Learning Analytics - a Brave New World or Back to the Future?
Sheila MacNeill, UHMLG Summer Conference, June 2016
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By Sheila MacNeill

Photo by giulia.forsythe
The Quantified Self

https://en.wikipedia.org/wiki/Quantified_Self
http://quantifiedself.com/

motivational or obsessional?
Everyday data in Universities

• High-level figures
• Academic analytics
• Educational data mining
• Learning analytics

http://www.laceproject.eu/faq/learning-analytics/

http://www.slideshare.net/R3beccaF/learning-analytics-fa-qs
“the measurement, collection, analysis and reporting about learners and their contexts, for the purposes of understanding and optimising learning and the environments in which it occurs”
“the process of developing actionable insights through problem definition and the application of statistical models and analysis against existing and/or simulated future data”.

“learning analytics is about collecting traces that learners leave behind and using those traces to improve learning”

Much of the noise is about big data
It is noisy, and big people make big statements about the big things it is/can/will make. But does that really apply to us in education? We don't
Have much big data, and despite the hype of moocs much of the data analysis from them doesn't really help us understand our core student population - there are very different drivers when you are a student on a mooc and a typical undergraduate. I am much more of an advocate for the use of local data - that is far more useful to us - we understand that context,
Platform(s) and product(s)
People and process
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social learning
We all love a dashboard
How may do we need? One to rule them all, personalisation versus confusion
Do they actually mean anything/ are useful?
Measuring and monitoring
What are we measuring and why?
Meaningful or meaningless measurements
What is quality
What is engagement
No one standard for that
How do we ensure that our measures are adaptable and meaningful and relevant?
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Behaviour as learning?
manipulation - v- understanding
Objectivity of analysis?
Freedom and transparency?

Mireille Hildebrandt: Learning as a machine - LAK16 Keynote
https://youtu.be/dwv0tjpFGgg
"Being aware of the legal and ethical implications of any activity requiring data collection is fundamental before undertaking any form of data analysis activity."

Cetis Analytics Series Volume 1: Analytics: What is changing and why does it matter?

Clarity
Comfort and care
Choice and consent
Consequence and complaint
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The DELICATE Checklist
to implement trusted Learning Analytics

**DETERMINATION** – Why you want to apply Learning Analytics?
- What is the added value (Organisational and data subjects)
- What are the rights of the data subjects (e.g., EU Directive 2016/679/EC)

**DEL**

**LEGITIMATE** – Why you are allowed to have the data?
- Which data sources you have already (aren’t they enough)
- Why are you allowed to collect additional data?

**L**

**INVOLVE** – Involve all stakeholders and the data subjects
- Be open about privacy concerns (of data subjects)
- Provide access to the personal data collected (about the data subjects)

Delicate Issues

http://www.slideshare.net/Drachsler/delicate-checklist-to-establish-trusted-learning-analytics

http://www.laceproject.eu/blog/lace-released-the-delicate-checklist-at-lak16/
Who is doing what?
Purdue University, Indiana, United States
Identifies potential problems as early as the second week of term.
Users seek help earlier and more frequently.
Led to 12% more B and C grades, 14% fewer D and F grades.

University of Maryland, United States
Students who obtain low grades use the VLE 40% less than those with C grades or higher.
Used to identify effective teaching strategies which could be deployed on other modules.

https://www.jisc.ac.uk/reports/learning-analytics-in-higher-education
Nottingham Trent University, UK
Strong link with retention - less than a quarter of students with a low average engagement progressed to the second year, whereas over 90% of students with good or high average engagement did so.

Strong link with achievement - 81% of students with a high average engagement graduated with a 2:1 or first class degree, compared to only 42% of students with low average engagement.

27% of students reported changing their behaviour after using the system.

Received a positive reception among students and staff.

One third of tutors contacted students as a result of viewing their engagement data in the Dashboard.

Open University, UK
Analytics used to:

» inform strategic priorities to continually enhance the student experience, retention and progression

» drive interventions at student, module and qualification levels

University of New England, Australia
Learning analytics is part of a wider ecosystem of engagement with students via social media to foster a sense of community amongst students who may be studying part time or at a distance as well as on campus.

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Jisc Discovery projects:

GCU final report and recommendations:
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http://www.slideshare.net/markstubbs/data-warehouse-tube-map-update

Data Warehouse Lines of Enquiry

- Student: Partial coverage
- R & A: Opening 2015
- Engagement: Opening 2015
- Curriculum Hierarchy: Units opening soon
- Staff: Opening 2016
- Timetable: Opening 2015
- Surveys: Partial coverage
- Learning Resources: Opening 2015
- Assessment: Good coverage
- Staff Development: Opening 2016

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Situation at GCU
Looked to others and great analogy with Glasgow subways

Been trying to move things forward
Tech - we have, oracle bi suite, we have a bi analyst Ken Fraser we have data
But . . . People problem in sharing
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http://edshare.gcu.ac.uk/1073/

Pillars of Readiness

- culture
- process
- people
- technology

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https://www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

Clarity = Responsibility
Comfort and care = Transparency and consent
Choice and consent = Privacy and Access
Consequence and complaint = Validity, Minimising adverse impacts

Enabling positive interventions. Stewardship of data

Data protection, n
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impulse arrested spills over, and the flood is feeling, the flood is passion, the flood is even madness

brave new world?
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