NTU Student Dashboard
• 28,000 Students
• > 45% Widening Participation Background
• > 93% Employability
• < 5% Drop-out Rate
Our Starting Point...

- Three Drivers:
  - HERE Project (part of “What Works?” Student Retention & Success, 2008-2012)
  - IS analytics innovation and experimentation
  - Internal audit: good at retention, could use data more to better inform interventions
NTU Dashboard - Context

Existing Rich Information:
• Business Intelligence Tools
• Refined Data Warehouse
• One Version of the Truth

Dashboard:
- Simple Tools
- New Insights
- Right Technology Partner

Excellent Student Support:
• Welcome Week
• Robust Tutor System
• Support One-stop Shop
• Etc...

Desired Outcomes:
• Attainment
• Belonging
• Retention
Dashboard Outcomes

- Attainment
  - Students as Agents
  - Quantified Self
  - Feedback
  - Academic Tool

- Belonging
  - Relationship Building
  - Reduce Barriers
  - Tutors Notes and Planning

- Student Retention
  - Encourages Virtuous Behaviour
  - Early Warnings
  - Support Information
Timeline

• Experiments/Proof of Concept (2012-13) – 3 months

• Pilot Programme (2013-14)
  – 4 first year courses, 22 staff, 400 students
  – Understand how staff & students use it
  – Explore reactions to using the dashboard
  – Test methodology – does it work?

• Full Implementation (Start 2014-15)
  – By Spring 2014, it was felt that there was sufficient benefit to consider full implementation, further evaluation conducted in Nov 2014 – Jan 2015
  – Implemented in all 9 Schools
  – Undergraduate & Postgraduate
The Dashboard
What does the dashboard do?

Student Biographical Information

Tutor Comments

Staff View

Student View

NTU Student Dashboard

Compares and Rates Engagement across Cohort

Combined Engagement Measure
• Door swipes
• Library Loans
• VLE Use
• Dropbox Submissions
• Attendance

Raises Alerts!!
<table>
<thead>
<tr>
<th>Student ID</th>
<th>Course Year</th>
<th>Gender</th>
<th>Tutor Name</th>
<th>Entry Age</th>
<th>Enrolment Status</th>
<th>Repeating</th>
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<tbody>
<tr>
<td>NMS219950</td>
<td>1</td>
<td>M</td>
<td>Not known</td>
<td>32</td>
<td>Fully enrolled</td>
<td>Not Repeating</td>
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<td></td>
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<tr>
<td>Disability Access Stmt</td>
<td>Engagement Rating</td>
<td>UCAS Tariff</td>
<td>Study Mode</td>
<td>NTU Email</td>
<td>Home Email</td>
<td>Mobile</td>
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<tr>
<td>No</td>
<td>[ ] high</td>
<td>0</td>
<td>Full-Time</td>
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### Entry Qualifications

<table>
<thead>
<tr>
<th>Year of Award</th>
<th>Qualification</th>
<th>Subject</th>
<th>Grade</th>
<th>Tariff Value</th>
<th>Tariff Value Ranking</th>
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<tr>
<td>2013</td>
<td>Advanced Subs</td>
<td>Sociology</td>
<td>B</td>
<td>50</td>
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<tr>
<td>2013</td>
<td>Advanced Subs</td>
<td>Physical Education</td>
<td>C</td>
<td>40</td>
<td>4</td>
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<tr>
<td>2013</td>
<td>Advanced Subs</td>
<td>Economics</td>
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<td>60</td>
<td>4</td>
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<tr>
<td>2013</td>
<td>Advanced Subs</td>
<td>Business Studies</td>
<td>B</td>
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<tr>
<td>2014</td>
<td>GCE A Level</td>
<td>Sociology</td>
<td>B</td>
<td>100</td>
<td>3</td>
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<tr>
<td>2014</td>
<td>GCE A Level</td>
<td>Economics</td>
<td>B</td>
<td>100</td>
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<tr>
<td>2014</td>
<td>GCE A Level</td>
<td>Business Studies</td>
<td>B</td>
<td>100</td>
<td>1</td>
</tr>
</tbody>
</table>
Student Engagement Rating - Cumulative

Individual Engagement Rating - Cumulative
Calculated from multiple sources including NOW, attendance, library use & building access

Course Average
Engagement Rating
Student Engagement Rating – week-week

Individual Engagement Rating - Relative
Calculated from multiple sources including NOW, attendance, library use & building access

Individual Engagement Rating - 14 Day View

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td>Good</td>
<td>Good</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
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</table>
Engagement Measured via Student Behaviour

<table>
<thead>
<tr>
<th>Tutorials Attendance History</th>
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<tbody>
<tr>
<td>NOW Resource Usage</td>
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<tr>
<td>NOW Dropbox Submissions</td>
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<tr>
<td>Library Loans</td>
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<td>Campus Swipes</td>
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</table>

