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# 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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The What – Who – Why – How Approach

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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

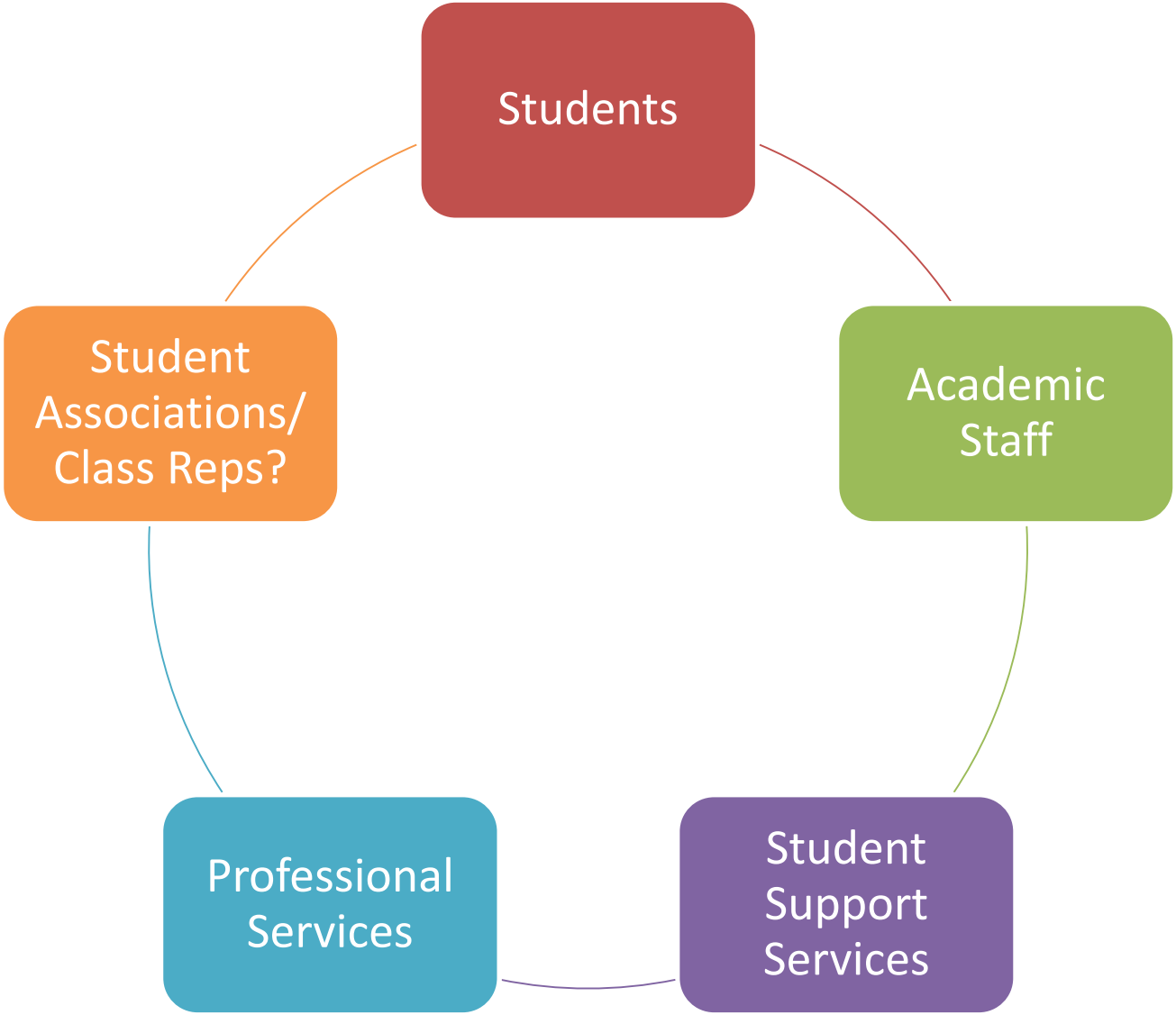
