Will Alderton
Manager, Connect for Success

- Student success and retention program, monitoring 5000+ sts/sem
- Currently using Blackboard tools to monitor at-risk students
- Reactive approach → Proactive approach
- Academic analytics to identify at-risk cohorts on entry
- Learning analytics - What behaviour promotes strong performance?
- Keen to see what others are doing in this area

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Erika Beljaars-Harris (RMIT)

- Academic perspective:
  - Role of academics in using analytics
- Ethics
- Roll out of learning analytics in higher education institutions
Understanding learners from their digital footprints
Validating the effectiveness of the Moodle Engagement Block and piloting a student alert system to optimise retention
Macquarie University Teaching and Delivery grant 2015

Project aims to:
• validate with historical data learning analytics tool
• survey convenors and students about attitudes and preferences to alerts
• trial use of manual alerts using tool
• develop pilot for automated alerts using tool
Supporting tertiary teachers to make sense of engagement data

By integrating data external to LMS and data provided by students

To acknowledge the widely differing student backgrounds

Supporting tertiary teachers to use engagement data

By facilitating follow up with students inside the LMS

To improve student outcomes

To efficiently provide traceable interactions

Plan is to implement tools for Moodle and evaluate in real teaching settings

Eva Heinrich’s Interests

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Our Workshop: Classifying Learning Management System Student Activities: Sharing one approach and considering how can the data be utilised? (10:30am Thursday)

Hazel Jones
Institute for Teaching and Learning Innovation
Learning Analytics and Evaluations Units

Doune Macdonald – Pro Vice Chancellor Teaching and Learning (Acting)
Marcel Lavrencic – Senior Learning Analyst

- Refocused units following restructure
- Goals of the units are to provide relevant information to:
  - encourage innovation in teaching and learning practices
  - support student engagement
  - increase student academic achievement
  - support UQx
  - advise staff professional development
  - research
Discovering Value in Data
Sandra Milligan

• measurement of complex higher order skills and capabilities (both domain-specific and for generic ’21st C skills’)
• by developing new forms of digital assessment, calibration, certification and regulation
• using assessment evidence generated by students, peers (crowd), and machines

Out with the old...

...in with the new... to support commercially-sustainable, 21st C learning at scale
LA to inform pedagogical change:

• What are students’ learning behaviour patterns or learning profiles?
• How can we improve our course design to enhance students’ learning experience?
• How can we enhance students’ self-regulated learning and reflective practice skills?
What learning analytics can tell us about confusion?

- Confusion is a part of the learning process.

- Confusion can lead to engagement. Confusion during the training is a good thing “if it occurs on items designed to resolve this confusion” (Padros, Baker, San Pedro & Gowda, 2014) but not during the problem-solving.

- Frustration can be positively correlated to learning: on some occasions original frustration leads to engagement (Padros, et al., 2014) but often it also leads to boredom (D’Mello & Greasser, 2011) and disengagement (Greasser & D’Mello, 2012). Conditions under which frustration leads to engagement?

- Boredom was often found to be negatively correlated with learning outcomes, but some of the recent findings suggest that it’s bad only during the problem-solving and good during the training phase.

- Methods: machine-learning/data mining/decision trees, likelihood metric, extractions (PCA, cluster analysis)
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<th>Two courses</th>
<th>Tech to empower individuals and communities</th>
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<td>Grad/Undergrad</td>
<td>Active learning</td>
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<td>Active learning</td>
<td>Behavioral analytics</td>
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<td>User validation</td>
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Learning Analytics in Oz: What’s happening now, what’s planned, and where could it (and should it) go?

The choices are dizzying...

...and there are plenty of vendors with things to sell...

...and there is the fear of ending up with black boxes that limit our options...

...while knowledge and expertise are scattered around the globe...

...so where to start?

it could all be very expensive if we do something, or a high opportunity cost if we do nothing. How do we calibrate our institutional choices and see where we are at, where we might possibly go, and how we might want to get there?
Academic Writing Analytics
Rapid formative feedback on draft texts to provoke reflection

Dispositional Learning Analytics
Rapid formative feedback to stimulate self-directed change