

Teaching Science: Doing it Differently

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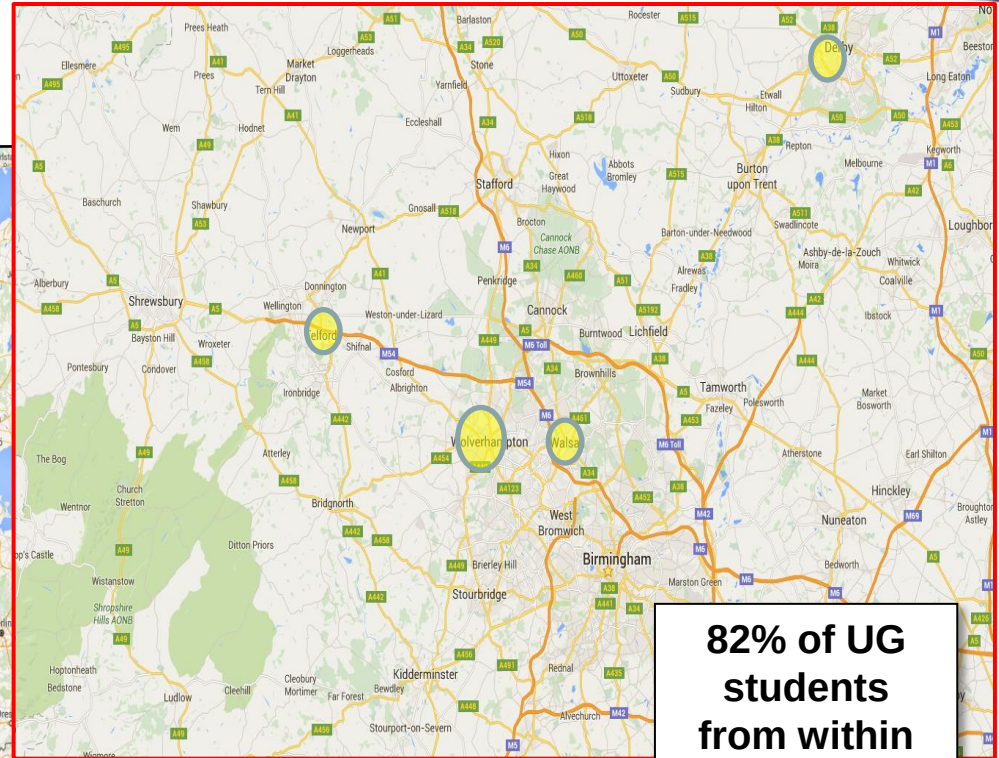
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About us



**82% of UG
students
from within
25 miles**

x4 main teaching campuses:

- Wolverhampton
- Walsall
- Telford (Shropshire)
- Burton

“The University of Opportunity”

- **Our Mission**

- To put students first, maximising their opportunities and delivering outstanding education and support.

- **Our Foundations**

- Supporting the local economy: increasing the skills and knowledge retained in the West Midlands; maximising the potential of our staff.

- **Our Ambition**

- To create and share knowledge locally, nationally and internationally, gaining influence and recognition.

- **Leaders in Technology**

20,000
students

2,500 staff

800 academics

~€325m
annual
turnover

500 degree
programmes

95% students
working / studying
within 6 months of
graduation

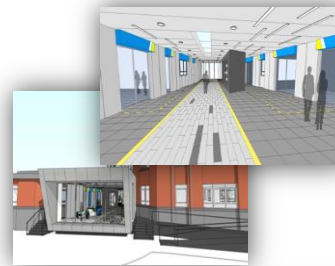
The Future Landscape (~£250m: 2015-2025)



~£25m Rosalind Franklin Science Centre
(opened January 2015)



~£18m Business School Lord Swarj Paul Building
(opened December 2015)



~£10m Automotive Engineering Telford Innovation Campus
(opening September 2016)



