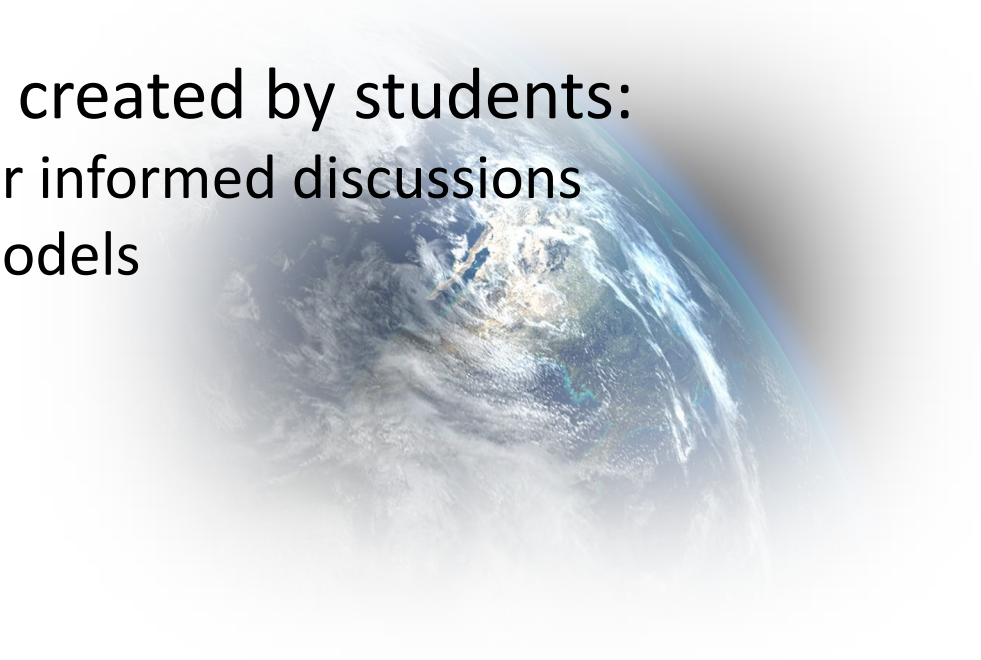
Jisc – UK Learning Analytics National Service

The aim of descriptive and predictive learning analytics

Paulette Makepeace, Analytics Service Manager

- The aim of descriptive and predictive learning analytics, including the staff and student involvement

- Using the digital footprints created by students:
  - Generate analytical tools for informed discussions
  - Build predictive analytics models
  - Identify patterns of success
  - Predict student outcomes



Presentation and Action
Data Storage and Analysis
Data Collection
Other Staff Dashboards
Staff Dashboards in Data Explorer
Student App: Study Goal
Jisc Learning Analytics Predictor
Learning Data Hub
Data Aggregator
UDD Transformation Process
Self Declared Data
Plugins and/or Universal xAPI Translator
Attendance
Student Records
VLE
Library

Descriptive learning analytics

Why ?

- Need
  - Student Experience
  - NSS and league tables
  - Clients demand
- Trending
- Student Charters
  - Informed 121 discussions
- Single dashboard
- Dynamic (daily feeds)
- Integration to other systems

