



2014
THE AWARDS
AWARD WINNER

OUTSTANDING SUPPORT
FOR STUDENTS

What have we learnt from implementing learning analytics at NTU?

Ed Foster, Student Engagement Manager

NTU

Two questions

- Please say hello to the person next to you and discuss with them:
- Why are you interested in learning analytics?
- How exactly will having learning analytics actually achieve this goal?



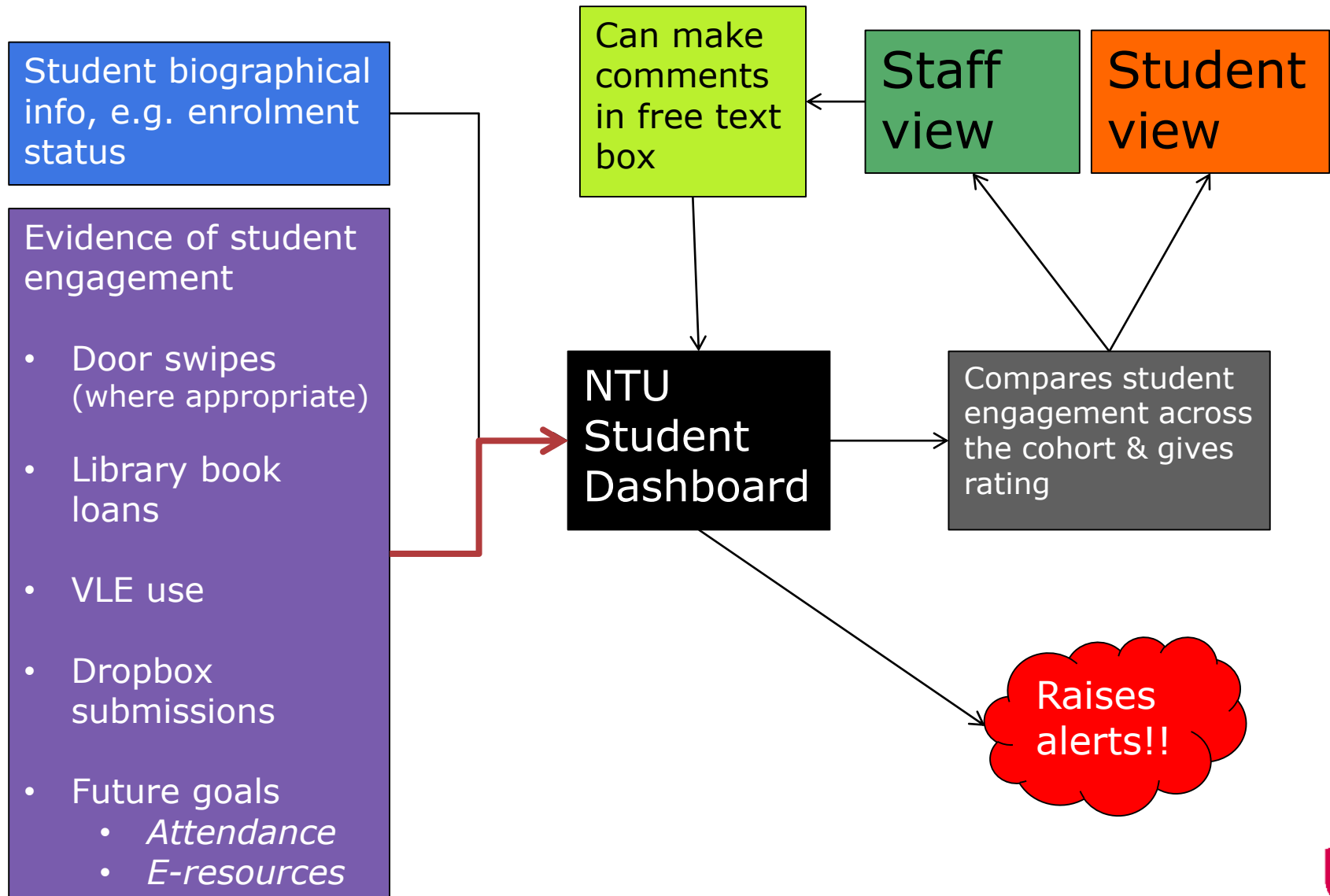
Why were we interested in learning analytics?