~£11m Science Technology and Prototyping (STaP) extension to the Science Park



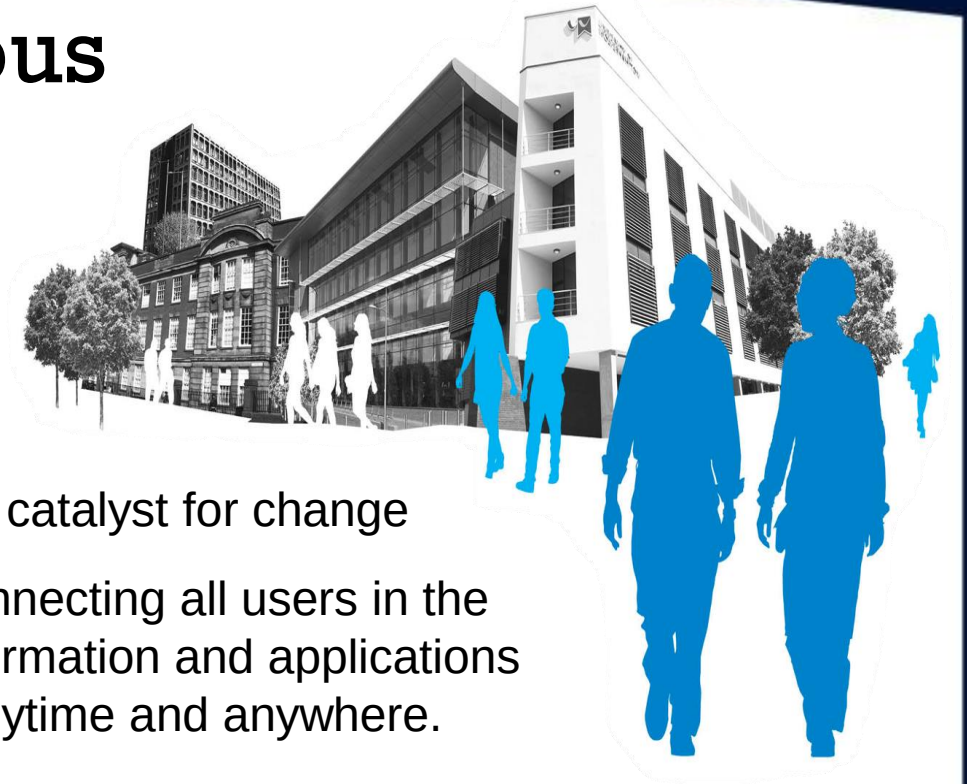
4,000m² office, labs, and workshop space (opening Spring '17)



Springfield Campus
including Construction UTC (Sept '16), Elite Centre for Manufacturing Skills (July '17), and School of Architecture (July '18)

The Digital Campus

**~£30m Digital
Campus
(2015-2020)**



- The Digital Campus will act as a catalyst for change
- Enabling Cultural Change by connecting all users in the University Community to the information and applications they need – and each other – anytime and anywhere.
- Every bit as important as the physical campus, the Digital Campus is a campus without boundaries
- Bringing together the University's people, processes and systems and supporting all University activity

‘The Experiment’



Teaching science without teaching spaces

The Rosalind Franklin Science Centre

- New Building
- New Pedagogy
- New Challenge



The Traditional Approach

- A radical change
- The old laboratories
- Traditional video production techniques



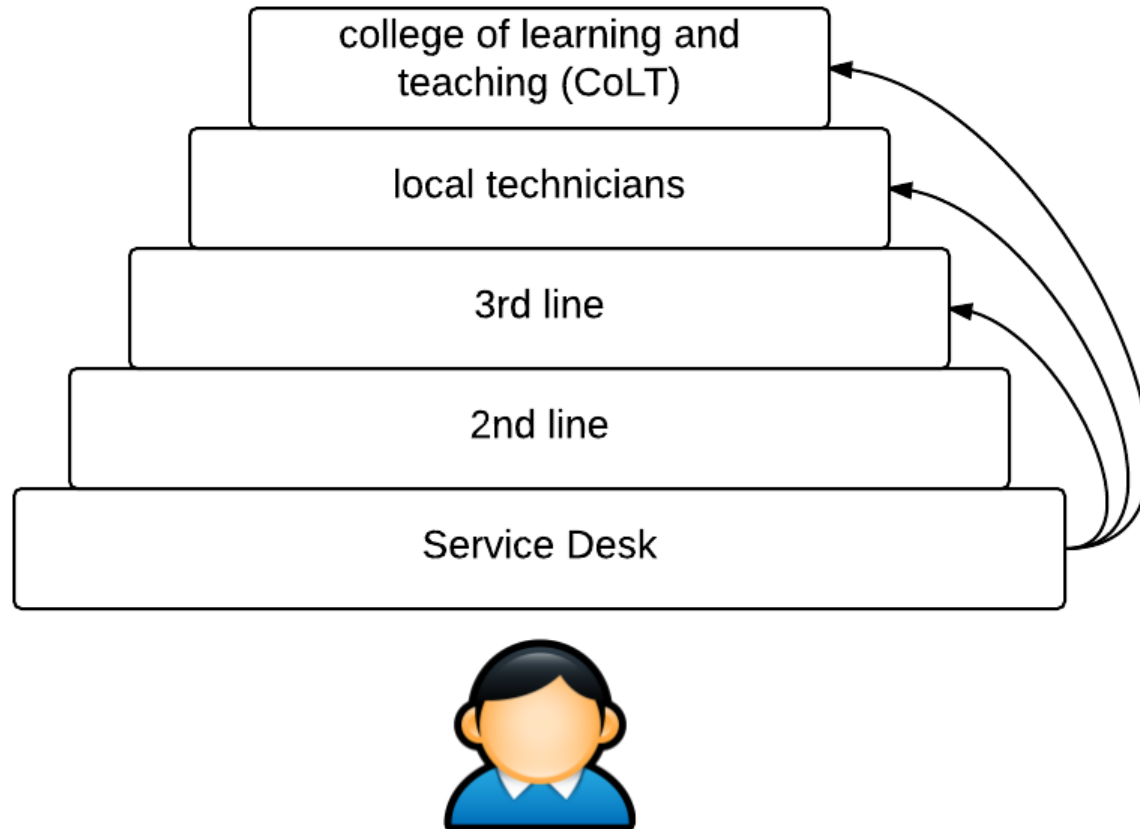
The Journey – Old to New (1)

