How can DIT academic staff use Learning Management System data and reporting to make better informed decisions around student learning?

SoLAR, (Society for Learning Analytics and Research) defines learning analytics as the "measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimising learning and the environments in which it occurs" (SOLAR, 2013, p. 1). Learning Analytics (LA) offers us a lens into the student learning experience and has been identified as one of the *"fastest growing areas of research into technology-enhanced learning"* (DEHub, 2012, p. 8)

LMS such as Blackboard, Moodle, and Desire2Learn track and store vast quantities of data on students and their engagement with course content. Digital footprints left behind by students in their online engagement provide vast amounts of data. The focus of the research is to explore LA in the context of Dublin Institute of Technology (DIT) and its learning management system (LMS) namely Blackboard Learn. Information gleaned from Blackboard include log-in information, the frequency by which students access online materials, the results of assessment, student engagement with course content and discussion forum activity amongst others. This study aims to examine the data and reporting features available through Blackboard to determine if it assists lecturers and students in making better informed decisions regarding the student learning experience. This data can potentially assist lecturers in making informed decisions regarding their pedagogical practice.

In order to analyse student data within Blackboard, I will need consent from both staff and students to access course modules within Blackboard. Once approval for this study has been granted by the DIT Ethics committee I will contact the Learning Teaching and Technology Center to see if it is possible to obtain a list of lecturers who frequently use Blackboard.

The study will adopt a sequential mixed method approach with a qualitative follow-up phase building on the initial quantitative phase. The first phase will involve the measurement and analysis of data gleaned from LMS reporting to identify key statistical information regarding student activity. This will provide the quantitative data for the study.

Tracking of LMS data variables will include login times, grades, frequency of logins, user activity in forums and discussion boards, etc. Ongoing tracking and monitoring of student activity will be carried out during the course of this study.

In order to gauge lecturers' perceptions on LMS data one to one interviews will be held with course tutors in March 2014. Findings from the data analysis carried out during the first phase of this study will be explored and discussed further during the interviews to evaluate the merits of adopting LA techniques in the modules. All student data will be kept strictly confidential and all student records will be anonymised. At no point during the course of these interviews will the identity of students be disclosed. This study will strictly adhere to the guidelines set out by the D.I.T Ethics Committee Interim Policy on the 'Good Conduct' of Research in DIT.

LA is still in its infancy stage. It is an emerging tool which needs to evolve in terms of sophistication, popularity and effectiveness, particularly with Irish Higher Education Institutes. The purpose of the research proposal is not to peddle LA as the solution to every problem in education but to support the decision making process with regard to student learning. It is envisaged that the completion of this study will shed new insight as to what role, if any, analytics can play in DIT.

References

Campbell, J. P., & Oblinger, D. G. (2007, October). Academic Analytics. p20.

Creswell, J. W. (2009). *Research design: Qualitative quantitative, and mixed methods approaches (3rd ed.).* Thousand Oaks, CA: SAGE.

DEHub. (2012, May). Learning analytics: following the trail of evidence in digitised education. (11, Ed.) *DEQuarterly-Winter-2012-Edition-No-11* , 8-10.

SOLAR. (2013). *Society for Learning Analytics and Research*. Retrieved April 2nd, 2013, from Society for Learning Analytics and Research: http://www.solaresearch.org/mission/about/