Learning analytics at UniSA

Learning analytics is the generation and use of data to support improved learning and teaching. It is an evidence-based approach to evaluate, and possibly change, learning and teaching practices and the environments in which they occur. Fundamentally it is about providing timely insight into what is occurring as students engage (or don't) with the materials in their courses so that students, teaching staff and administrators can take informed action.

The University is embedding analytics gradually in the new teaching application (which is an evolution of the current teaching pillar within the staff portal) that will provide easy-to-understand graphical reports in the form of a dashboard that:

1. Assist in identifying at-risk learners by analysing students' patterns of engagement with Moodle modules (with other learnonline tools being progressively adopted).
2. Assist teaching academics in understanding the uptake and utilisation of tools and resources made available online as part of their course material.
3. Increase the effectiveness of school based teaching and learning leadership teams, along with academic developers, in constructing improved models for course delivery.
4. Provide students with insight into their own learning habits.
5. Provide academics with a high-level task list around their study period based PLE system processes.

There is a staged delivery strategy for these features. The teacher/administrator facing dashboard features will be developed first, followed by a dashboard for students to help them monitor their own engagement and progress. The kinds of questions that the visualisation of this data will answer include:

- When throughout the study period are students undertaking formative assessments?
- How does forum activity in my course compare to others of a similar subject area and course level.
- Which students have accessed my course site the least?

In 2015 this data will be further informed by statistical models which analyse student risk using information gathered and from their engagement with learnonline and cross-referenced against other information in Medici (the student information system). This will provide an 'early alert' feature for both staff and students (again the staff feature will be rolled out first) and underpin communications with students to help them stay on track with their studies.

However, learning analytics is not restricted to this institutionally driven approach. A variety of tools exist that can give teaching academics insight into their students' approaches to learning. For example, the open source web add-in SNAPP can allow teaching academics to get an informative visualisation of their students' engagement with their discussion forums, while commercial applications like Learning Catalytics can provide feedback on which aspects of a lecture students are not understanding. We are currently forming a learning analytics user group where the variety of approaches used by UniSA staff can be shared with others who are interested in exploring the potential of learning analytics for their teaching practice.