- Workstreams
 - SYSTEMS
 - Authentication, Grouping, Cloud Provision, etc.
 - DEVICES
 - Hardware & Software, Configuration, Management
 - CONTENT
 - Compliance, Copyright, IPR

The Journey – Old to New (1)

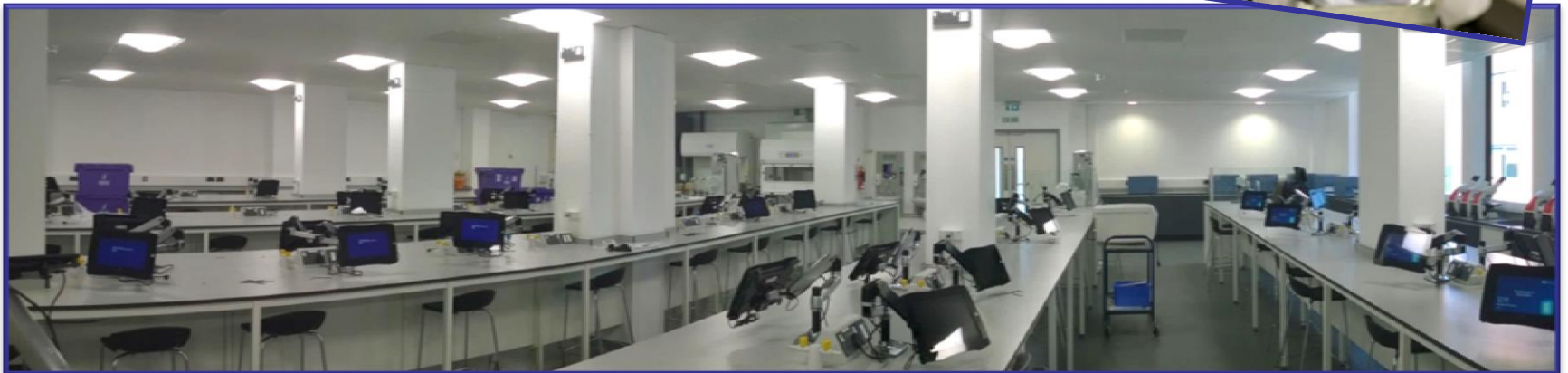
- Workstreams
 - STAFF DEVELOPMENT / TRAINING / COMMS
 - Identifying Champions, Briefings, Training, User Groups
 - SUPPORT
 - Sustainable model (next slide)
 - EVALUATION
 - More later...

