ACODE 70 Workshop Report

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The workshop took place on Thursday 17th March 2016 from 9am – 5pm on the Orange Campus of the host institution Charles Sturt University. The theme was "Analytics and Adaptive Learning and Teaching".

There were 42 staff members from approximately 40 organisations represented. Abstracts of the 11 presentations with suggested pre-reading were circulated in advance. Integrated with the presentations were five group activities. Participants remained in the same group for the duration of the day. The rough notes from the group work are available at:

    Group A: http://tinyurl.com/acode70groupa
    Group B: http://tinyurl.com/acode70groupb
    Group C: http://tinyurl.com/acode70groupc
    Group D: http://tinyurl.com/acode70groupd
    Group E: http://tinyurl.com/acode70groupe
    Group F: http://tinyurl.com/acode70groupf

The Workshop Task was designed to explore some of the key elements of an institutional strategy to ensure that learning analytics contribute directly to adaptation in learning and teaching design, delivery or the learning environment. The proposed key elements of such a Strategy to be explored in this Workshop are:

- Formats and approaches to providing learning analytics
- Professional development
- Engaging stakeholders
- Learning and teaching design, delivery and the learning environment.

It was suggested that other key elements could be explored such as:

- Ethical issues
- Risk mitigation mechanisms
- Policies
- Governance
- Audiences (including students) and Purposes.

From the presentations and group work it is clear that the use of learning analytics in higher education has matured significantly over the last five years. There is for instance a project that is building a set of scenarios as customisable templates for analytics use in learning designs. Other adaptive learning systems are already available for use.

Adaptive learning systems are, however, not new drawing on developments in machine learning, artificial intelligence and intelligent tutoring systems (also referred to as cognitive tutors). A "data deluge" delivered on academics is not helpful and targeted visualisations are more effective as tools to improve student outcomes. Learning analytics can also be used not only to provide information to academics on their students but also for their academic development.

Learning analytics and adaptive learning and teaching operate within a dynamic interchange with many aspects of the organisation. The impact that these technologies will have is dependent on the expectations organizations have of learners and academics, and the model for course development and improvement A culture of true learning-centeredness and focussing on the success of the learner are critical for adaptation based on learning analytics. It is critical to work deductively from success factors and user needs, including the scholarship of teaching and learning rather than merely inductively by contemplating what can be achieved with the data at our disposal.

Analytics can go beyond tracking abstract representations of learning. Increasingly they have the potential to analyse student work such as writing, as an indicator of actual learning. Such tools can assist staff analysing student work and providing effective feedback.