What did we set out to achieve?

Goal	Individual learner
• Improve retention	Early warning alerts Enable students to benchmark own engagement
• Improve sense of belonging/engagement	Notes facility to agree action plans, record meetings Tool for interaction between tutor & student
• Improve attainment	Benchmark engagement & see positive behaviours Students can see own grades and feedback

- Data for analysis by cohort
- Improving University systems
- Character references & other potential data sharing

What does the dashboard do?



Dashboard

Course Year 1

Course Year 2

Course Year 3

Course Year 4+

Student Search

Academic Help

Student Support

Technical Support

FAQ

Core Operational Hours

Monday to Friday

08:00 to 18:00

(some disruption may occur
outside of these hours)

Home / Dashboard

Engagement rating - first year students



High



Good



Satisfactory



Low



Weekly Stats

Swipes: **17286**Library: **2190**NOW: **44523**

Engagement rating - second year and above



High



Good



Satisfactory



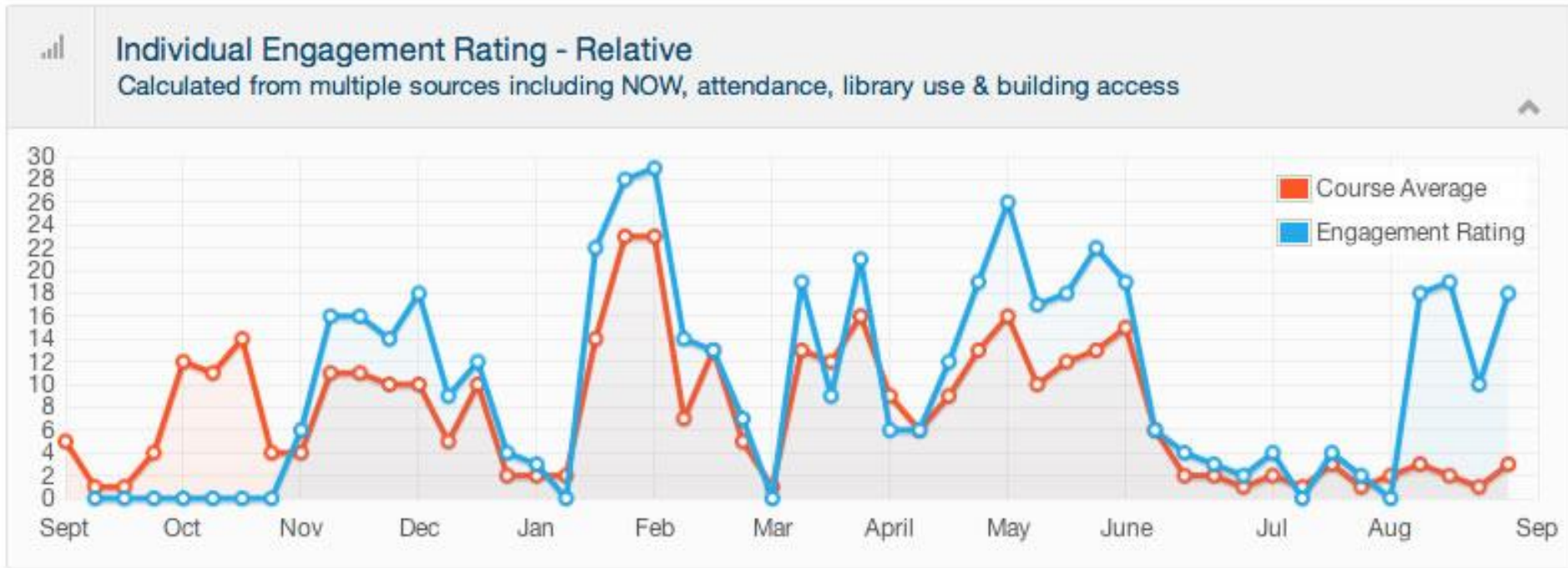
Low



Weekly Stats

Swipes: **31728**Library: **3931**NOW: **57240**

Student Engagement Rating – week-week

[illegible]

What have we achieved?

