

# PILOTING SAFEASSIGN AT THE UNIVERSITY OF BOTSWANA

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## Abstract

*This research reports on the SafeAssign software pilot project carried out by the University of Botswana. The software was found to be relatively easy to use by both lecturers and students, in terms of creating and submitting assignments. A higher percentage of participants agree that it can help curb plagiarism in the University. Conversely, it had some operational problems and exhibited very slow response time attributed to the size of bandwidth in the University.*

**Keywords:** Plagiarism, Originality, Integration, Matching, Direct Submit, Safe Assignment, Citation, Referencing, Academic Honesty

## 1.0 BACKGROUND

### 1.1 Introduction

The University of Botswana (UB) just like other institutions of higher learning is faced with the problem of plagiarism. This is made worse by introduction of information and communication technologies (ICTs) such as the Internet. Although we all appreciate the enormous benefits of ICTs as they bring information and other

quality online resources closer to the learners but these have on the contrary promoted academic dishonesty. When learners are given assignments they simply do a Web search and get thousands of ideas, opinions and arguments, already thought for them. The rest is just cut and paste without even acknowledging the sources. Maybe this is because we all want to appear brilliant and do that by stealing other peoples' ideas Academic dishonesty has always been very difficult for institutions to control due to a flood of resources that have become easily available through the Internet (Northern Illinois University, 2008). Many institutions around the world are searching for effective methods of preventing or reducing the level of plagiarism.

In 2006 the University of Botswana piloted plagiarism detection software called Turnitin. The pilot project was divided into two phases. In phase I the software was used as a stand alone and was to be later integrated into Blackboard in phase II. According to the findings of the pilot project phase I, plagiarism level among UB students was found to be 20.5%, which was slightly higher than other institutions (UB EduTech Report, 2007). It was also found that the plagiarism detection software reduced the level of plagiarism after students were made aware of the assignments being checked through the system. Unfortunately, due to some technical problems Turnitin could not be integrated into Blackboard. The University had to further look for alternative software that could easily be integrated within Blackboard. Fortunately, in 2008 Blackboard introduced SafeAssign software in version 8.0. Therefore the Learning Management System was upgraded from version 6.1 to the new version which has the plagiarism detection software. Besides the advantage of being integrated within Blackboard the service is offered for free.

### **1.2 The Purpose**

The purpose of this document is to report on the SafeAssign plagiarism detection software pilot project carried out by the University of Botswana. The project was done in Semester 1 2008 from August to December.

### **1.3 The Objectives of the Pilot Project**

The objectives of this pilot project were to:

- To determine the ease of the use of software
- Identify problems encountered when working with the software and provide recommendations on its future use
- Roll-out SafeAssign Originality Detection software to a wider UB community

## **2.0 LITERATURE REVIEW**

### **2.1 Reports from other Institutions using SafeAssign**

SafeAssign software is relatively new plagiarism detection software which has recently been available as a stand alone tool since August 2007 and was integrated into Blackboard Academic Suite in February 2008 (Nagel, 2008). Several institutions that have been using Blackboard and WebCT have now started using it mainly because it is free unlike other tools where an institution had to pay a license for a Learning Management System (LMS) and the other for a plagiarism prevention software. The University of Botswana paid 35 700 USD for Blackboard one year contract in 2007 and about 500 USD for Turnitin software (for 2000 students). However, because Safe Assign is a new software an extensive research has to be carried out to study its performance and make a comparison to the already known plagiarism software such as Turnitin, Mydropbox, Docol©c, etc. The academic staff at Palomar College participated in a study to examine Turnitin and SafeAssign to see which of the two was superior. They were asked to evaluate the two tools in terms of ease of use, accuracy and comprehensiveness, technical problems, and turnaround time (Internet, 2008). A higher percentage of the participants recommended Turnitin. But this could have been due to unfamiliarity with SafeAssign as most were accustomed to using Turnitin.

On the other hand in Nagel's paper entitled *Plagiarism Tools Scans 1 Million Papers* a Biology professor at Stony Brook University said SafeAssign is a very powerful tool and because of the size of the laboratories, they have many sections teaching the same material each week. SafeAssign creates a common filtering point for all of the assignments, even from students who have different instructors or who are taking the same course during a different semester. Similarly, Chabot College uses SafeAssign software and has found that it has some advantages to their academic staff such as,

powerful, flexible, and effective plagiarism prevention that can be used with online and on-campus courses; comprehensive and interactive Originality Reports support lecturers' decision-making in regards to academic integrity and; tightly integrated with the Blackboard Learning System, convenient and free. On the contrary, Steve Clark at Athens State University (2008) says ever since Blackboard took SafeAssign in 2007 they have been plagued with problems. SafeAssign seemed to constantly conflict with other Building Blocks of Blackboard. Similarly at Johnson County Community College they had problems using SafeAssign since mid-September, for example the software was non-functional and exhibited very slow response times, (JCC, 2008)

