



Learning Metrics, Learning Analytics
Using Data to Improve the Student Experience





Opening Plenary

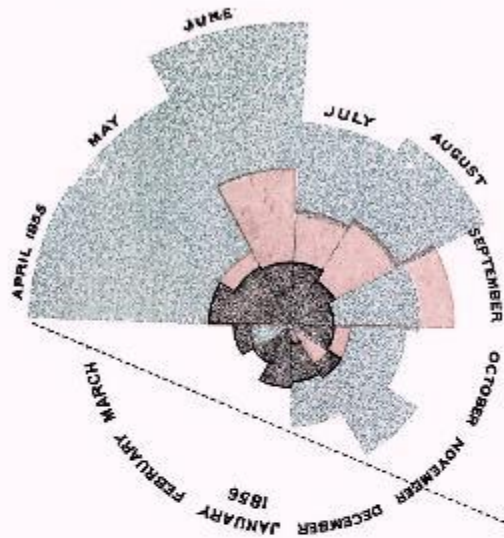
Jane McNeil, Dr Susannah Lamb, Ed Foster
Centre for Academic Development & Quality

11:00-12:00	Parallel sessions
12:00-12:55	Lunch
1:00-2:00	Keynote <i>The Perils and Potential of Data</i> Hetan Shah Executive Director, Royal Statistical Society
2:10-3:10	Parallel sessions
3:20-3:50	Participant demonstrations

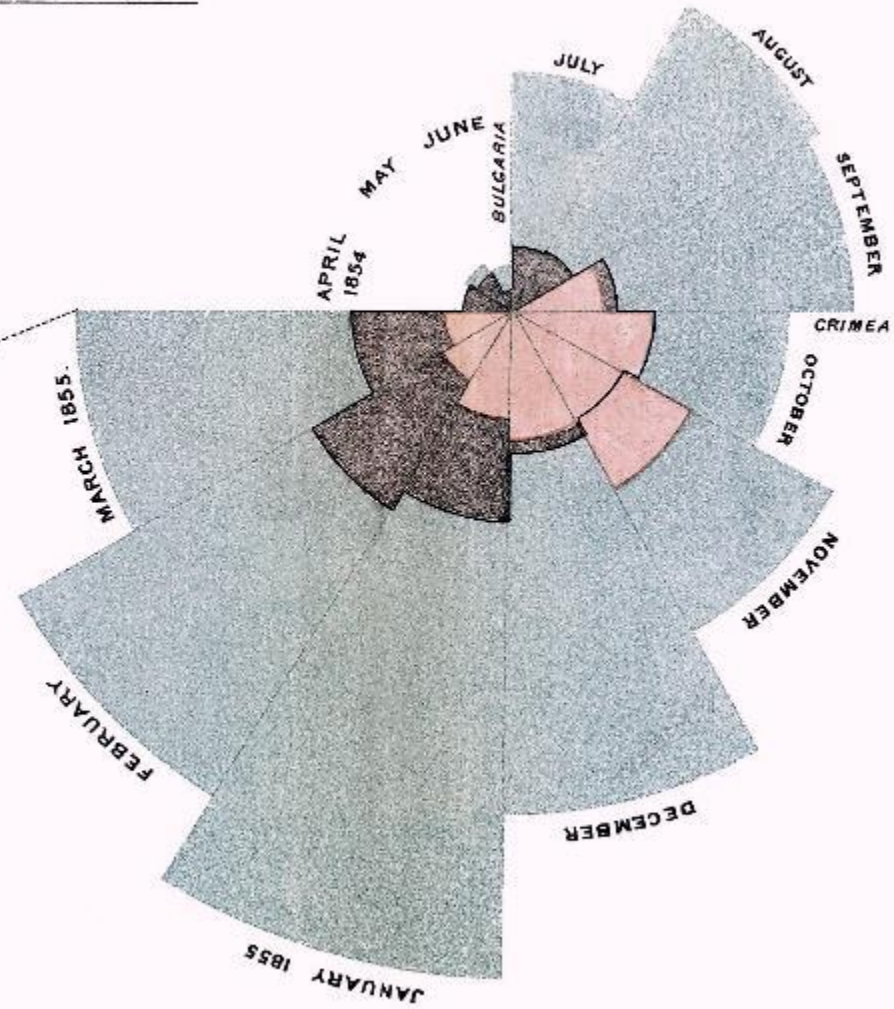


DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST.