- We have a working Dashboard
- Following a successful pilot, it has been implemented across the whole University
- We are clear that the analytics works
 - First year students with a 'high' average engagement are 3 times more likely to progress to 2nd year than students with a 'low' average engagement
 - Final year students with 'high' average engagement are twice as likely to get a 'good' degree as those with a 'low' average engagement
 - Engagement is a far more important predictor of success than demographic data or entry qualifications
 - We only use engagement data in the Dashboard
 - There are still differentials between disadvantaged groups and their more affluent/ acculturated peers, but engagement significantly reduces the disparity
- Positive feedback from staff & students

Dashboard impact: Tutors

- Started to see changes to tutor behaviours
- In the pilot survey 80% felt that the data provided by the Dashboard changed how they worked with students.

[The Dashboard] “enabled me to **view a better profile** of the student and **target interaction** accordingly”

"It gives me a **quick picture** of my tutorial group, which will **help support** them, and track their progress."

“As I knew which **students** were **not engaging** with their course, I could **contact** them. It was **useful to have an email prompt** about what to do and information about how to contact the students.”

Dashboard Impact: Students

- 27% of students reported that they had changed their behaviour in response to the data provided by the Dashboard

"Increased my attendance and told someone if I will be late or not attending. Also more use of the library."

"Attending more lectures and seminars to increase my performance chart from satisfactory to high. "

"Accessed more material on NOW and using library more frequently"

"Become more engaged with the NOW so it shows high engagement rating, and so I'm higher than the class average."

Also seen competition between peers & Dashboard appearing in student culture

What about the bottom line?

- I don't think we have transformed retention, belonging & success.
- Yet.
- In the pilot year, when a tutor put a note in the dashboard, engagement typically rose for a student with low engagement over the next seven days
- However in the same pilot, it also fell for students who had high engagement
- In the pilot year, progression increased on two courses and on two it declined
 - On both courses with declining progression the course size had increased, on one by 1/3

Some of our key lessons

- It's a team game
- Philosophical opposition appears stronger amongst staff, not students
 - Although academics can see the benefits more readily as they appear to have terrible access to student data
- Whatever you've budgeted for communications, double it
- There are two products: the dashboard and the analytics
 - The quick wins are as much about the dashboard as they are about the analytics
- The miraculous quickly becomes the mundane
 - Trivial irritants become big problems
- This is disruptive technology
 - The dashboard highlights existing problems
 - Embedding/ competing/ duplicating





How exactly will having learning analytics actually achieve this goal?