After an extensive review and analysis of the University of Minnesota (U of M) usage of the Turnitin software, and because of a recent change in the cost structure by Turnitin, the University made the determination that it would no longer support Turnitin. The Office of Information Technology at U of M found that SafeAssign, which already is bundled with the WebVista course management structure, is a viable alternative. At the University of Minnesota (U of M) they have found that SafeAssign is easy to use and enables instructors to compare student writing to other writing, both published and unpublished, more quickly and with greater thoroughness. Instructors around the world are working very hard to educate the learners by offering guides and tutorials to explain types of plagiarism and how to avoid it. This growing awareness is forcing universities and institutes all around to help students and faculty understand the meaning of academic integrity, plagiarism and its consequences (Internet, 2008). Therefore these technologies should be used only as one among a variety of available strategies for preventing plagiarism. For example, making it clear to students that you will not tolerate plagiarism; explain relevant University policies; academic standards of integrity, and legal issues; discuss plagiarism as a moral and ethical issue; create writing assignments that are meaningful and are specifically tailored to the course; teach students how to correctly paraphrase, quote, and cite sources; discuss the benefits of citing sources properly, and emphasize that command of the skills involved will strengthen their work; etc.(U of M website, 2008).

The Academic Honesty policy for students approved by UB Senate in 2006 has the following strategies that are to be employed to address the issue of plagiarism or academic dishonesty: Academic staff to discuss plagiarism and cheating with the students at the start of the course; use teaching and assessment methods that promote academic integrity; apply effective means to prevent and detect academic dishonesty of students; deal appropriately with every instance of academic dishonesty, and initiate the process for disciplinary action if necessary. It is imperative that if lecturers are going to use this type of technology for teaching and learning they should also be knowledgeable about University policies related to and dealing with plagiarism cases and make their students aware of these policies as well (UMN Website, 2008)

### **3.0 METHODOLOGY**

#### **3.1 Training and Data Collection**

The pilot started with the training of instructors on how to use the software. Two training workshops were run. During training instructors were shown how learners should submit their assignments with the hope that they would pass on the skill to their students. Over and above training two types of questionnaires were developed, one for learners and the other for instructors. These instruments were meant to get views of the participants from their experiences when using SafeAssign software. The items in the questionnaires were divided according to the following criteria:

- Academic Honesty policy and Academic writing
- The ease of use of Safe Assign software
- Problems encountered using Safe Assign
- Recommendations for future use

Each item was measured using a qualitative scale of Strongly Disagree, Disagree, Agree and Strongly Agree. Each response was coded with numerical values of 1, 2, 3 and 4, respectively.

#### **3.2 Sample Population**

The project was open to all instructors but had to use those who had online courses in Semester 1 2008. In overall 2, 291 students from 27 courses were used in the project. Table 2 below shows department that participated in the pilot project.

Table 1: Department that participated in the pilot and number of students

<b>Faculty</b>	<b>Department</b>	<b>Courses</b>	<b>No. of students</b>
Business	Accounting	FIN720	15
	Management	MGT 410	108
CAD	CSSU	GEC 111 (Business)	535
		GEC 111 (Home Economics)	
		GEC 111 (Humanities)	
		GEC 111 (Science)	
		GEC 112	
Education	Educational Technology	EDT 543	160
	Primary Education .	EPA 303	
FET	Mech. Engineering	MMB 222	625
	Mech. Engineering	MMB 314	
	Mech. Engineering	MMB 413	
	Industrial Design and Technology -	DTB 413	
	Industrial Design and Technology -	DTB 210	
	Arch. & Planning		
	Mech. Engineering	MMB 417	
	Electrical Engineering	EEB 211	
	Mechanical Engineering	MMB 222	
Humanities	LIS	LIS 634	40
		LIS 403	
Science	Environmental Science	ENV 302	519
	Environmental Science	ENV	
	Computer Science	CIS472	
	Environmental Science	ENH211	
	Environmental Science	ENV 302	
	Environmental Science	ENV 383	
Social Sciences	LAW	LAW 251	289
	LAW	LAW 351	
	LAW	LAW 202	
	Demography	POP 200	
<b>Total no.</b>			<b>2, 291</b>

## 4.0 RESULTS AND ANALYSIS

### 4.1 Academic Honesty policy and Academic writing

Question 1 was to establish whether students were aware of the Academic Honesty Policy document for students, which was approved by the University Senate on the 22<sup>nd</sup> November 2006. This policy document seeks to promote, among others, the highest standards of academic honesty and integrity for all students and to enforce these standards by means of fair, objective and expeditious procedures. The survey results show that majority of students are aware (see Fig 1). The other aspect that the survey wanted to establish was whether students are shown how to write academic papers, citation, referencing and acceptable academic writing (Question 2). The responses from lecturers also indicate that indeed students' are aware of the Academic Honesty Policy and have been taught how to write academic papers (see table 1). It is imperative that students are taught these things to reduce the level of plagiarism and ensure that lecturers use this technology for teaching and learning tool to check for originality in students' papers.

