

BIG STUDENT DATA: “I DON’T BELIEVE IT!” (LUKE), “THAT IS WHY YOU FAIL” (YODA)

Glenn J. Harrison

Presenting Author: Glenn J Harrison (glenn.harrison@jcu.edu.au)
Discipline of Biomedicine, James Cook University, Townsville, QLD 4811, Australia

KEYWORDS: Big Data, Business Intelligence, Data Warehouse, Learning Analytics, Data Mining

This presentation focusses on institutionally provided technology-enhanced learnings for academic managers, learning leaders, tertiary teachers and professional support staff from the explosion of big data and the learning analytics of our students and their learning outcomes.

Abstract

James Cook University (JCU) has provided open, live and self-serve access to (de-identified) student demographics, trends, retention, grades, transitions and completions at the subject/unit and course/program level since 2013 via its data warehouse (IBM Cognos®). This service is provided by the JCU Quality Planning and Analytics department and undergoes continuous improvement cycles in collaboration with end users (academic units). It is now cross linking to real-time Learning Analytics via Blackboard Analytics for Learn™ and external higher education big data such as the Quality Indicators for Learning and Teaching (QILT) website and national student feedback data sets.

Examples of good practice and leveraging of big data will be discussed in this presentation, including its use for: review, planning and improvement of curriculum and offerings; program/degree reporting; student cohort analysis; staff (especially sessional staff) induction and training; designing executive dashboards; degree and subject trending and modelling student loads.

As science and mathematics professionals we are (or perhaps should be) more comfortable with the presentation of big data around our students and their learning trends and contexts. Not so from the experience of this author, who has played a “story telling” role around this big data for the last three years as an academic developer. These simultaneous data feeds now available at many institutions should bring a sense of *empowerment* to academics around their teaching in times of rapid change in higher education, rather than one of fear or disillusionment of yet another administratively loaded task. Confirm your hunches, predict performance, preempt struggle and translate trends. Do try to engage with these new data sources, feel the force and use them wisely.....

References

The StarWars.com 10: Best Yoda Quotes. TM & © Lucasfilm Ltd. Retrieved June 13, 2016, from <http://www.starwars.com/news/the-starwars-com-10-best-yoda-quotes>

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Queensland, Sept 28th to 30th, 2016, page 67, ISBN Number 978-0-9871834-5-3.