



Harnessing the Potential of Learning Analytics in Teaching and Learning

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January 2017

National Forum for the Enhancement of Teaching and Learning in Higher Education



What is Learning Analytics?

- Using data to make informed decisions relating to learning
- Often involves combining and modelling data from disparate sources (eg Virtual Learning Environment, Student Information System, Library DatabaseB, web logs etc)
- Most commonly applied as predictive analytics which proactively identifies 'at-risk' students, based upon their digital footprint
- Enables identification and intervention 3-4 months earlier than traditional methods

Applications of Learning Analytics

- Early alert systems
- Personalised learning (Student Focused)
- Learning design (Module focused)
- Curriculum planning
- Strategic/budgetary planning (Goal Selection)

Learning Analytics in Ireland

- Sectoral awareness of Learning Analytics and intention to develop capabilities
- Has not yet become a part of everyday life for most institutions or students
- c. 25-30% of Institutions have developed platforms which enable analytics
- Expected that majority of Institutions will have some capability within 2-3 years

What Data do We Have?

- We hold in excess of 15,000 individual pieces of data on each student. Over 7,000 of these refer to online activity (Lee O'Farrell, HEAnet Paper, 2014)



| Category | Flag | Harry | Barry | Larry | Carrie |
|---------------------------|--|-------|-------|-------|--------|
| Workload | > Standard annual credits for the Programme & Stage | ✓ | X | ✓ | X |
| Engagement | <50% of peer average VLE hits | ✓ | ✓ | X | X |
| Library | <50% of peer average library use | ✓ | ✓ | ✓ | X |
| Performance | GPA < 2.0 | ✓ | X | ✓ | X |
| Compliance | Meets core/option rules? | ✓ | ✓ | X | X |
| Extenuating circumstances | Has the student applied for extenuating circumstances? | ✓ | ✓ | X | X |
| Fee Status | Is the student fee compliant? | ✓ | ✓ | X | ✓ |
| Flag Count | | 0 | 2 | 4 | 6 |

| Category | Flag | Carrie |
|---------------------------|--|---------------------------------------|
| Workload | > Standard annual credits for the Programme & Stage | 75 credits |
| Engagement | <50% of peer average VLE hits | 11 hits (average: 56 hits) |
| Library | <50% of peer average library use | 2 loans (average: 8 loans) |
| Performance | GPA < 2.0 | GPA: 1.1 |
| Compliance | Meets core/option rules? | Missing 2 cores |
| Extenuating circumstances | Has the student applied for extenuating circumstances? | Yes |
| Fee Status | Is the student fee compliant? | Yes |
| Flag Count | | 6 |

IAN (Integrated Assistance Nexus)

Project Background

- Pre-specified nationally coordinated NF project running from Sept 16 – June 17
- Arising from:
 - Digital Capacity Roadmap (NF)
 - Education & Training 2020 Strategy (EU)
 - New Modes of Learning and Teaching in Higher Education Report (EC, 2014)

Aims of the Project



Building Community – The Stack

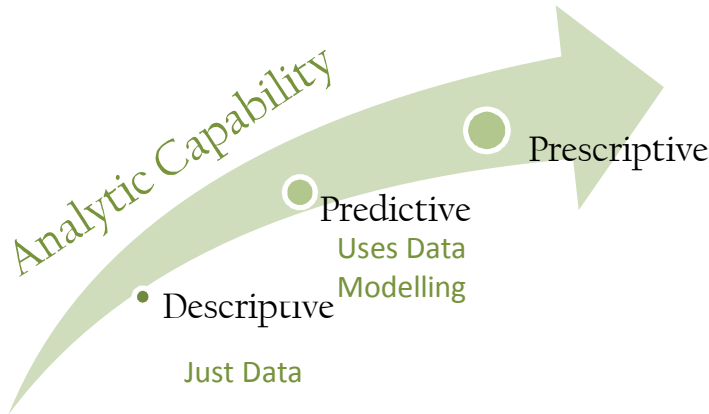


Building Community – Advisory Panels

- IT & Infrastructure
- Data Aggregation & Modelling
- Policy, Ethics & Law
- Teaching, Learning and Student Interventions