## MESO COURSE/MODULE LEVEL

- 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

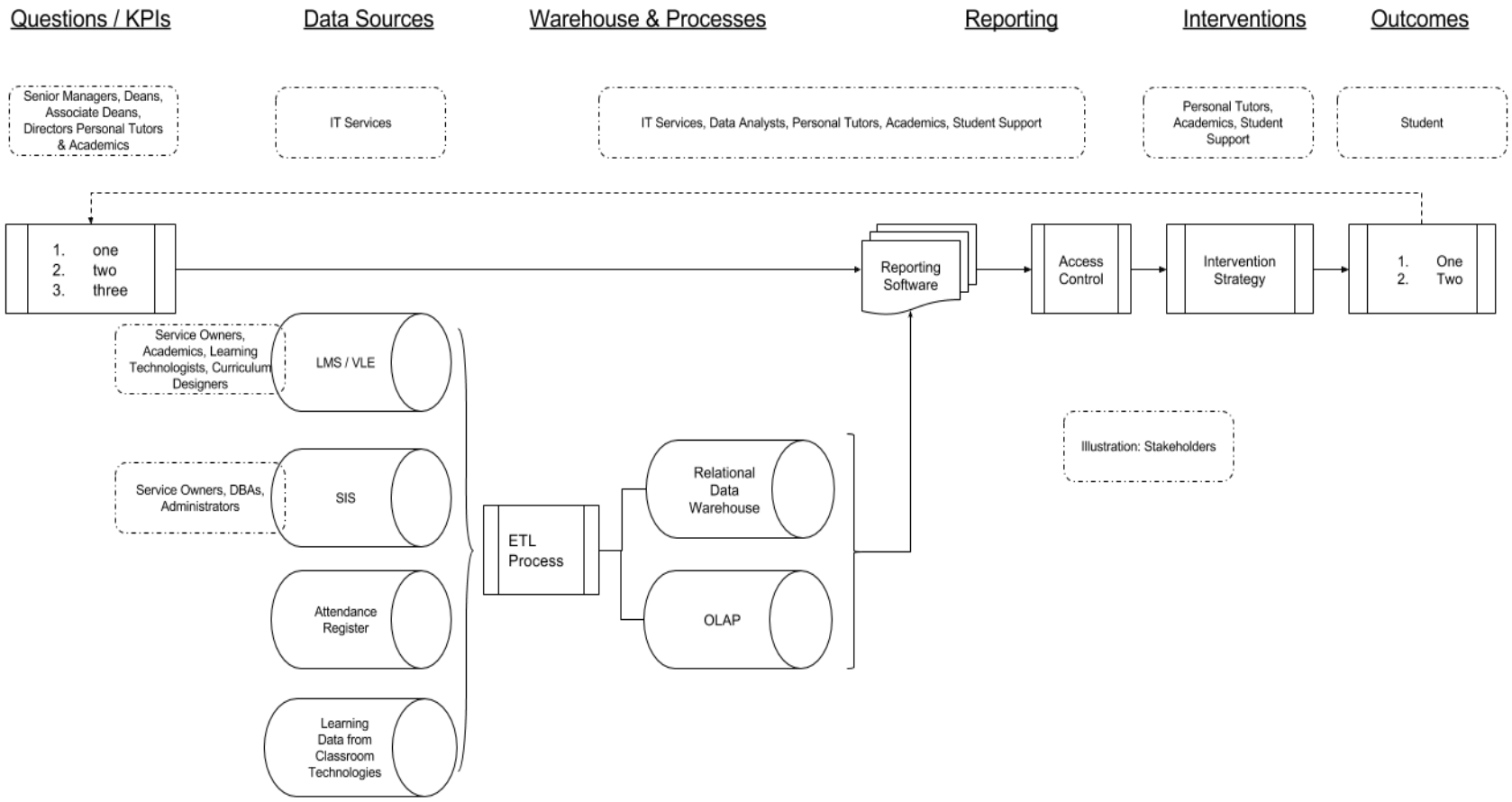
- POSSIBLE DATA SOURCES: VLE, App, Library, Attendance, student record system/SIMS, assignment submission (paper based), assignment grade, Student Support Services, Career Service
- COULD BE USED FOR: responsive interventions for current cohort/individual student