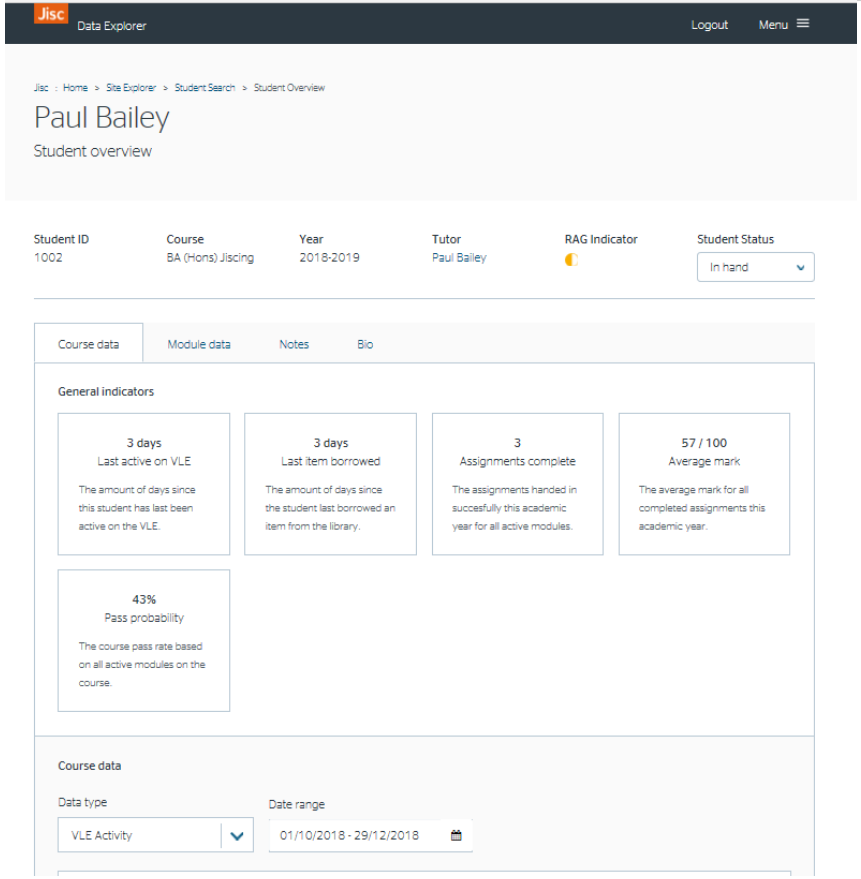
‘Learning analytics has the potential to transform the way we measure impact and outcomes in learning environments – enabling providers to develop new ways of achieving excellence in teaching and learning, and providing students with new information to make the best choices about their education’

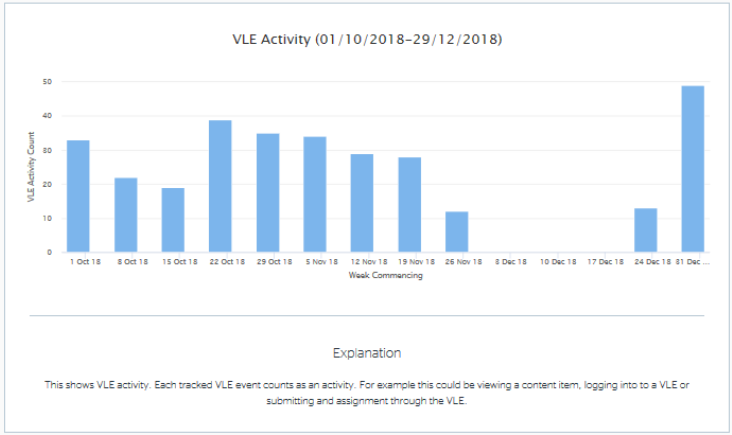
https://www.jisc.ac.uk/reports/learning-analytics-in-higher-education

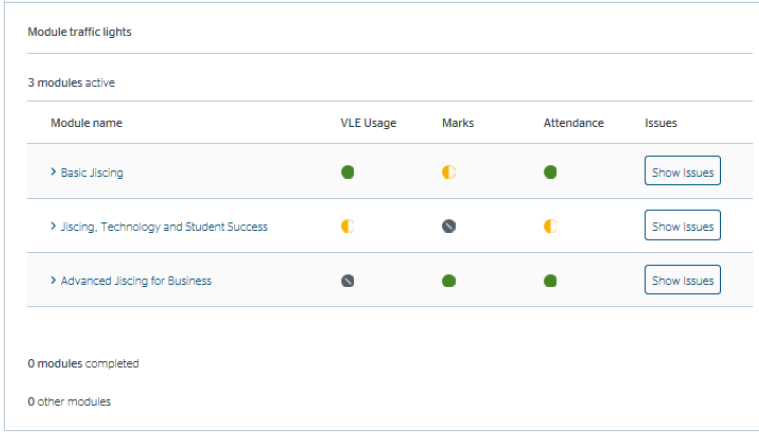
Descriptive learning analytics

- Multiple data sources
  - Increasing demand
- Single dashboard
  - Current data
  - Multiple views and overlays
    - Activity
    - Attainment
    - Attendance
- Traffic Light Calculator
  - Aggregated data
  - Comparison cohort average
  - Module and course rag rating