Building Capacity

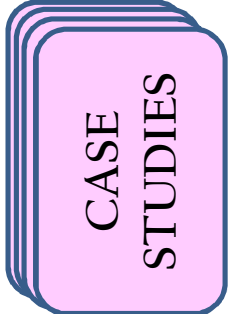
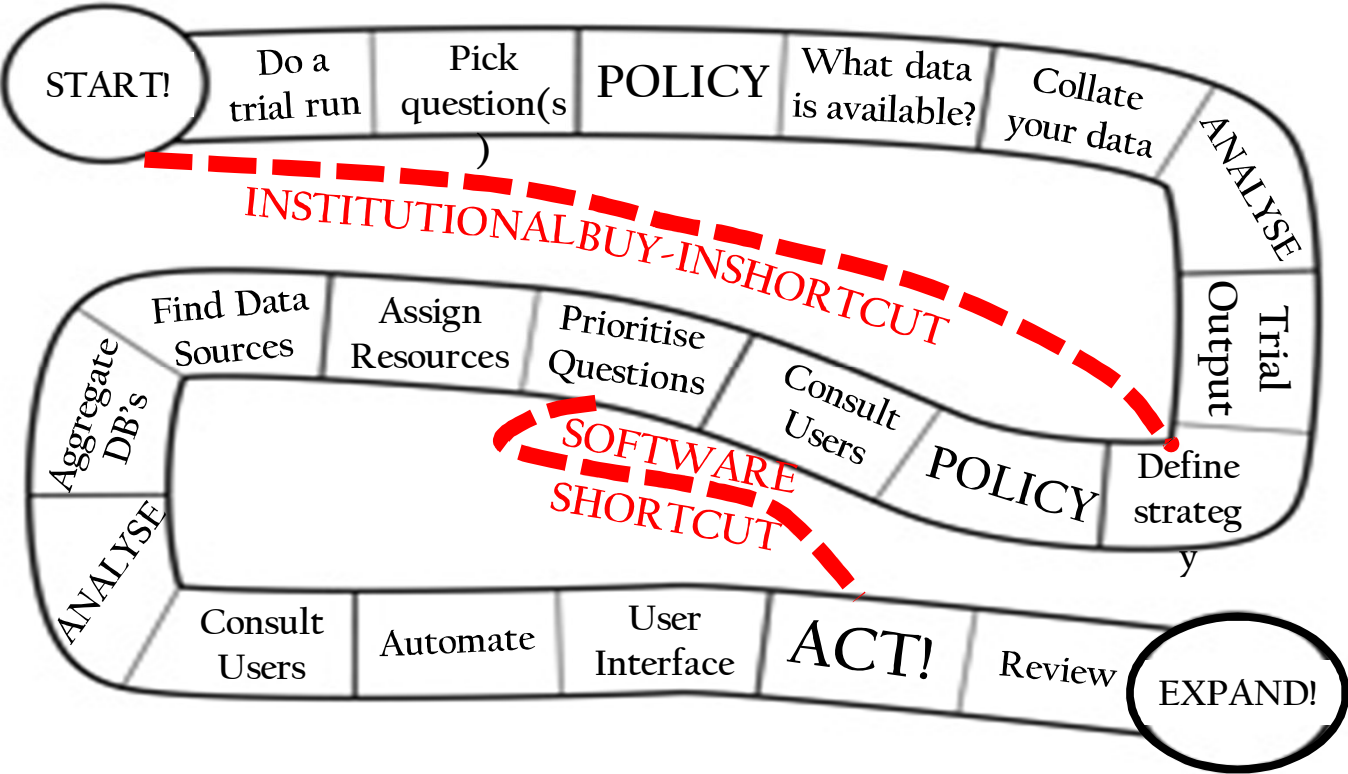


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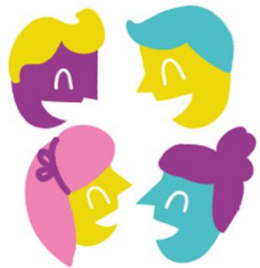
Icons made by madebyoliver, SimpleIcon, Freepik, Graphicsbay & Kirill Kazachek from www.flaticon.com