# Stakeholders



# University Strategy

# Learning Analytics Visualisation




Taken from Learning Analytics Readiness Assessment

# 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

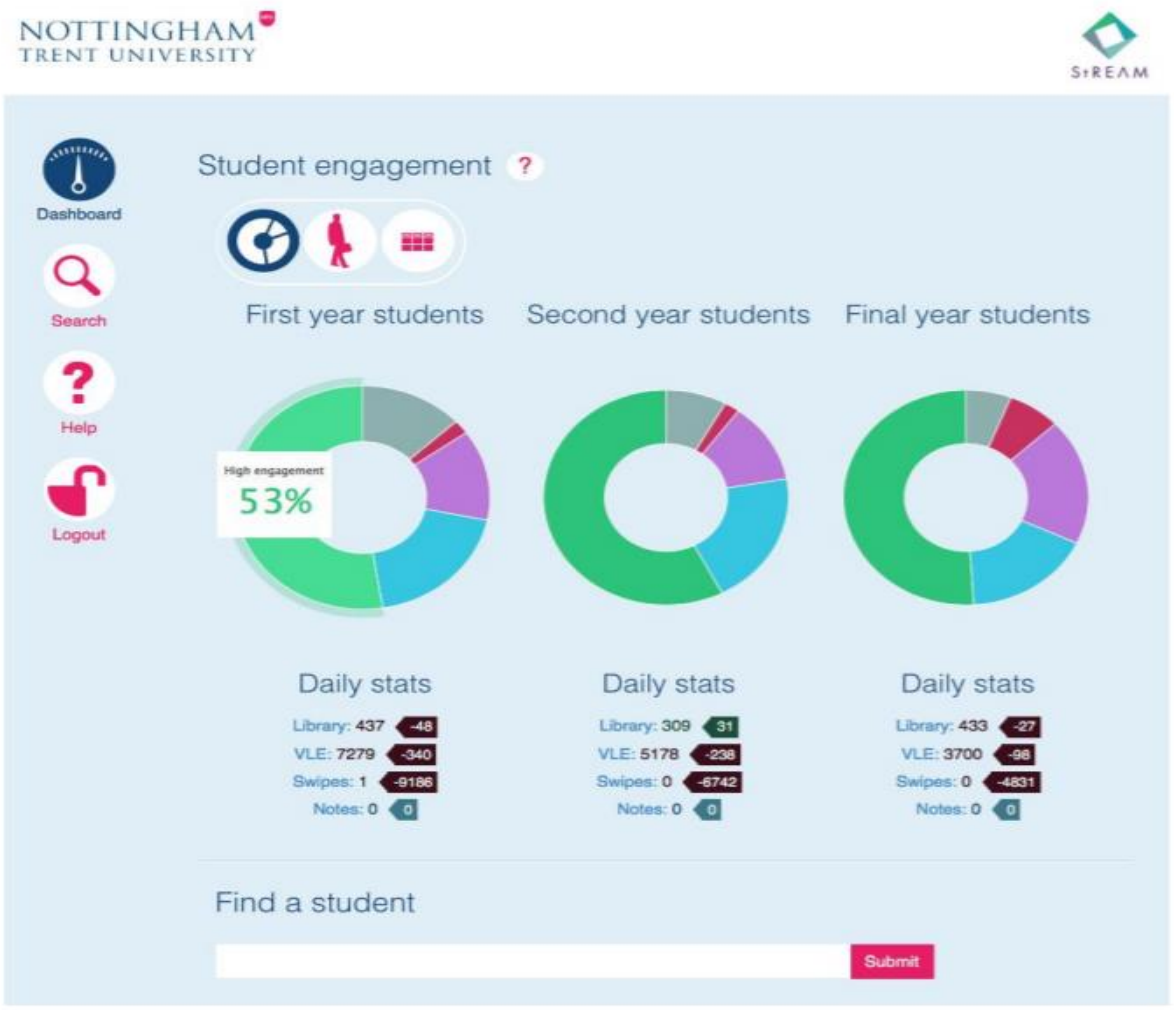



Figure 1: Student Dashboard, staff log in view

# 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/

# Challenges of Learning Analytics

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- 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/

# DELICATE Checklist

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**D**etermination: Decide on the purpose of learning analytics for your institution.
**E**xplain: Define the scope of data collection and usage.
**L**egitimate: Explain how you operate within the legal frameworks, refer to the essential legislation.
**I**nvolve: Talk to stakeholders and give assurances about the data distribution and use.
**C**onsent: Seek consent through clear consent questions.
**A**nonymise: De-identify individuals as much as possible
**T**echnical aspects: Monitor who has access to data, especially in areas with high staff turn-over.
**E**xternal 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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# I – C – A

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# T – E

**T**echnical aspects: Monitor who has access to data, especially in areas with high staff turn-over.

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# Final Thoughts

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- 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!

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