

Technology in Managing an Academic Institution with a Focus on Language Faculty

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Abstract: The presence of technology has an impact on the corporate culture of a university. The academic community has to learn to adapt and adopt the various technologies which include Managed Learning Environment (MLE), Student Learning Environment (SME) and Learning Management System (LMS) to keep abreast with the latest development in education. The technology that exists has to be managed to obtain the expected return on investment (ROI). This paper presents the initiatives taken by a Malaysian public university in planning and delivering technology services to meet its educational objectives. It discusses factors that are involved which include policy implementation, governance, integration in teaching and learning, learning management system, research and publication. The paper touches on the use of dedicated and open source systems/software in administration, teaching and learning.

Key words: ICT policy • Governance • ICT integration in teaching and assessment • ICT in research and publication

INTRODUCTION

Large sums of money are being spent to provide network technologies to institutions of higher learning. Despite the fact that many institutions of higher learning are equipped with an academic networked environment, there is little knowledge of its measurable impact on institution management, teaching and research. Performance measures, however, can only be done if the target is clear. The key issues in networked information services would need to be identified. These include ICT policy, governance, technology integration in teaching and learning, learning management system (LMS) to use, ICT in research and publication, e-content development and quality assurance.

Policy: An ICT policy needs to be established to plan, implement, co-ordinate and monitor its development in an institution. In some countries, a top-down approach is applied to ensure that its implementation is streamlined and adequate resources are available. In Malaysia, for example, the National IT Agenda (NITA) was launched in December 1996 to provide the foundation and framework for the utilisation of information and communication technology (ICT) to transform Malaysia into a developed nation consistent with its Vision 2020. The vision of NITA is to utilise ICT to transform the Malaysian society into an

information society and then to a knowledge society and finally to a value-based knowledge society. (http://nitc.most.gov.my/nitc_beta/index.php/national-ict-policies). In line with this policy, e-learning has been identified as one of the Critical Agenda Projects (CAPs) and a Key Result Area by the then Malaysian Ministry of Higher Education (Now known as Malaysian Ministry of Education). The committee for e-learning formulated a policy known as the National e-Learning Policy in 2010 (Figures 1 and 2):

Each institution of higher learning is expected to formulate its own e-learning policy based on the national policy and yet a study conducted in 2011 reflects that less than half of the institutions were yet to adopt the policy. The study suggested that the Ministry takes the initiative to ensure that the institution concerned formulates the policy and implement it [1]. Among the areas of concern at the institutional level include how to assess the level or amount of usage (for auditing purposes), basis for incentives, awards and quality assurance.

Governance: To ensure that technology is managed effectively, there is a need to have a unit that is dedicated to managing the technology at the institutional level. The presence of an e-learning coordinator at the faculty level helps to provide administrative and technical support in coordinating e-learning projects and

		Initial 2010-2011	Enabled 2012-2013	Optimized 2014-2015
Professional Development	Knowledge	25% of staff and students are knowledgeable in pedagogy and practicing it	50% of staff and students are knowledgeable in pedagogy and practicing it	All staff and students are knowledgeable in pedagogy and practicing it
	Skills	25% of required skills in Technology, and information skill has been covered for students and staff	50% of required skills in Technology, and information skill has been covered for students and staff	All of required skills in Technology, and information skill has been covered for students and staff
	Attitudes	25% of the staff, students and stakeholders possess the required attitude in e-learning	25% of the staff, students and stakeholders possess the required attitude in e-learning collaboration	All of the staff, students and stakeholders possess the required attitude in e-learning

Fig. 1: Professional Development (Asia E University, 2010; 22)□

		Initial 2010-2011	Enabled 2012-2013	Optimized 2014-2015
Curriculum & e-content	Curriculum	10% of the content designed based on e-learning	25% of the content designed based on e-learning	50% of all content designed based on e-learning focused activity
	Development	10% of all developed content are e-content	25% of all developed content are e-content	50% of e-content developed consist of open courseware and OAK
	Assessment	Initial e-assessment implementation with online activities and collaboration	Incrementation of e-assessment implementation with online activities and collaboration	Online activities and assessment are fully conducted
	Standards	The e-learning guidelines has been formulated in HEI	The e-learning standards has been developed and evaluated in institutions	National e-learning standards have been developed

Fig. 2: Curriculum and E-content Development (Asia E University, 2010; 23)□

implementing e-learning courses. Since this innovation is expensive there is also a need to allocate some funds in the annual budget to manage e-learning.