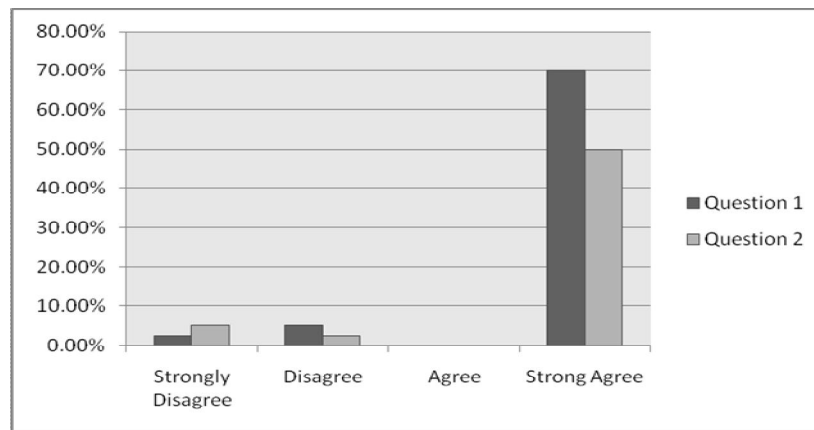


Fig.1: Students' Awareness of Academic Honesty policy and Academic writing

Table 2: Lecturers responses on Academic policy an Academic writing

	Strongly Disagree	Disagree	Agree	Strongly Agree
Awareness of Academic Honesty policy	20.0%	0	60.0%	20.0%
Academic writing	0.0%	0.0%	75.0%	25.0%

## 4.2 The ease of use of SafeAssign software

Questions 3, 4, 5 and 6 were about the ease of use of the software in terms of the process of submitting the assignments, the amount of time it takes to load SafeAssignment page, the ability to submit drafts and view originality reports and the amount of time the software takes to process the assignments. According to the results in table 2 a higher percentage of students who participated in the pilot project found it relatively easier to use the SafeAssign software.

Table 3: The ease of use of SafeAssign software by students

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strong Agree</b>
Question 3	10.0%	12.5%	<b>47.5%</b>	30.0%
Question 4	17.5%	27.5%	<b>45.0%</b>	10.0%
Question 5	10.0%	22.5%	<b>37.5%</b>	30.0%
Question 6	12.5%	12.5%	<b>65.0%</b>	10.0%

Similarly, lecturers found it easy to create content links for SafeAssign and Direct submit with 50.0% Agree and 50.0% Strongly Agree, and to use the software, that is, create assignments and for students to submit their assignments. Conversely, 50.0% of the participating lecturers were concerned about the long time it takes to load Safe Assignment page for one to create the assignment for students. In terms of the amount of time it takes for SafeAssign to process students assignments and give originality reports 75.0% chose Strongly Agree and 25.0% Disagree. The delay in the response time and processing of assignments is attributed to lower bandwidth at the University because SafeAssign is a hosted service and therefore one requires an international bandwidth to access the service.

In Question 7, which was about the ability of SafeAssign to identify online sources used in the assignments 42.5% Agree and 40.0% Strongly Agree while the rest were of the contrary. On the other hand 100.0% of the lecturers agree that it does that. There was an argument that it irritates because it highlights even those materials that



are properly attributed and even unnecessary things such as titles. Because of this 40.0% of students Disagreed and 5.0% Strongly disagreed (Question 8) that the software help to identify material that are not properly cited in students assignments, and 42.5% and 12.5% Agree and Strongly Agree, respectively and 33.3% of lecturers chose Disagree with 66.7% Agree. However, despite these conflicting views it should be understood that the software matches the text in students assignment to those that are on the Internet and it's upon the instructor to exclude properly referenced text and ideas and reprocess the assignment. This will reduce the percentage matching.

There was a general consensus by the students participants (50.0% Strongly Agree; 32.5% Agree) that SafeAssign software can reduce the level of plagiarism in the university. On the same item 66.7% of lecturers chose Agree and 33.3% Strongly Agree. Similarly, 53.8% of students Agree and 20.5% strongly agree that the software can help educate students on how to reference borrowed material and ideas in their assignments (Question 10). 100.0% of lecturers selected Agree. Fig.2 below shows the response from students regarding whether they recommend safeAssign software to be used by all university departments to reduce the level of plagiarism (Question 11). A higher percentage recommends it but caution that care should be taken not to use the software to trap students. Instead, students should be informed on how to avoid being caught by the software. 100.0% of participating lecturers chose Strongly Agree.