Proper learning

- Learning analytics is only as useful as the actions it instigates

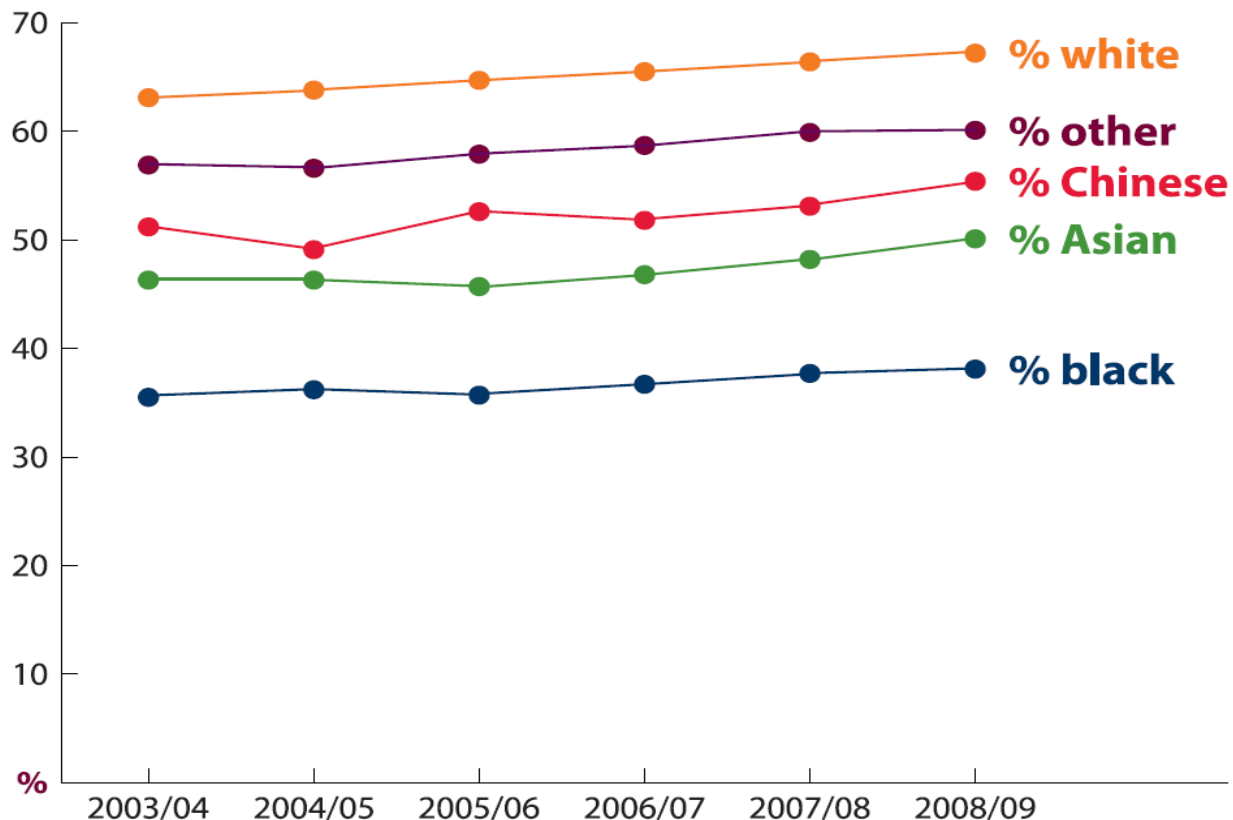


For the academic to jump into the bath tub, they need **time, training, motivation**, to have **easy access to data, a room** to talk to the student or **space** to email them.

Just knowing that they need to jump is only the first link in the chain

The sector already has enough data to act, but appears not to have done so

UK-domiciled first degree undergraduate qualifiers obtaining a first or upper second class honours degree by academic year and ethnicity



ECU
report
from
2010 -

evidence of
attainment gap
comfortably 10 years
old - 3 complete
generations of
University students

Previous studies into the impact of learning analytics show limited impact from giving University students data

- Arnold (2010)
 - Student responses to traffic light systems included dropping out early
- Jayaprakash et al (2014)
 - Attainment rose, but this appears to also be because students dropped out early in response to traffic light alerting
- Campbell, DeBlois & Oblinger (2007)
 - Describe quite hefty interventions

Next Steps for NTU



When complaints are freely heard, deeply considered and speedily reformed, then is the utmost bound of civil liberty attained that wise men look for – John Milton

Stuff we haven't considered yet

Integrating Dashboard into institutional working practices

Student communications

Further Dashboard developments: NECs, design, use of notes etc.

New data sources for the learning analytics model

IT infrastructure, management processes & quality

Conclusion

- We're delighted to have a fully functioning Dashboard
- We've seen some immediate benefits (primarily behavioural)
- However
- We've only begun to exploit the potential
- This is a learning & teaching/ student experience project – the IT is about instigating action, it is not the end result