Governance also encompasses the actions taken by an institution to adopt the technology in administration and management. E-governance can bring about change in a number of processes. At the International Islamic University Malaysia, one of the public universities in Malaysia, a number of systems have been developed for this purpose. Figures 3 and 4 are two of the tools used to strengthen administration efficiency:

Technology Integration in Teaching and Learning:

The increase in accessibility to media resources changes the nature of teaching and learning. Teaching approaches change with technology. The use of podcast, for example, is increasing in teaching listening skills. Numerous studies have been conducted to determine the effectiveness of technology integration into language teaching (e.g. [2-8]). Benchmarking studies help in determining the extent to which the ICT integration is successful. In the IHEP 2000, for example, the following are listed as important benchmarks in the use of technology in institutions of higher learning:

Annual appraisal system for staff



Fig. 3: One of the management tools for the staff.

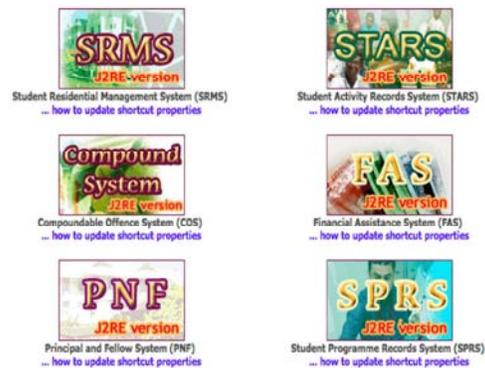


Fig. 4: Some of the systems under Student Affairs

- Institutional support;
- Course development;
- Teaching and learning;
- Course Structure;
- Student support;
- Faculty support; and
- Evaluation and assessment.

A study conducted by [9] highlighted the importance of conducting a continuous evaluation of technology integrated lessons to inform the institution of the strengths and weaknesses of its online courses.

The ICT infrastructure is also changing the management of knowledge [10]. An increasing number of institutions are making resources freely available through their open educational resources (OER) [6]. Some are also offering massive online open courses (MOOC) to provide unlimited participation from users. The technology is facilitating an increase in knowledge sharing. In relation to this, in September 2014, the Malaysian Ministry of Education launches a nationwide initiative to get all the twenty public universities in the country to integrate MOOC with their on-campus university classes through OpenLearning platform. Students at the language faculty are encouraged to ‘attend’ the courses and also to discuss with their peers which consist of students from all the 20 participating universities. In this way, they can use the language learnt in an authentic situation to discuss issues related to the lessons with a wider audience. This would enable them to get multiple perspectives on the same issue. This also prepares them to be a global citizen.

Learning Management System (LMS): At a language faculty, the ICT-supported workplace environment demands new competencies in teaching staff. To reduce technical support crisis and to maintain the correct balance between technology and pedagogy [11], there is a need to adopt a user-friendly system to organise, monitor and track learning. Cost is normally the driving decision in the selection process, giving rise to the popularity of open source systems. One of the popular LMSes is Moodle. It is an open source course management system that has the potential to fulfil the pedagogical needs of a faculty. Figure 5 shows a typical layout of a course using Moodle as a learning platform.

The adoption of an LMS allows the faculty to offer an online teaching and learning environment involving the use of multimedia applications with a certain degree of confidence. The frequency of access by students gives a good indication of the extent to which student-centred



Fig. 5: Screenshot of a Moodle Page

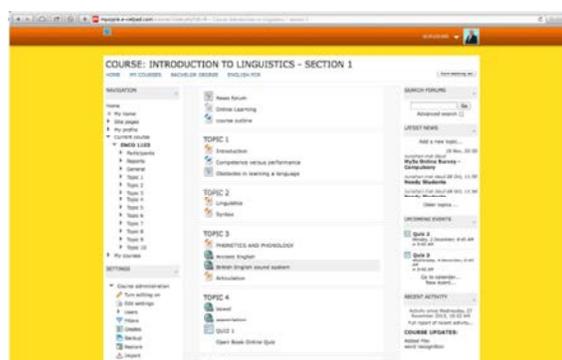


Fig. 6: Teaching Using Moodle Platform

approach is adopted in teaching. The platform is also convenient to teachers since it allows them to upload their teaching materials for students to read before class. This allows more time for discussions and activities in the class.

