional costs associated with the verification procedures. (NOTE: This is a federal requirement. All institutions that offer distance education programs must demonstrate compliance with this requirement.);
- The institution's policies on academic integrity include explicit references to online learning;
- Issues of academic integrity are discussed during the orientation for online students;
- Training for faculty members engaged in online learning includes consideration of issues of academic integrity, including ways to reduce cheating.
- *Institutions are encouraged to consult Best Practice Strategies to Promote Academic Integrity in Online Education

*Best Practice Strategies to Promote Academic Integrity in Online Education,

prepared by WCET and available at <http://www.wcet.wiche.edu/learn/student-authentication>

The Inspector General of the U.S. Department of Education, Kathleen S. Tighe (2011), highlighted the growing vulnerability of online education to financial fraud, thus leading to greater expansion of regulations and oversight of online learning. Dr. Belle Wheelan of SACS said at a conference regarding these guidelines that it will become a big issue for higher education institutions in the near future. Case in point is the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) lists first in the Guidelines in the Application of the Principles of Accreditation to Distance and Correspondence Education the following requirement:

At the time of review by the Commission, the institution must demonstrate that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course or program and receives the credit by verifying the identity of a student who participates in class or coursework by using, at the option of the institution, methods such as (1) a secure login and pass code, (2) proctored examinations, and (3) new or other technologies and practices that are effective in verifying student identification.

Implications for the Professor

Historically, professors teaching courses that prepared students for stringent exam-based certifications, such as those entering the nursing profession, either required students to come to the main campus for testing or

required the student to arrange a live proctor to verify the identity of the student and oversee the student completing an exam. The question arises as to whether technology has now developed to the point that these types of live proctoring practices are now antiquated.

With the proliferation of online learning, the two simple questions - "Who are you?" and "How can you prove it?" - are requiring increasingly sophisticated means of identification and authentication (Smedinghoff, 2012, para 1).

Technological solutions are becoming commonplace; Apple's new iPhone 5S "will be the first widely popular gadget to incorporate a fingerprint scanner as a security measure. It likely won't be the last" (Pagliery, 2013, para 1). Exam security technology, in which a webcam captures and records the student's environment as he or she completes the exam, is a fee-based service that requires the student or the institution to pay on a per exam basis.

In April 2011, the White House released a "National Strategy for Trusted Identities in Cyberspace" (National Strategy, 2011) that described digital authentication methods that would be portable across different systems and entities. Privacy will be a consideration in solutions adopted to verify student identity (Gearhart, 2010). Although more instructors of online students are skeptical that the work submitted is actually completed by the student who is enrolled, authentication systems are still in development, with newer forms of authentication such as biometrics not commonly used in education (Hoshiar, Dunlap, Li, & Friedel, 2014).

PURPOSE OF THE STUDY

This study sought to determine attitudes of faculty who taught fully online in regard to the difficulty of teaching online as well as whether test proctoring was required for online courses.

PARTICIPANTS OF THE STUDY

Participants of the study comprise a convenience sample from members of the Federation of Business Disciplines organization.

PROCEDURES

A survey was developed and administered through Qualtrics survey software. Emails were sent based on the membership rolls from the 2013-2014 conference year.

FINDINGS

A total of 166 responded to the survey. The total group (166) comprised 74.8% Caucasian, 11.8% Asian, 5.1% Black/African American, 2.8% Hispanic/Latino, 5% Mixed and Other.

For the online testing questions there were 88 of the 166 respondents indicating they teach online. The ethnic makeup of the online teachers was very similar to the overall makeup with only the Hispanic/Latino showing a notable difference with none (0%) of the respondents of the online total as opposed to the 2.8% of the overall total.

Gender composition comprised 93 males (56%), 68 females (41%), and 5 no reported gender (3%) for the total group (n=166). The number when filtered for the online faculty only was very similar with 53.4%, 42%, and 4.5% respectively.

Respondent age breakdown found 11.8% in the 25 – 34 age group, 18.5% in the 35 – 44 age group, 18.5% in the 45 – 54 age group, 33.1% in the 55 – 64 age group, and 17.4% in the 65 and over age group. More than half of the respondents had been teaching 15 years or more. The age groups for those teaching online included 4.5% in the 25 – 34 age group, 17.2% in the 35 – 44 age group, 24.1% in the 45 – 54 age group, 37.9% in the 55 – 64 age group, and 16.1% in the 65 and over age group.

