

## **Student retention and learning analytics: a snapshot of current Australian practices and a framework for advancement**

*There is rapidly growing interest in the potential of learning analytics as a tool to enhance student success and retention outcomes.. This stems from the capacity for learning analytics to provide insights into all aspects of student experience at a university, including their engagement with the learning process, teaching quality, and other elements of student experience. However, there are limited resources that can inform institutions in how best to commence and deploy learning analytics. This Nuts and Bolts session will introduce the audience to learning analytics and their potential, plus report the progress of two OLT-funded projects aimed at reviewing learning analytics across Australian universities within an international context. Both projects are focused on identifying how learning analytics are currently informing teaching practice and personalised learning, and the development of applications for improving retention and identification of students at-risk, in institutions within Australia, and internationally.*

### **Context for the project**

The Australian Government has recently established ambitious targets for improving education quality and the completion rates of graduates in the higher education sector (Commonwealth of Australia, 2009). In order to meet these targets, universities have introduced strategies relating to graduate attributes, widening participation, student retention and teaching quality (Nelson & Creagh, 2013). Higher education institutions are now looking to evidence-based approaches to assess the impact of their teaching and learning practice with specific focus on improving student retention.

A core enabler in this process is the increasing amount of, and access to, student data within higher education institutions. The growth of information and communication technologies (ICTs) for learning and teaching alongside the development of more sophisticated and accessible techniques for handling ‘big-data’ has sparked new research into education data mining and modelling. The application of this multi-disciplinary research to better understand the learning process has been recently termed *learning analytics* (Siemens & Long, 2011). There is much promise associated with the field of learning analytics to address the challenges linked to improving teaching quality, student learning outcomes and student retention within a higher education context of decreased fiscal resources, increased accountability and quality assurance processes. Despite the relative infancy of this research field, many commentators have noted the vast potential of learning analytics for improving the quality of teaching and addressing concerns related to student retention. These prophetic statements range from learning analytics being the “most important educational movement of the last 100 years” (Siemens, 2011), to more tempered claims for analytics informing incremental improvements to learning and teaching practice (Ferguson, 2012). However, while there is much potential for the learning analytics to be a ‘game changer’ for higher education (Oblinger, 2012), the effective identification, retrieval, integration and use of data presents a very significant sectoral and institutional challenge (Norris & Baer, 2013).

## **Projects' scope and aims**

The projects reported on in this presentation are focussed on how learning analytics are informing the enhancement of teaching quality, the student experience and student learning outcomes as well as their application in addressing the challenges associated with student retention and the identification of students at-risk of failure. The projects seek to interrogate the assumptions underpinning the adoption of learning analytics in the Australian University sector and use this information to identify the enablers that will lead to effective adoption and utilisation.

Questions to be addressed by the projects include:

Q1. What is the research evidence for the strengths and limitations of learning analytics?

Q2. How are Australian universities planning and utilising analytics to support their learning and teaching goals; retention strategies; and identification of at-risk students? This data from diverse stakeholders (e.g. DVC Academic, Directors of IT and Learning Support, faculty and students) will inform the development of a summary document, good practice guides and report.

Q3. How are international peer universities using and developing analytics to support learning and teaching practice?

Q4. What are the future trends for learning analytics and what implications do they have for student retention and informing student learning outcomes?

## **Overview of Nuts and Bolts presentation**

This 'Nuts and Bolts' presentation will:

- Review the context and objectives for the OLT grants
- Situate the projects within current conceptual and empirical learning analytics literature
- Outline the Projects' current progress and findings.

Importantly, it is hoped that the presentation will stimulate discussion among the audience. Questions to guide the discussion will include:

1. How are learning analytics being employed within your institution?
2. What are some of the projected benefits you believe learning analytics will generate within your institution?
3. Are there limitations vis-à-vis how learning analytics are currently employed within your institution?

## **References**

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