The LMS can also be used to assess students wherever they are (Figure 7). The use of the system, however, calls for a relook at the way assessment is done. E-assessment is suitable for open book examination which also allows them to surf the Internet for the answers to the question. Hence, the questions would have to focus on application rather than recall. Figure 7 is an example of a test that a student could answer anywhere anytime (unless specified by the instructor). Such a test, however, requires a good connection to the Internet.

Certain LMSes also allows users to generate a detailed analytical report for the teacher (Figure 8). Results could also be made easily accessible to the students.



Fig. 7: e-Assessment

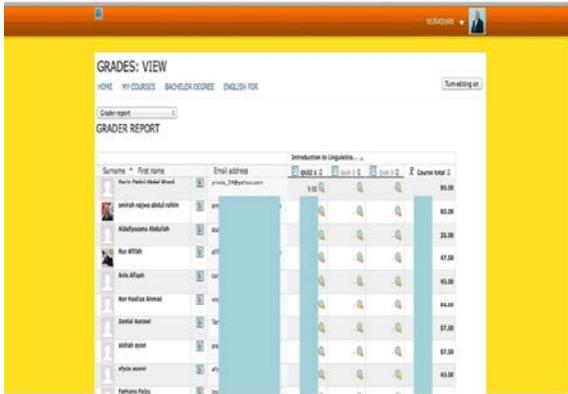


Fig. 8: Students' Grade Online



Fig. 9: Open Source System - sample 1- polling system (Socrative)

Apart from the Learning Management System, there are also dedicated systems that are confined to performing a specific function. *Socrative*, for example, is a smart student response system that is popularly used to empower teachers to engage their class (Figure 9).

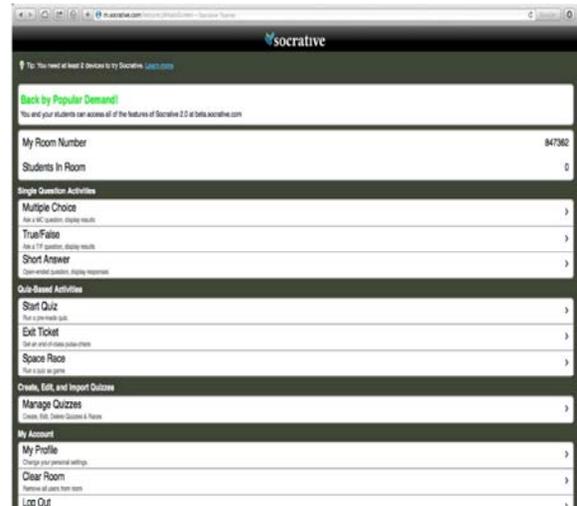


Fig. 10: Socrative - authoring questions

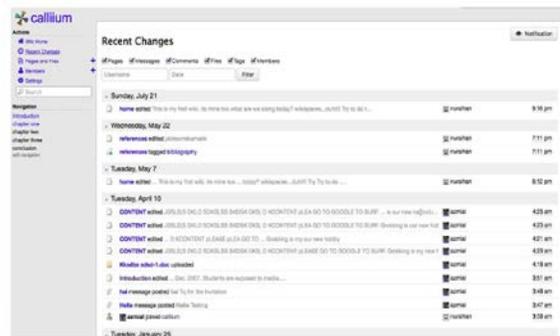


Fig. 11: Open Source - Sample 2- WIKI for collaborative writing

Socrative comes with an authoring tool for teachers to create online quizzes for students to attempt in and outside classrooms (Figure 10). The quiz can either be controlled by the teacher or the student.