Building Capacity - ORLA



Irish Student Survey of Engagement

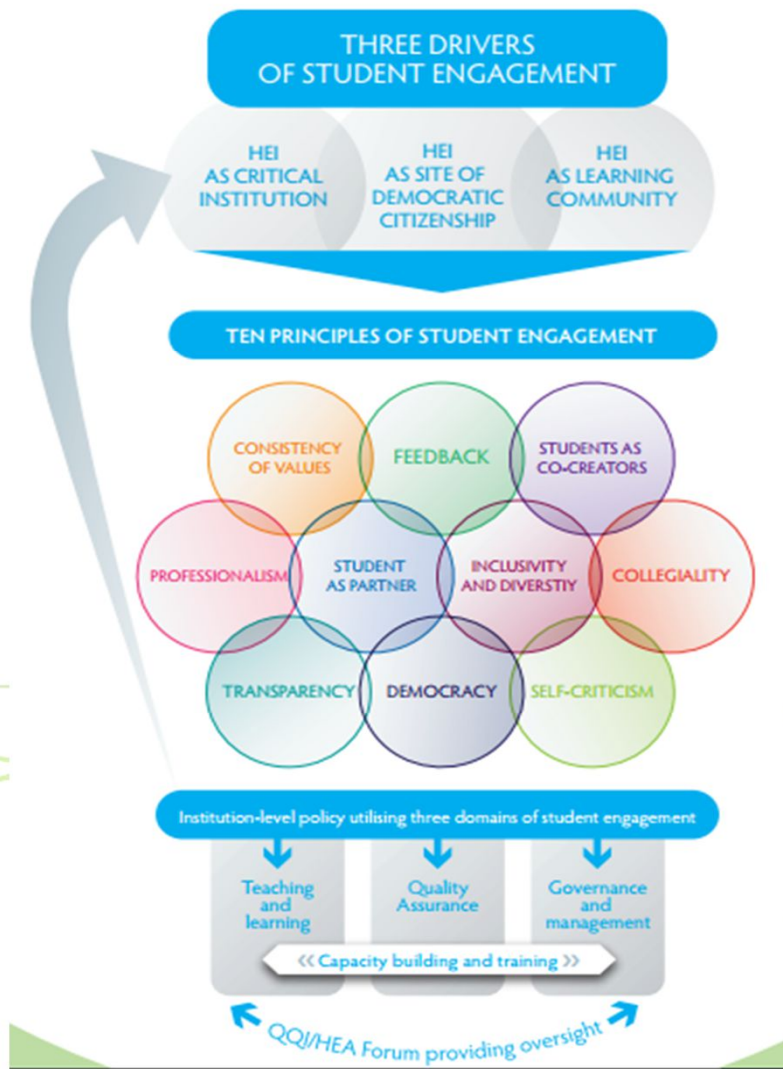
- 60,000 students participated in the original survey from 2013 to 2015
- More than 29,000 students responded to the revised (shortened) survey in 2016.



Some Insights

- Some Institutional Resistance to the survey initially
- No major differences between institutional types – Universities/Institutes of Technology
- More difference between academic units within institutions than between institutions
- Lack of expertise at an institutional level to mine the data
- Need to let students know that the institution is using the data to make positive change.





EMBEDDING THE PRINCIPLES OF STUDENT ENGAGEMENT

Higher Education Authority Student Engagement Working Group

http://www.heai.ie/sites/default/files/enhancing_student_engagement_in_decision_making_1.pdf
http://www.heai.ie/sites/default/files/principles_student_engagement_insert_final_web_version_0.pdf





National Student Engagement Programme

Clár Rannpháirtíochta Náisiúnta
na Mac Léinn

<http://usi.ie/nstep/>

Pilot programme with 3 partners:

- Union of Students in Ireland (USI)
- Higher Education Authority (HEA)
- Quality and Qualifications Ireland (QQI).



The National Student Engagement Programme Pilot

- A National Student Training Programme
 - Working with pilot institutions to develop the materials, processes and support requirements to deliver a common student representative training programme
- Developing Institutional Capacity
 - Working with pilot institutions to help them assess their current student engagement activities and to identify areas for enhancement towards improved practice



Thank You

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