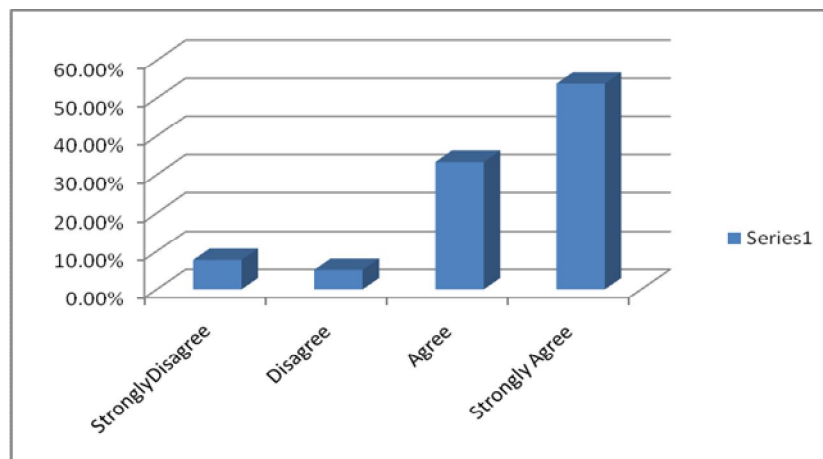


Fig.2: Students recommendation of SafeAssign software

### **4.3 Problems encountered using Safe Assign**

Since UB started using SafeAssign in August 2008 the software has never been stable and seemed to have similar operational problems as was experienced by Athens State University (Clark, 2008). It started with some online courses giving an error message - *Login failed: Request is invalid. Corrupted MAC received. Contact your administrator if needed.* Through some investigations it was found out that online courses with an “&” character on their titles were the ones giving the error message and thereafter replacing it with the ‘and’ word the error message disappeared. Henceforth, titles of all online courses had to be checked and edited accordingly.

The biggest problem UB is now facing with this software is that it exhibits very slow response time. Safe Assign is a hosted service with servers residing in the United States of America, so one requires a larger bandwidth to access this service. It takes at least 5 minutes to login to SafeAssign and on average about 3 minutes to get Create SafeAssignment Form. This is rather too long and as such the users may end up losing interest in it. To get originality reports, although in the manual it says a few minutes, in UB it takes several hours sometimes a day to get feedback. It has also been observed that SafeAssign software is somehow tied to clocks for verifying valid information and therefore it's critical that the time at the server level be adjusted so that it's in synch with others. Apparently, the main reasons for all these problems seems to be due to lower bandwidth because institutions where the bandwidth is not an issue SafeAssign works perfectly well. Some of the problems experienced by users are as follows:

- The system accept only a certain number of submissions per assignment, and above that it rejects any further submissions – so not suitable for larger classes.
- It identifies even small things such as name of institution, titles, this waste the lecturers time as he/she has to go through the entire document checking out these material only to find that most of it does not qualify to be regarded as plagiarism.
- the system fail to work sometimes (not stable)

## 5.0 CONCLUSIONS

The objectives of the pilot project were to determine the ease of use of safe Assign, identify problems in using the software and make recommendation for future use. According to the findings of the survey carried out, the majority of students are aware of Academic Honesty policy and have been taught how to write academic papers. In terms of ease of use of SafeAssign software both students and lecturers did not find any major difficulties and say it is capable of helping curb plagiarism in the University. It has been observed that the software had some operational problems and exhibited very slow response time. Most of the problems encountered were addressed and solved but that of speed has not yet been resolved. This was attributed to size of bandwidth in the University and until this bandwidth is increased the issue will stay. Therefore the participants recommended that the IT department should expedite the process of increasing bandwidth otherwise efforts of introducing innovative technologies such as Safe Assign would be frustrated.

Despite the problems observed when using the software, the participants recommended that it should be rolled-out to the entire UB community as this would help reduce the level of plagiarism. However, this technology should be used as one among other available strategies for preventing plagiarism. For example, sensitizing both students and lecturers on legal, moral and ethical issues surrounding plagiarism, creating assignments that are meaningful and are specifically tailored for the course; and teaching students how to correctly paraphrase, quote, and cite sources. The pilot project just like any research study had some weaknesses. The duration for the pilot was too short, only 4 months. This did not allow instructors and learners to extensively use the software. Some instructors had big workloads and teach very large classes as such could not use the software as they would have liked. Lastly, the issue of low bandwidth discouraged most enthusiastic instructors in using the software because of its very long response time.

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