Title: Enhancing the Learning Process Through E-Transparency

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Abstract. *This paper discusses how the learning process can be enhanced through the use of e-transparency tools. It begins with introducing the concept of e-transparency, the challenges it faces and how it enhances the Hughes learning Model; the discussion then proceeds by introducing cases where e-transparency benefits learners when applied in conjunction with its roles in the entire learning process. Finally, the conclusion summarizes the paper by recommending the use of even basic network infrastructure for promoting an open learning process.*

Keywords: E-transparency, Hughes Learning Model

1. Background Information

The increase of information and communication technology applications influences education stakeholders to utilize available technology for teaching purposes. Through its policy, the Ministry of Education of Tanzania desires to integrate ICT with its education system so as to improve accessibility, quality and relevance of education provided to learners (Ministry of Education, 2007). Tan, Kwok, Neo, & Neo (2010) identified other benefits to be obtained from the use of ICT education systems; these include enhanced acquisition and use of knowledge for learners, and improved efficiency and effectiveness of management of the learning process.

ICT is useful in facilitating physical classes and distance learning; since the installation of ICT infrastructure is one of the requirements to be fulfilled before a higher learning institution is registered, all Universities of Tanzania are supposed to be connected to the internet (Tanzania Commission for Universities, 2004); however the level of utility of such tools to the learning process differs from one institution to another.

Apparently, the use of internet technology has brought more opportunities to local universities which steer their development through cooperation with foreign institutions and between themselves; for example Mzumbe University has academic collaboration with Bradford University (UK), Vrije Universiteit Amsterdam, Nairobi University and others (Mzumbe University, 2010). There is a wide exchange of experience between learners and trainers from partner institutions; a good example is that of Mzumbe University with her partner Bradford University of UK. Students are able to interact with internal web features of portals owned by each partner; additionally, exchange programs add value to skills and competency for local staff and students who use accessing online features to report their learning progress abroad.

Regardless of achievements and prospects of using ICT in the education sector for enhancing learning processes; there are challenges preventing users from exhausting potentials embedded in it (ICT learning systems) while promoting innovation. Other people use ICT as a method of entertaining students or as a tool to rescue them from administrative pressure (Tan, Kwok, Neo, & Neo, 2010); while it is important to

educate users on the importance of ICT in learning, websites have to be well designed to meet the needs of users in local institutions as intended (Wijekumar, 2005).

This study address the notion that minimise the importance of e-transparency systems in enhancing the learning process; additionally it will reveals how e-tools can effectively be used to impart knowledge and skills to learners (Tan, Kwok, Neo, & Neo, 2010).

2. Statement of the Problem

In academic settings, relationships between a student and a teacher are bound by principles which provide guidance to activities and decisions necessary for learning objectives to be achieved (Jay, 2009). Processes which guide these activities must embrace openness which eventually enhances trust among actors, accessibility of information and innovativeness (Kiknadze, 2007; Lubua & Maharaj, 2012). Through openness in training and assessment processes, education objectives are more likely to be met. The use of ICT proves its relevance in promoting academic openness which places its focus in designing and using online interactive modules while promoting learners interactions; however the challenge remains as to how to equip students with relevant skills needed to develop their career with the aid of ICT (Sivapalan & Wan Fatimah, 2010). This paper discusses the role of e-transparency in enhancing learning processes in Tanzania.

3. Significance of the study

This paper reveals how the application of e-transparency in higher learning education systems: -
  i.   Provides open access to data and information through a wide range of academic sources of materials
 ii.   Provides room for open discussion by breaking down of barriers between teachers and students
iii.   Provides means for communication, storage and sharing of information
 iv.   Can enrich research through consistent results obtained through the use of available technological tools for analysis of data.
  v.   Promotes originality and innovation due to immediate access to new ideas and the use of originality testing tools
 vi.   Promote open and transparent assessment process
vii.   Promote free collaboration between students

4. Methodology

Data used in this study were both primary and secondary; Primary data were obtained through the identification of e-transparency cases based in Mzumbe University and its collaborating education partners. Case studies on online systems and traditional methods of learning were careful studied so as to obtain data, which were complemented by the review of the literature.