Since the results of the poll (responses) can be displayed on the projector screen, it can engage all students in the classroom. Short in-class assessment of student understanding could be carried out easily.

There are also other networks that can be used by teachers for formative and summative assessments. *Wikispaces*, for example, can be used to encourage collaborative writing among students (Figure 11). It allows the teacher and students to work on writing projects collaboratively. Student contribution and engagement in real-time can be assessed.

Social networks facilities can also be used in managing a faculty. *Whatsapp*, for example, allows the exchange of messages without having to pay for the services. This service has been used by the



Fig. 12: Cross-platform mobile messaging e.g. Whatsapp

Kulliyah/Faculty of Languages and Management (KLM) of the International Islamic University Malaysia (IIUM) to communicate with its staff and students. A group consisting of the staff was created and it has been used to give and remind them of deadlines. Members include those on study leave in countries such as the UK and Jordan. *Whatsapp* is also used by the staff to share jokes and also the latest information on matters that are of interest to others. The real-time messages help the faculty runs more efficiently (Figure 12).

Apart from *Whatsapp*, *Facebook* is also a popular social network in education. Students prefer *Facebook* over email in communicating which each other and this facility has been used for online forums (forming part of course assessment). The use of a social network facilitates students writing for an authentic audience. Arrangement can be made for students to exchange information with each other. KLM, for example, arranged for an inter-cultural exchange between its students and students of a university in Palestine. The discussion ranges from academic to food and traditional costumes.

Research and Publication: Other than for teaching, the social networks have also been used by academics for research. Dedicated systems have also been developed



Fig. 13: Social Networks for Online Forum, Cross-cultural Discussion



Fig. 14: Research and Publication - e-application

by various organisations to facilitate research. Figure 14 shows the initiative taken by the Malaysian Ministry of Education in facilitating research. Submission and assessment of grant applications from faculty staff of the various universities in the country can be done online. Trees are saved as submission is paperless. Time is also saved since submission is done at a press of a button.

Information management is a key-issue in research especially in a collaborative environment. The use of services such as *Dropbox* and *Google Drive* help researchers to manage information and to work on an article collaboratively (Figures 15 and 16). Emails are popular but its asynchronous nature makes it less suitable for sharing of research works.

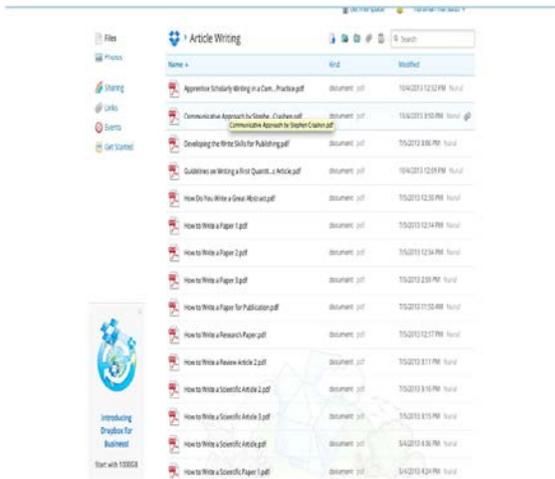


Fig. 15: Dropbox- information gathering and file sharing

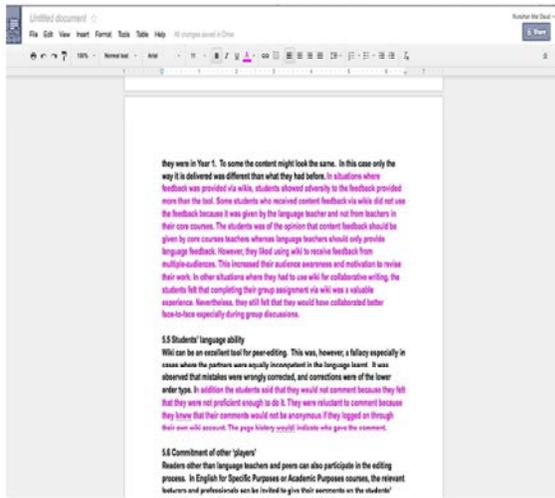


Fig. 16: Google Drive: Collaborative writing



Fig. 17: Research and Publication- e-repository

With Google Drive, colour-coding can be used by the different contributors. The facility makes it possible for academics to contribute whenever they have an idea and the time to do so.