When looking at the teaching experience of those taking the survey, the percentage of the largest total percentage of the group fell in the 20 – 29 years of teaching grouping with 23%. However, when filtered for only those who teach online, the largest total percentage remained in the 20-29 years of teaching with 33%.

Respondents to the survey were also asked their academic rank. When looking at those faculty members teaching online courses (n=88) the largest number were at the rank of full professor (39.8%). The others were: associate professor (19.3%); assistant professor (25%); lecturer/instructor (9%); and adjunct/other (6.8%).

All participants (n=166) were asked if they felt when it came to teaching an online course whether it was harder to teach, easier to teach, or about the same difficulty. The responses from those who teach online differed to some degree from those who do not teach online classes (n=88) as shown in Table 1.

Table 1: Responses to: Do you feel that teaching an online course is harder, easier, or about the same level of difficulty as teaching an on campus course?

Online Teaching	N	Harder	Easier	About the Same	Missing
Yes	88	65.9%	6.8%	27.3%	0%
No	78	39.7%	9.0%	23.1%	28.20%

The question was asked, “If you teach an online course, do you require students to travel to the campus for testing?” Of the 88 who indicated they teach online 11.4% required students to come to campus for at least one exam. An additional 22 indicated that they do require tests be proctored, but they do not require that test proctoring occur on campus.

All participants were asked if the question ever arose in their own minds whether the person doing the work in an online class was actually the person who was receiving credit for the course. There were more than 45.3% who stated that it was a question that definitely arose, 20.9% probably yes, and an additional 17.4% who indicated that it was somewhat a concern. Only 16.3% indicated that they probably or definitely did not have the question of whether “the person getting credit for the course was the actual person doing the work in the class” arise in their own minds.

Participants were asked if their institution offered a technological solution (online proctoring) for online courses. From the total group (n=166) 114 answered this question. Of those responding, 63.2% indicated no technology proctoring was offered. Of those who indicated they teach online (n=88) 82 answered this question and 63.6% indicated that no such option was available at their institution. A follow-up question asked if the institution were to offer a technological solution such as online proctoring to use for students, would they choose to have students use the service. From the 88 online faculty members 87 responded. Of those 45.8% said “Definitely

yes,” 34.9% said, “Probably yes,” 12% said, “Maybe,” and only 7.2% said, “Probably not.”

CONCLUSIONS

Despite the number of years online education has been around, there are still many bumps in the road that still need to be addressed. Based on the results of this survey, few faculty members feel that teaching online is easier than traditional on campus teaching. Those who teach online consider teaching online harder than on campus teaching at a much higher percentage (65.9% vs. 39.7%) than those not teaching online.

Results indicated that online teaching is not being relegated to the younger, less experienced, or lower academically ranked faculty. The largest numbers were aged 55-64, those who had taught 20 or more years, and were at the rank of full professors.

Only 36% of those surveyed require that exams be proctored either on campus or in some other manner. It does appear from the responses that if a technological solution to test proctoring were made available, the number of those requiring test proctoring would rise.

RECOMMENDATIONS

Faculty need to look ahead to how they will address the identification requirements of online students. The reason for this is at least two-fold. An important reason will probably be that the government wants to make sure that the money being provided to educate students is being used for its intended purpose. They want to ensure that the money that is being provided a student goes for that particular student to receive an education.

Obviously, the faculty member would not disagree with the government’s reasoning for student identification; however, one would hope that the faculty desire would go further than just the legality of the money being spent. Faculty members take pride in their graduates. When students leave an institution of higher learning, they represent their alma mater. Faculty should take an interest in knowing that the person who is receiving the degree is not only the person for whom the money was paid to earn the degree. More importantly, faculty want to know that the person who walked across the stage and received that diploma gained the knowledge that accompanied it to go out and use that knowledge for the betterment of him or herself and society as a whole.

It is recommended that faculty be given the tools to utilize test proctoring to add validity to the degrees earned by the online students they teach without causing an undue burden to the online students.

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