Ethical and practical considerations for students using learning analytics data

Dr Ainsley Hainey
What is learning analytics?

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George Siemens, LAK 2011
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Data Levels

MACRO CORPORATE LEVEL
- DATA SOURCES: include student record system/SIMS, SEES, NSS, DLHE
- USED FOR: HESA return, statutory SFC returns, SFC Outcome Agreements, TEF, internal strategy such as application tracking and student projections

MESO COURSE/MODULE LEVEL
- DATA SOURCES: include assignment grades, exam attendance, exam grades, number of exemptions, module evaluations, NSS DLHE, Undergraduate and Induction Surveys
- USED FOR: course/module review after the cohort has completed

MICRO INDIVIDUAL STUDENT LEVEL
- POSSIBLE DATA SOURCES: VLE, App, Library, Attendance, student record system/SIMS, assignment submission (paper based), assignment grade, Student Support Services, Career Service
- COULD BE USED FOR: responsive interventions for current cohort/individual student
Stakeholders

- Students
- Academic Staff
- Professional Services
- Student Support Services
- Student Associations/Class Reps?
University Strategy
Benefits of Learning Analytics

• Data-driven evidence-informed decision making
• Predicting ‘at-risk’ students or those more likely to drop out – improve retention
• Personalisation of the learning journey
• Course design/review
• Intervention strategies
• Assessment and feedback strategies
Case Study 1: NTU

• The key strategic driver is enhancing the academic experience for its 28,000 students, particularly their engagement with their course.

• Three more detailed goals were developed from this initial aim:
  – to enhance retention
  – to increase a sense of belonging within the course community, particularly with tutors
  – to improve attainment
NTU Dashboard

Figure 1: Student Dashboard, staff log in view
Case Study 2: OU

- Due to funding regime changes, retention of students on qualifications (rather than individual modules) has become a strategic issue for the university, and the implementation of learning analytics is one response to this challenge.

- [https://analyse.kmi.open.ac.uk/](https://analyse.kmi.open.ac.uk/)
Challenges of Learning Analytics

• Ethics and privacy
  – Data ownership
  – Communications around the scope and role of learning analytics
  – The necessary role of human feedback and error-correction
  – Data sharing between systems, organisations, and stakeholders
  – Trust in institution

• Do Universities have an obligation to act?
Workshop Background

• Student Unions/Associations are under-represented in learning analytics literature and research.

• The DELICATE checklist contains eight action points that should be considered by managers/decision makers planning the implementation of learning analytics solutions either for their own institution or with an external provider.

• Developed by Hendrick Drachsler & Wolfgang Greller as part of the LACE project. [http://www.laceproject.eu/](http://www.laceproject.eu/)
DELCATE Checklist

Determination: Decide on the purpose of learning analytics for your institution.
Explain: Define the scope of data collection and usage.
Legitimate: Explain how you operate within the legal frameworks, refer to the essential legislation.
Involve: Talk to stakeholders and give assurances about the data distribution and use.
Consent: Seek consent through clear consent questions.
Anonymise: De-identify individuals as much as possible.
Technical aspects: Monitor who has access to data, especially in areas with high staff turn-over.
External partners: Make sure externals provide highest data security standards.
Workshop Activity

• By the end of the session, you should develop your own DELICATE checklist for your own Students Union/Association.
D — E — L

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Final Thoughts

• Learning analytics overview.
• Benefits and challenges articulated.
• Opportunity to think about how learning analytics data can be used in students unions/associations.
• Completed DELICATE checklist is a starting point for discussions within your own institutions.
• Thank you for your participation!