Sustainable Support Model



A laboratory in Rosalind Franklin

- Opened in 2014/15
- State-of-the-art technologies – Panopto one of many
- Small-scale, closed pilot during Sem 2 14/15 in Rosalind Franklin and Millennium City Lecture Theatre



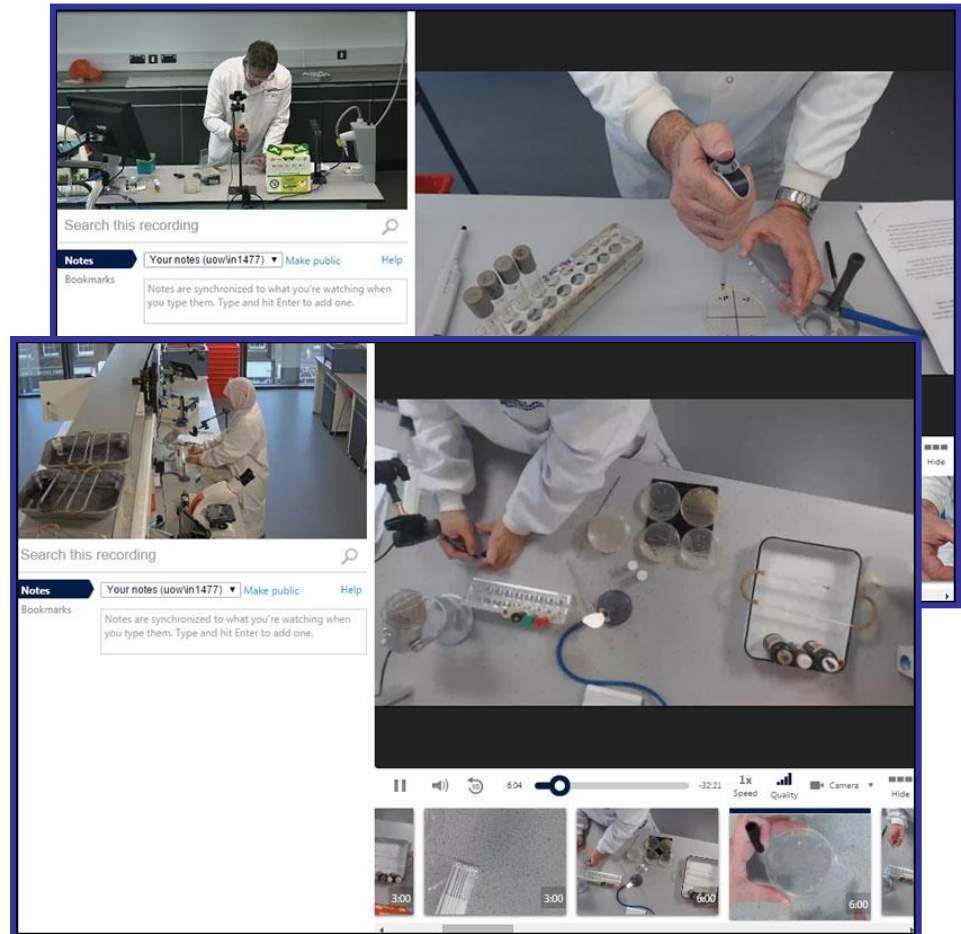
‘Science-proof’ Recording and playback

- 3 recording locations
- Touch-screen interfaces
- Multi-camera capture
- High Definition audio and video capture devices
- Live stream to other teaching laboratories and other locations