5. The Concept of e-transparency

Transparency is fully expressed when there is lack of hidden agendas and conditions, accompanied by the availability of full information required for collaboration, cooperation and collective decision making (BusinessDictionary, 2011). In academic environments, participation of stakeholders in designing and evaluating the progress of activities carried out by their institution is almost mandatory; this ensure that those entrusted with leadership or supervision act ethically while fulfilling their obligations (Onyach-Olaa, 2003). In order to fulfill these obligations, the supervision must be accompanied by timely and

useful information while consulting stakeholders in matters that requires their input (Boyoung & Jinwoo, 2001).

In higher learning institutions valuable information can be available to stakeholders (teachers, students, parenct, sponsors, government etc.) through either traditional or electronic means. Electronic media are more effective for sharing information with people, hence the level of transparency (openness) to both students and teachers in the learning process is enhanced, (Abu-Dhabi-Government, 2011). It (transparency) simply involves the acquisition, dissemination, and use of information for decision making and when these activities are conducted electronically they form what is known as an e-transparency system (Rojnica, Milovcic, & Cicvara, 2004).

Whenever electronic media are applied they engage learners and teachers in the process of knowledge development (Abu-Dhabi-Government, 2011); however it is also possible for electronic media to be used against academic stability in learning institutions; for example, organizing riots or spreading malicious information (Van Niekerk, Pillay, & Maharaj, 2011)

It is in the best interests of teachers and managers in learning institutions to take advantage of these powerful tools to strengthen their relationship with students and parents, thus minimizing the chance of boycots of classes in Universities while enhancing the learning process. There are three levels for establishing e-transparency environments (Kiknadze, 2007). The first level involves providing information to the stakeholders through online media. The public is able to accesses information about different matters but cannot react to such information. In the second level, the management (academic supervisors) provides online information to stakeholders together with consulting them for feedback about different issues; for example, a teacher can introduce a topic which requires information that involves online discussions or opinions gathered from students and other stakeholders. This can be through online surveys, polls or even online chat rooms that facilitate such interaction. Thirdly, the team can use an e-platform in facilitating various decisions. It can request feedback from studenst and other stakeholders' proposals on the table, which in turn has a direct impact on decision-making.

Taking Mzumbe University of Tanzania as a case study for this paper the following tools are generally used as platforms for e-transparency; these includes the gereral University Portal (www.mzumbe.ac.tz), the e-mail system (http://webmail.mzumbe.ac.tz), academic registration system (www.aris.mzumbe.ac.tz/),the e-learning system (http://elearning.mzumbe.ac.tz/), library system (http://library.mzumbe.ac.tz) and Data Analysis System (http://dara.mzumbe.ac.tz) .

6. Challenges of e-transparency

The trend of e-Transparency usage in the world varies (Stoica, 2009); this suggests that more people understand the importance of transforming their methods of working with information from traditional to modern through Information and Communication Technologies. While this establishes an important milestone for learning institutions, a number of concerns arise during implementation that range from social, financial, technological, and security issues.

The availability of finance is a critical requirement for the implementation of e-transparency systems. At the institution level, the following e-transparency priorities are often subverted because of financial constraints; these includes innovation, maintenance, acquisition of programs, hiring of employees, and training (Mlaki, 2007); in this case higher learning institutions of developing countries are more vulnerable (Elmendorf & Ottenhoff, 2009).

Rapid innovation within the ICT sector results in dynamic information sharing processes within the learning environment, (Kiknadze, 2007). Users demands systems which are friendly, effective and efficient. In early e-transparency developments, institutions dedicated their efforts to putting their information online in order for users to access them. Most of such information flowed from administrators to users. However with changes in technology the need for system re-engineering became inevitable; users now demand to share their opinions among themselves and even with their supervisors/management (Ailioaie & Kertesz, 2003).