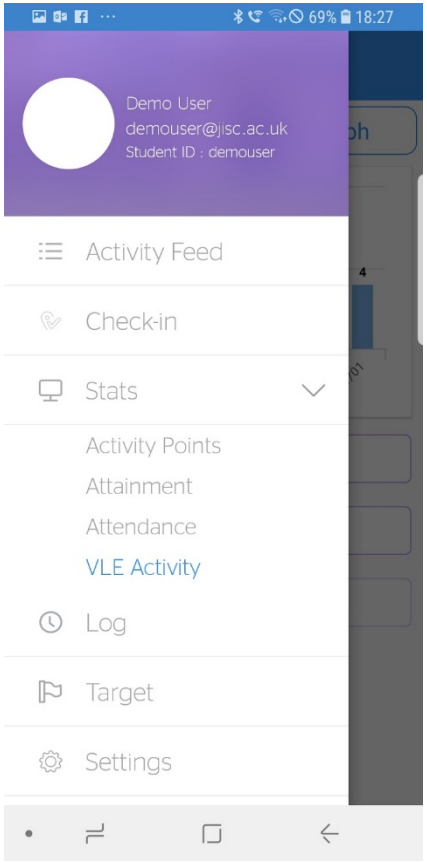
Descriptive learning analytics

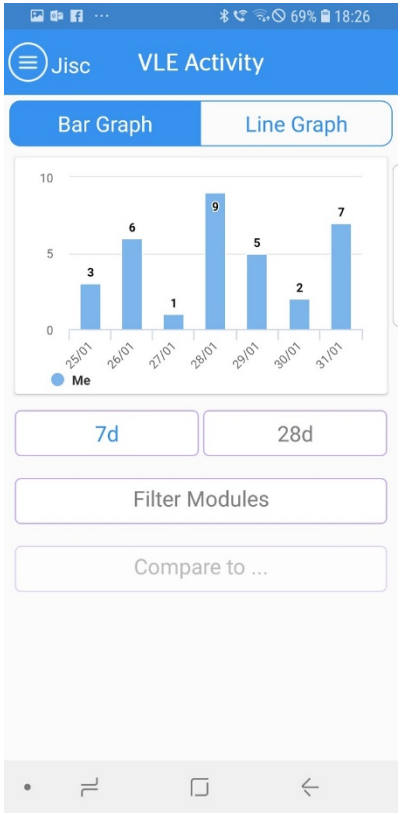


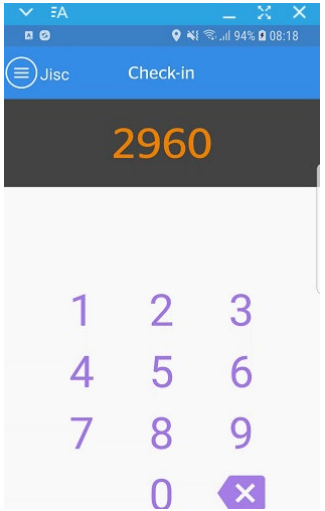




Descriptive learning analytics

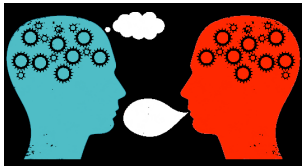






Staff usage

- Personal Academic Tutors – informed 121s
- Progression and Student Retention
- Student and Library Support
- Attendance monitoring
  - Electronic registers
- Learning and Teaching - Curriculum design
- Management Overview
  - Academic managers
  - Faculty/school/course performance
- Research



…we'll be taking all that we're getting from learning analytics and tying it into a much clearer understanding of how best to teach students. Modern techniques are changing – they're more student-driven and we'll be able to judge that using learning analytics.
Dr Christine Couper, University of Greenwich

Students

- Student Voice for co-design
- Consent/GDPR
- Using my data ?
- Institutions looking at impact 18/19

Student feedback on App

'Excellent App very useful in the build up to exams. Definitely helped to motivate me' Jamie H 30/7/18

'Makes me actually go to the lecture to be marked here and get my loan ' 14/11/18

Prescriptive learning analytics

'The aim of the 'predictor' is to predict if a student is likely to succeed or be at academic risk' (M Webb Nov 2018).

- Uses a machine learning approach:
  - Create a model by looking at historic data
  - Apply to live data.
    - Data about the course.
    - Data about the student's enrolment.
    - Data about the student.
    - Data about what the student does
- Test the models thoroughly against historical data from the institution.