### Academic History

<table>
<thead>
<tr>
<th>Module</th>
<th>Level</th>
<th>Module Leader</th>
<th>Module Type</th>
<th>Grade Desc</th>
<th>Grade</th>
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<tr>
<td>Research Methods 1</td>
<td>Undergraduate Level 1 Module</td>
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<td>Teaching</td>
<td>Not Known</td>
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<tr>
<td>Research Methods 1</td>
<td>Undergraduate Level 1 Module</td>
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<td>Coursework</td>
<td>Not Known</td>
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<tr>
<td>Psychological Research in Context</td>
<td>Undergraduate Level 1 Module</td>
<td>TBC</td>
<td>Teaching</td>
<td>Not Known</td>
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<tr>
<td>Psychological Research in Context</td>
<td>Undergraduate Level 1 Module</td>
<td>TBC</td>
<td>Oral Presentation</td>
<td>Not Known</td>
<td></td>
</tr>
</tbody>
</table>

Proportionate use of Existing Data
Regular Contact / Meeting Notes
Notes may be made by the personal tutor, other lecturers, course administrators, academic librarians, study support etc

Set email reminder for next week  Save

Notes History

<table>
<thead>
<tr>
<th>Note</th>
<th>Date</th>
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<tbody>
<tr>
<td>No notes yet</td>
<td></td>
</tr>
</tbody>
</table>

Academic Support  Student Support
Patterns of Student Withdrawal

1st Yr Arts & Humanities  1st Yr Social Sciences  1st Yr Art & Design
Arranged to see [student] as attendance was poor. We had an open and honest discussion about this and I explained the relationship between attendance and success! We talked about the barriers to his attendance, which related to too many late nights! Will meet again to review his attendance.

Tutor Notes
[student] has not attended my lectures for a few weeks. Emailed him to ask him to attend a one to one tutorial.
Impact
Pilot Courses Outcomes

- **Student feedback**
  - Recognise Benefits
  - 93% Wanted to be Warned of Risk of Failure
  - Feel Strongly Positive about the Dashboard
  - But Have Concerns of Abuse
    - “Will this be used against me if I fail?” and some unease about the range of people with access

- **Staff feedback**
  - Strongly Positive
  - Can see how they can use it in own practice
  - Valuable to Understand what Happened to Students, Plenty of Examples of Driving up Engagement
  - Time Spent Considerably less than 30 Minutes per Week
### Students progressing to second year of study by capped pre-entry A Level tariff and engagement rating

<table>
<thead>
<tr>
<th>Engagement Rating</th>
<th>0-220 points</th>
<th>221-240 points</th>
<th>&gt;240 points</th>
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<tbody>
<tr>
<td>low</td>
<td>23.7%</td>
<td>34.7%</td>
<td>40.9%</td>
</tr>
<tr>
<td>satisfactory</td>
<td>82.9%</td>
<td>87.4%</td>
<td>92.6%</td>
</tr>
<tr>
<td>good</td>
<td>95.4%</td>
<td>95.6%</td>
<td>95.3%</td>
</tr>
<tr>
<td>high</td>
<td>89.8%</td>
<td>95.7%</td>
<td>94.1%</td>
</tr>
</tbody>
</table>
Students progressing to next year of study by WP status and engagement rating

<table>
<thead>
<tr>
<th>Engagement Rating</th>
<th>WP (n=2,780)</th>
<th>Not WP (n=7,643)</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>25.4%</td>
<td>39.9%</td>
</tr>
<tr>
<td>satisfactory</td>
<td>82.5%</td>
<td>89.8%</td>
</tr>
<tr>
<td>good</td>
<td>92.6%</td>
<td>96.0%</td>
</tr>
<tr>
<td>high</td>
<td>94.3%</td>
<td>96.3%</td>
</tr>
</tbody>
</table>
Overall Impact

• Engagement is the Strongest Predictor of Progression
• Very closely tied with Entry Qualifications for Predictor of Final Degree Attainment
• Groups with Historically Poorer Progression and Attainment have Different Engagement
• For these Groups Engagement is a Stronger Predictor than Demographics
Other Benefits Along the Way...

- Single Source of Data for Tutors and Students
- Valuable Research Data for Improving Learning and Teaching
- Sharing of Good Practice
- Rich Data for Supporting Students from Priority Backgrounds
- Management Information and Strategic Planning
- More joined up Academic and Student Support
Going Forward

• Dashboard Methodology Works
  – Continual Improvement
    • Attendance and Access to Electronic Resources
    • Further UI Developments

• Institutional processes
  – Making Time for Interventions and Developing the Personal Tutor
    • Sharing Good Practice
  – Connecting the Right People to Students at the Right Time
  – Not Duplicating Existing Systems

• Impacting upon Student Behaviours
  – Crucial - need to work on ‘what do I do now?’
    • Some evidence that the most engaged students compete against one another, but how do we get less engaged students to engage?

• Risk of Shifting Blame
  – Does this pathologise student behaviour/ create a ‘new’ deficit model?
  – What is our responsibility for creating more engaging learning experiences?
Thank You – Questions?