2.
APRIL 1855 to MARCH 1856.



1.
APRIL 1854 to MARCH 1855.



The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.

The blue wedges measured from the centre of the circle represent area for area the deaths from Preventable or Mitigable Zymotic diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.

The black line across the red triangle in Nov^r 1854 marks the boundary of the deaths from all other causes during the month.

In October 1854, & April 1855, the black area coincides with the red, in January & February 1856, the blue coincides with the black.

The entire areas may be compared by following the blue, the red & the black lines enclosing them.

Learning metrics

Use of metrics to make decisions about the quality of learning opportunities.

Learning metrics are used as a quality management tool, but also to make comparisons about quality across the sector.

Learning analytics

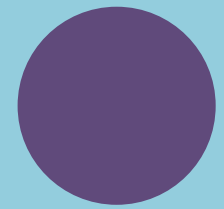
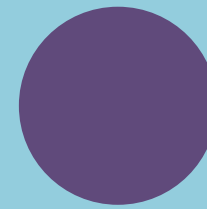
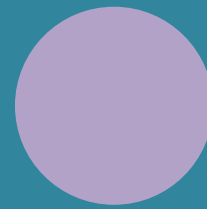
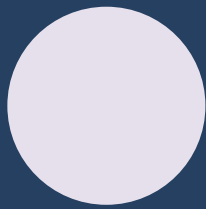
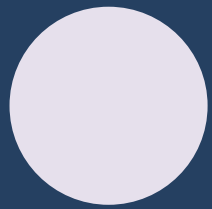
Use of (the same) data sets to develop an understanding of the likelihood of success for individuals or groups.

Learning analytics can be used to alert staff and students to the risks of a student dropping out early, or under-performing.

Intrapersonal/
Interpersonal

Organisational/
Managerial

Legislative/
Governmental



Students

Tutors, lecturers,
administrators,
professional
services

Local
management

Institutional
leadership

HE sector

Government

Authenticity and validity

Trust and communication

Action-oriented

What are the
challenges of achieving
authenticity in the
context of educational
quality?

presage
product

What are the
challenges of achieving
authenticity in the
context of educational
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presage
process
product

Biggs, 1993

'If quality assurance pays attention to variables that do not influence quality and does not pay attention to variables that do influence quality then [QA processes] are unlikely to assure or improve quality.'

Gibbs, 2012, p.15

'How we choose to measure quality will end up defining what quality is.'

Ashwin, 2015



Dashboard



Search



Help



Logout

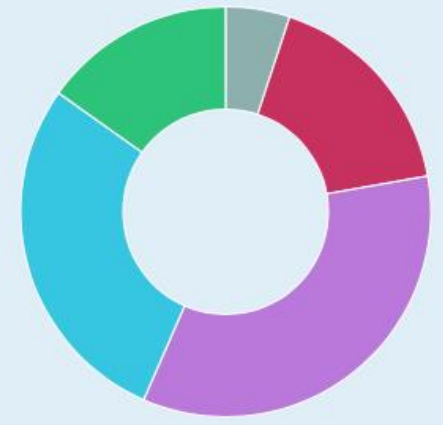
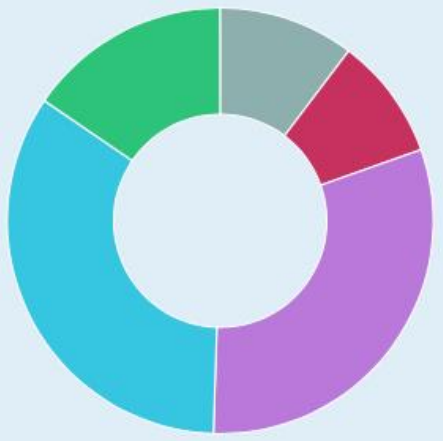
Student engagement ?