Once articles or books are published, writers or researchers expect others to read and quote their works. Google scholar is often used to surf for academic articles. Some institutions also take the initiatives to make their staff publication accessible to others. The IIUM, for example, provides an e-repository for its staff to upload their published works (Figure 17). This forms yet another open educational resources (OER).

CONCLUSION

The technology has become integral to teaching and researching. Many Internet facilities are easily accessible for faculty members to achieve the means to an end. The fact that some of the apps are free and downloadable to smartphones makes access quicker wherever and whenever they are needed. It is observed that students, who are digital natives, have a higher expectation of its usage than faculty members who generally belong to baby-boomers and generation X groups. As technology is making life easier, more are joining the bandwagon and ready to prepare themselves for a technology-rich environment. Such a change may facilitate the use of OER and MOOC and sharing, use and re-use of knowledge will be a common phenomenon in the future. Questions have been raised on whether there is a need for physical universities as technology progresses and the awarding of degrees by a specific institution when knowledge is made accessible by multiple institutions. These issues need to be given due consideration as it has a major implication on the future of education.

REFERENCES

1. Hanafi Atan, Mohamed Amin Embi, Supyan Hussin, 2011. e-Learning Policy in Malaysian Higher Education Institutions. In Mohamed Amin Embi (Ed.). *e-Learning in Malaysian Higher Education Institutions: Status, trends and challenges*, Department of Higher Learning, Ministry of Higher Education: Putrajaya.
2. Nuraihan Mat Daud and Zamnah Husin, 2004. Developing critical thinking skills in computer-aided extended reading classes, *British Journal of Educational Technology*, 35(4): 477-487.

3. Rozina Abdul Ghani and Nuraihan Mat Daud, 2006. Synchronous Online Discussion: Its contribution to language learning, *Internet Journal of e-Language Learning and Teaching*, Jan. 3(1), <http://www.eltrec.ukm.my/ijellt/current.asp>.
4. Nuraihan Mat Daud (Ed.), 2011. *Technology and Foreign Language Learning and Teaching*. Kuala Lumpur: IIUM Press.
5. Nuraihan Mat Daud and Zamnah Husin, 2013. Mobile learning: A quasi-experiment on using SMS to support reading comprehension programme, in Mohamed Amin Embi and Norazah Mohd Nordin (eds.) *Mobile Learning: Malaysian Initiatives and Research Findings*, Kuala Lumpur: Department of Higher Education, Ministry of Higher Education. pp: 61-74. ISBN 978-983-3168.
6. Nuraihan Mat Daud and Mohd Azrul Azlen Abdul Hamid, 2013. OER@IIUM, in Mohamed Amin Embi (Ed.) *Open Educational Resources in Malaysian Higher Learning Institutions*, Kuala Lumpur: Department of Higher Education, Ministry of Higher Education. Pp. 99-114 ISBN 978-983-3168-33-0.
7. Ainol Haryati Ibrahim and Nuraihan Mat Daud, 2013 Public Speaking Anxiety in Podcast Aided Language Classes, *World Applied Science Journal*, 21(21): 12-18.
8. Faizah Mohamad and Nuraihan Mat Daud, 2013. The Effects of Internet-assisted Language Learning (IALL) on the Development of Esl Students' Critical Thinking Skills, *World Applied Science Journal*, 21(21): 50-56.
9. Nuraihan Mat Daud and Mohammed Hakim Farrah (2013) Quality Benchmarking for Online Writing Course: A Malaysian Case Study, *World Applied Science Journal*, 21(21): 117-124.
10. Katz, Richard, N., 2002. The ICT infrastructure: A driver of Change, *Educause*, pp: 50-61.
11. Rooij, Shahron Williams van, 2009. Adopting open source software applications in U.S. Higher Education: A cross-disciplinary review of the literature, *Review of Educational Research*, 79(2): 682-701.