The intention to share information with the public has to be balanced with security requirements. Even with total opennes, not all information should be shared. The inadvertent disclosure of confidential information leads to a lower level of trust between clients/students and their teachers and management (Lessig, 2009). However, information disclosure is a double-edged sword; on the one hand their may be a breach of confidentiality leading to a breakdown of trust, but on the other hand, these information leaks (through sometime unethical means) expose errant and corrupt officials, (Markey, 2010; Davies & Leigh, 2010; Retzer, 2010).

The benefits of openness are many, but the challenge remains that some people are not ready to embrace openness within thier operational realms. Together with the challenges facing the implementation of e-transparency systems, there is a need to increase the pace of uptake while taking advantage of the dynamic market, technology, and political priorities; otherwise the implementation may fail to benefit the audience (including learning institutions), (Weil, Graham, & Fung, 2007) .

7. Hughes Learning Model of what

Learning becomes meaningful if the learner is able to apply the skills acquired in class. It is unfortunate that sometimes educators think that they have successfully guided students in a learning process, while what they have really done is to provide students with large quantities of facts, most of which they are not able to apply in real life (Elmendorf & Ottenhoff, 2009). Practically, most courses that are introduced to students fail to meet the aim (which is knowledge building), instead students are provided with information they fail to apply.

Hughes, Toohey and Hatherley (1992) developed a model which describes what is to be done to make a successful learning process; this model recommends learner centered methods of assessment. In this model, after learners are introduced to the concept, they have to get a platform where they can apply the information they acquired. Through trial and error knowledge is developed.

E-transparency as a learning tool provides a means by which learners can test their knowledge; besides there are thousands of cases on the internet which add more information to learners as the need arise. These cases range from normal information to practical cases; student are therefore able to use the information while applying the new knowledge through the assistance from e-transparency tools available online such as images, recorded audio, video and other publications.

Be introduced to it

Get to know more about it

Try it out

Get feedback

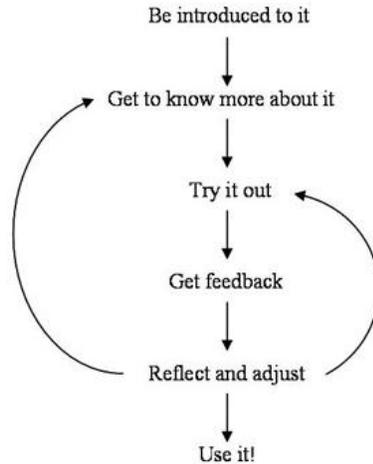Reflect and adjust

Use it!

Figure 1: Hughes Learning Model

8. E-transparency and Learning Process

ICT as a tool (through e-transparency systems) adds value to learning processes in ways that advocate the importance of openness in the process. Tools such as websites, discussion forums, search engines, chat rooms, emails etc. optimize the speed of learning while enhancing the quality and standards of the knowledge attained. According to Bannister & Connolly, (2011); full transparency covers three main stages; these are data transparency, process transparency and output transparency.

In data transparency, individuals have to access and work with data regardless of their location while preserving acuracy; meanwhile in process transparency objectives and assessment are the main focus. Objectives have to be set for each step of the process while enabling actors to assess their achievement. Transparency in academic processes equally ensure that the output is trusted by actors; additionally, the outputs stand a wider chance of becoming more favorable. With proper use of ICT; transparency in data, processes and output/results in the academic sector is optimized. The following are the ways to which e-transparency enhances the process of formal learning:-

E-transparency guarantees accessibility of data from various sources through the use of the Internet and intranet. Currently, there are billions of documents uploaded in the world wide web in form of text, voice, pictures and video (Kunder, 2012). Basic learning and research need these online information so as to complement the studies; in order to simplify the accessibility of information from the Internet there is a need to identify reliable sources or build databases to cater to the needs of learners in different subjects. Meanwhile the process for an institution to build its own online database requires much more resources; the use of portals which are available for free can be used for publishing internal data and information relevant for student learning; an example can be cited from Mzumbe University of Tanzania where the e-learning portal was freely downloaded and established. Today there are much more documents that aid in the learning process, available locally.