First year students

Second year students

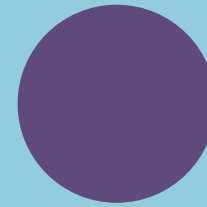
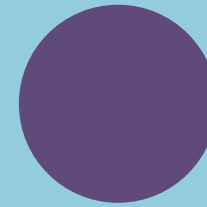
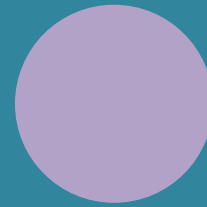
Final year students



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What are the **trust issues**
when we've already used to
trading privacy for
utility?

- Supermarkets
- Online retailers
- Smart phones
- Social networks
- Search engines

Not helped by unexpected trades

- UCAS (2013)
- Care.data

Trust issues

It's **creepy***,
inaccurate, or
there's really a **hidden**
agenda anyway

Student reactions
positive but brittle
Familiarity

Staff more
informed about
issues & see
more immediate
benefits

Familiarity & use
important

'Stalinist' hidden
agenda



At what point
does data use
become
unsettling?

Student assignment

- When assignment submitted electronically to the VLE?
- When individual grades are stored on a student records database?
- When grades are available for a module leader to read?
- When all grades are brought together into the learning analytics platform?
- When record of submission is used as part of the learning analytics algorithm?

Concerns about
**accuracy &
hidden
agendas**

Conflict between
self-perception/
experience & validity
of external data

Implied criticism

Student attendance
as gold standard

"... learning analytics are an expensive white elephant. Good practice for the continuously surveyed workplace though. We just need to keep moving the criteria – keep them guessing what 'performance' is this week"

Communications Paradox

Student Dashboard
intentionally transparent

Extensive communication to
students & staff

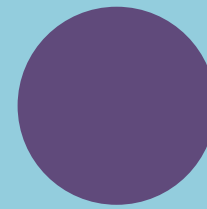
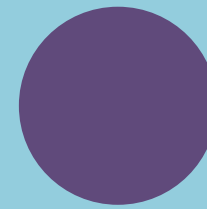
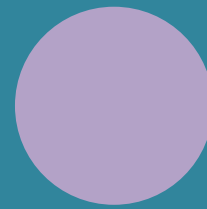
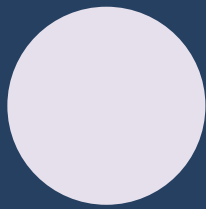
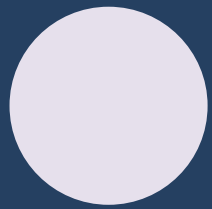
But never enough & more
sophisticated consent