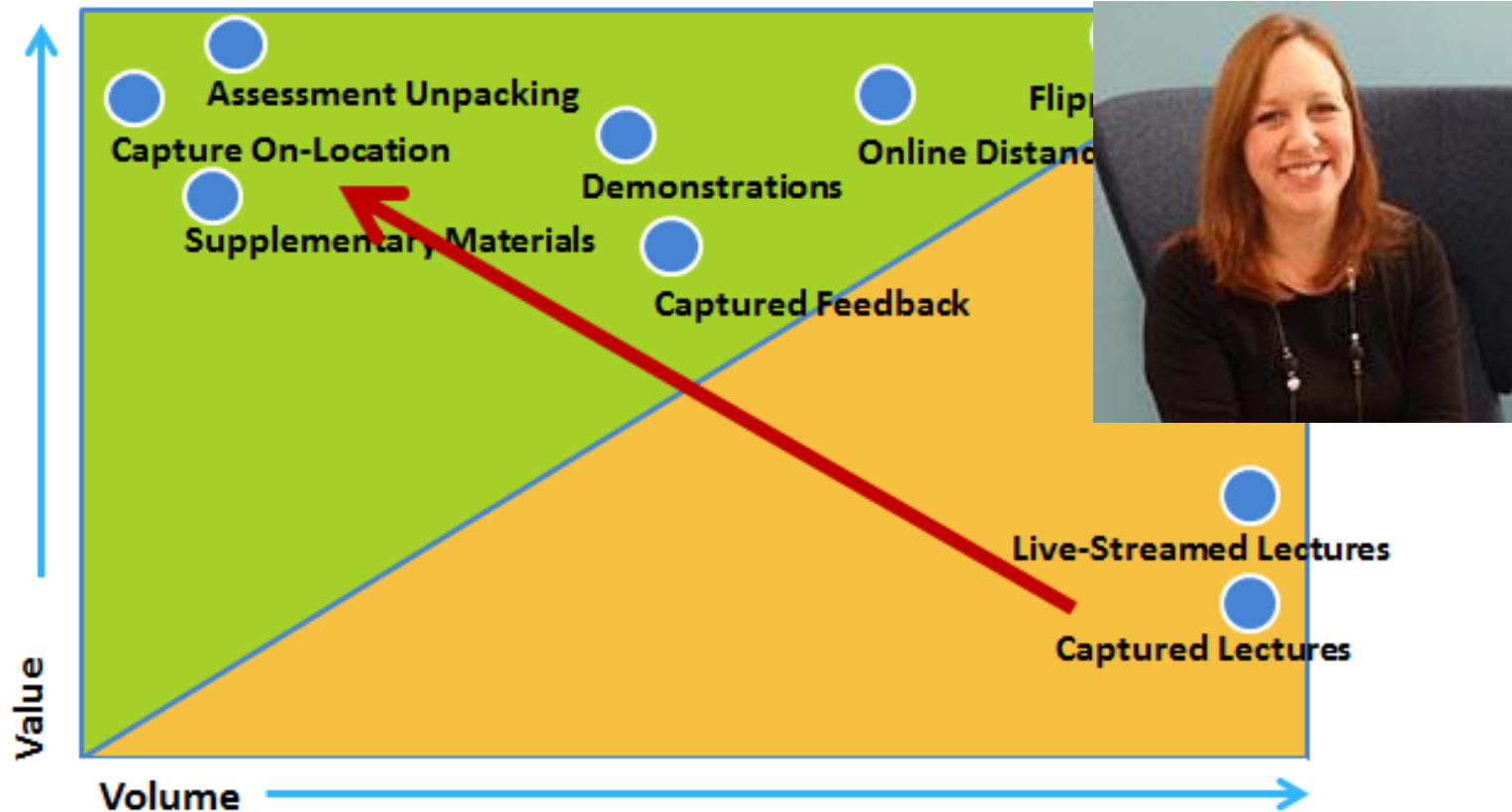
Autonomous Capture & Flexible Playback

- Recording spaces are “easy to use”
- Record what they need when they need it
- Stream live or make available via the VLE
- (almost) Instant availability



The Capture Value Model (Witton 2015)

@gemmawitton



Witton, G. (2016), The value of capture: Taking an alternative approach to using lecture capture technologies for increased impact on student learning and engagement. *British Journal of Educational Technology*.
doi: 10.1111/bjet.12470

Development Ideas

- Focus on adding value in discipline-specific learning spaces
 - Performance
 - Engineering
 - Sport
 - Health



Building on Success and Embracing Change

- Fostering confidence
- Supporting innovation
- Designing student-centred spaces
- Working towards a coalescence of the physical and virtual

“Learning and Teaching innovation is at the heart of our current success and pivotal to future success, and as such a number of initiatives are already underway”.

Professor Geoff Layer, Vice-Chancellor
March 2016

Reinforcing our approach

Enhance
Empower
Extend



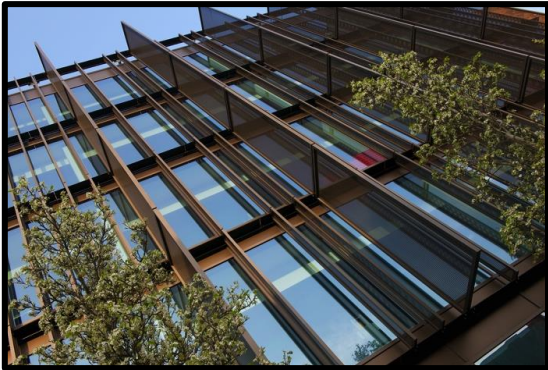
Fulfilling our Potential: Teaching Excellence, Social Mobility and Student Choice

Presented to Parliament
by the Secretary of State for Business, Innovation and Skills
by Command of Her Majesty

November 2015

Om 9141

Q&A



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