E-transparency establishes room for academic discussion; social tools (such as wikis, blogs ect.) have the capacity to extend the courses beyond the walls of physical classrooms. Physical classrooms offer several limitation to discussions; one of them being time constraints. The use of web based social tools address these challenges. Without the Internet students who reside on the same campus can take advantage of the intranet and extend the discussion to their residence through internal portals which do not necessarily need to be linked to the internet (Elmendorf & Ottenhoff, 2009). Learners are able to raise questions and

discuss within their peer group. If students and teachers are engaged in these systems, it is easier for them to adopt to changes as they happen, through the use of technology.

E-transparency enhances Communication between teachers, students and parents. Students and teachers need close relationships during learning while parents and sponsors need to know the progress made by their dependants. Good communication between students and teachers influence the development of the intelect and efficiency of knowledge transfer (Wigforss, 2000). With the use of e-transparency tools (which facilitate communication), the learning environment is enhanced; learners and teachers should take advantage of chat, discussion rooms for extended group discussion; tools such as dropbox and email systems for secure storage of information and document exchange. The use of e-transparency tools improves the chance for teachers and learners to interact outside of often overcrowded classrooms.

E-transparency is useful in research. Research is the center for innovation since it provides answers to issues and questions around human life. An outstanding research study is the one built on the basis of previous studies and experiences; through the use of the Internet, data necessary to justify the need for a study are obtained; additionally, e-transparency systems enable the distribution of questionnaires or the use of other tools for data collection, such as interviews.

E-transparency promotes originality and innovation. With the use of e-transparency tools originality in research work is promoted. E-transparency provides online tools which enable testing of originality so as to prevent plagiarism; for example the "Turnitin Portal" is well known for testing originality of ideas, words etc. which results from research. Originality ensures that the solution for a certain problem is concrete.

E-transparency promotes open and transparent assessment. Mzumbe University have two cases of students' progress assessments; the first case is that of joint programs where Bradford and Mzumbe Universities uses "Turnitin" software for the assessment. In this case the software prompts the student with the deadlines together with the consequences of not meeting it; it equip students with promptness in their work while avoiding any inconvenience to be influenced by failure to meet the time. Additionally, upon submitting the assignment or any other work the program shows the level of originality of the work; meanwhile it reminds the students of the recommended level. Additionally, marks distribution is shown and associated comments and recommendation from the supervisor. Through this the student should be able to know the strength or weaknesses of her arguments. The second case is that which is used by Mzumbe University in its normal course assessment; it is purely manual does not provide a level of sophistication available through the online assessments. At Mzumbe University it was noted that significantly more traditionally assessed students appealed their grade allocation. It may be justifiable to conclude that online assessment methods provide more room for students to conduct continuous self-assessment, thus reducing the need to appeal their marks; this suggest the need of promoting the use of e-transparent systems for they yields more benefits to both students, teachers and management

E-transparency promotes free collaboration between students. Collaboration is an important tool for the success of individual student and their institutions. It gives students opportunities to learn and grow through experiences of colleagues; meanwhile collaborating institutions happen to learn from each other.

9. Conclusion and Recommendations

This paper discussed how e-transparency enhances the learning process; it was therefore observed that with the emphasis put in openness; learners are able to access relevant information to complement their studies due to thousands of cases available through the Internet and intranet. Additionally, e-transparency tools enhance open discussion and collaborations between learners themselves and even with their teachers. While exercising open assessment practices in the learning process, exploring these benefits

builds trust in learners, and hence promotes the learning process. It is equally important for education stakeholders to take advantage of the fact that much can be done through available open and free programs which support academic activities.

Furthermore, in order to make a better use of e-transparency systems in the learning process, it is necessary that;

- The accessibility of e-transparency systems is improved through installing reliable power and data backups, together with efficient internet connections.
- The level of openness in administrative and academic processes has to be improved through installing tools which enables users to see the status of different launched assessments.
- Learning Institutions introduce mandatory use of e-transparency systems in academic and administrative activities so as to enhance user awareness and perception.

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