However, just raising issues,
makes them issues

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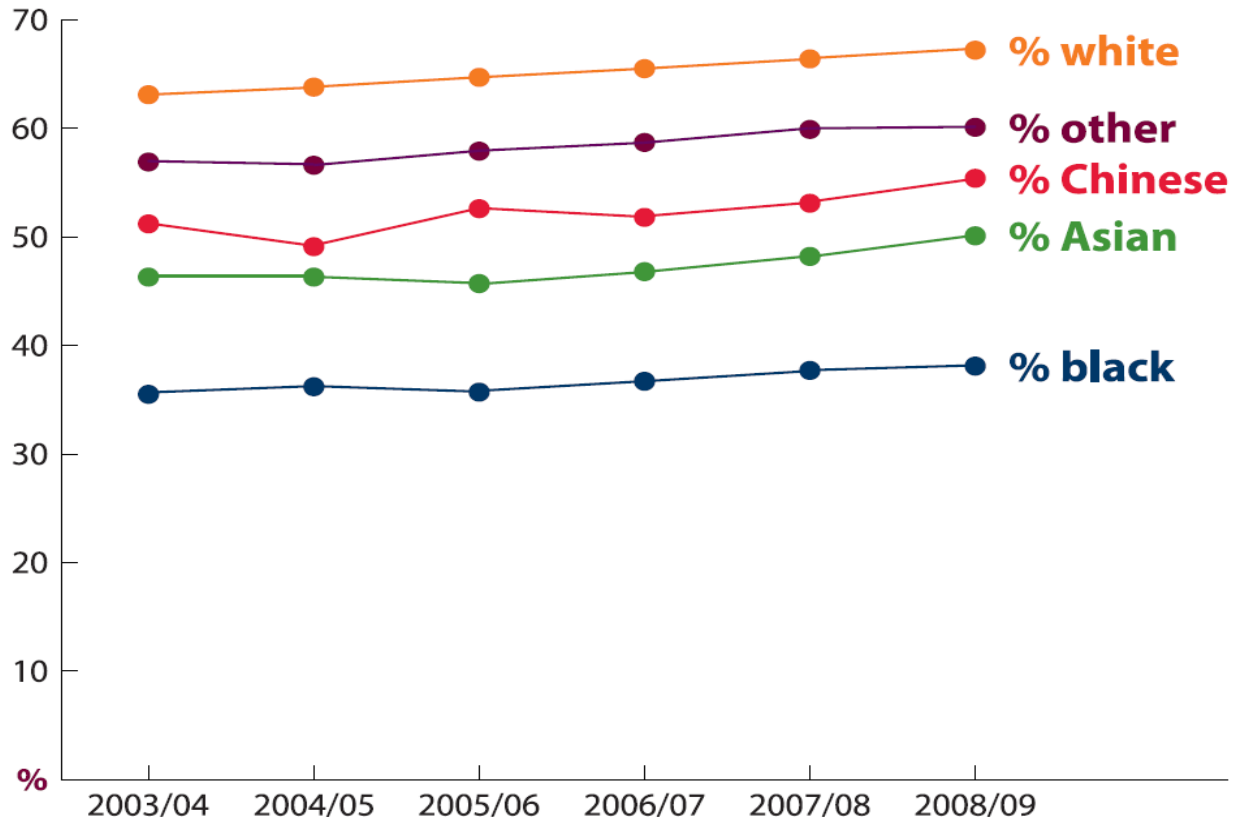
Trust and communication

Action-oriented

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

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



Data without
action is almost
pointless;
taking the right
action is difficult

GPs who prescribe
antibiotics

Generosity of markers

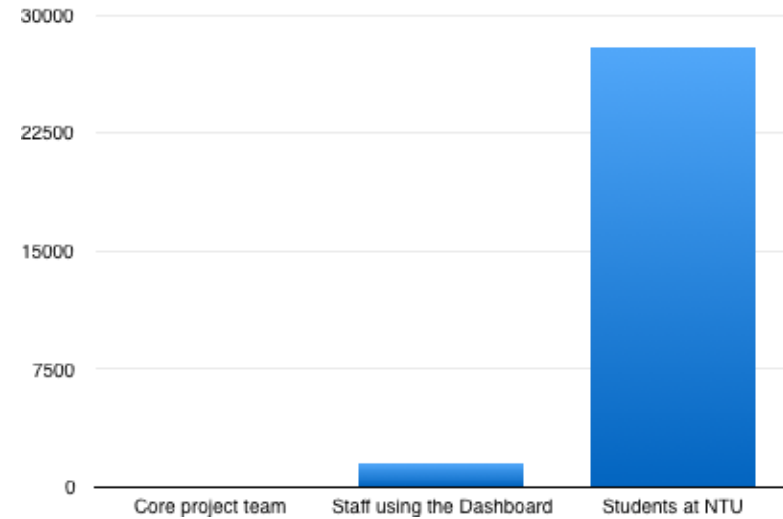
Who is the agent of change?

Complexities around action

We have a chart, surely we've cracked it?



Acting on data is
much **harder** than
generating it



Draft Success for All criteria

Regular review & understanding of data informs action

Building social & cultural capital

Curricula, learning, teaching and assessment

Improving relationships

Psycho-social processes

Using data to improve the student experience

Learning metrics & learning analytics are levers

Useful to sustain good practice

Or to bring about change

Authentic

Trusted by users

Enable change

Thanks for
listening

Any questions?



Hetan Shah

@HetanShah

Executive Director, Royal Statistical Society

The Perils and Potential of Data



Showcase

