Technology Enabled Lifelong Flexible Learning

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Introduction

What is Flexible Pedagogy

Why Technology Enhanced Learning (TEL)

Of Technology and Flexible Pedagogy

What does it offer to Lifelong learning

Future possibilities....

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Terminology

- Computer Aided Learning (CAL)
- Computer Aided Instruction (CAI)
- Computer Based Assessment (CBA)
- Computer Mediated Learning (CML)
- eLearning – focus on Internet based
- mLearning – focus on mobile devices
- As a group :
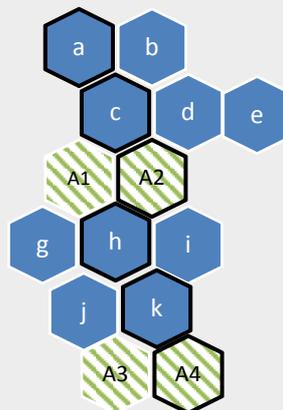 Technology Enhanced Learning
- Learning = Teaching ?

WHAT DOES FLEXIBLE PEDAGOGY MEAN FOR STAFF AND STUDENTS?

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Flexible Pedagogy

- enables learners to choose aspects of their study.
- Typically the
  - when,
  - where and
  - how
  of learning
- Aim is to empower the learner.

A flexible learning pathway

Open up learner choice: **what** and **how** to learn

And how to show that (test)

From: tinyurl.com/nv2vnzc

WHAT DOES TECHNOLOGY OFFER IN TEACHING AND LEARNING?

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Benefits of TEL

- We can consider technology to be valuable/worth doing if it gives us some *Value Added*, either
- For the Teacher
- For the Learner
- Or ideally for both.
- But also within the context of the department, discipline and institution.

Technology and Learning

- Can vary from (traditional) lecture notes in PowerPoint, PDF or Prezi
- Through automating and distance based assessments and activities
- To interactive and self-containted complex learning materials and options

Potential Benefits to Teachers of lifelong learning

- Scalability of teaching
- Supports novel approaches (impractical without)
- Can automate some aspects of teaching
- Allows focus to be change – from didactic delivery to guiding students
- But it doesn't necessarily
  - Save time overall
  - Make things easier!

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Potential Benefits to Learners

- Supports different learning styles
- Supports different lifestyle and other choices and constraints
- Potential to personalise the learning experience, with tailored content and assessments

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What about students' problems

- Some of the key problems faced by - and with - new students, are

a) understanding what to do

b) engaging with learning

c) getting help

d) staying the course

WHAT TECHNOLOGIES CAN WE ADOPT?

Example Technologies

- Presenting material (traditional)
  - Slides:Powerpoint, PDF, Prezzi
  - eBooks, PDF of lecture notes
  - Interactive learning objects
  - Live Mathematics workbooks (e.g. MathCAD, Mathematica, Word)
  - Record lectures – PowerPoint already allows time and audio recording (you'll need your own laptop)
- Assessment
  - CBA – tests, quizzes, adaptive tests, free text
- Student generated content: e.g. Web 2.0

Flexible adaptive testing

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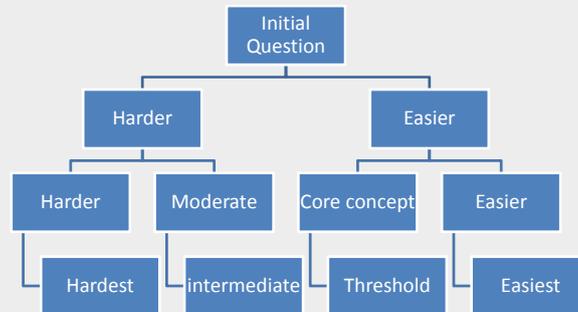
Web 2.0 as a paradigm for teaching

- Web 2.0 comprises a number of technologies
- Many students are already familiar with these
  – so potential for lifelong learning is high
- But remains a potential barrier for others
- Some of the characteristics of Web 2.0 are
  – the notion of user focussed content (user-centred design)
  – (User) aggregation of content to produce bespoke information
  – Collaboration and participation

Wiki

- For example to allow students – in groups or individually to create a working portfolio e.g. of lab activity
- Influence to engagement: Encourages students to easily and regularly add content
- Pros - allows staff to monitor activity
- Cons – depending on implementation, tracking changes and keeping track of authors can be an issue, especially for group work
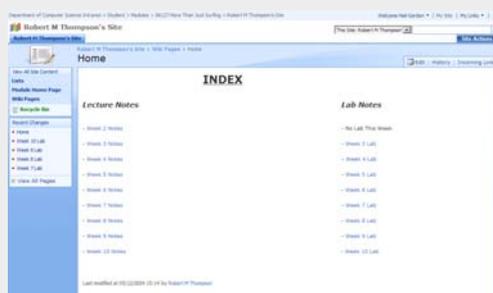
ePortfolios and PDP

- Blogs, mysite and other technologies offer potential for ePortfolios
- Sites such as Flickr, GoogleDocs and OfficeLive all support facilities that can provide ePortfolio and ePDP solutions
- As do technologies such as SharePoint
- These may be more popular with students than specialist ePortfolio solutions
- JISC provides some advice on *Effective Practice with e-Portfolios*

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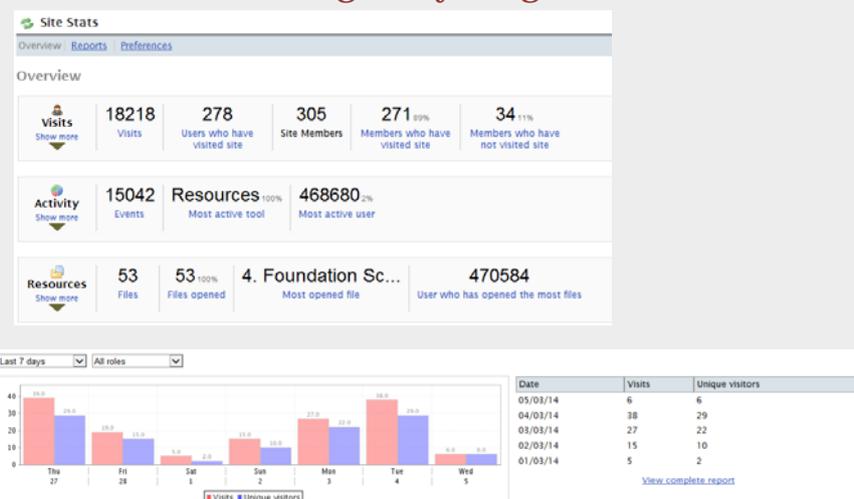
Content delivery

- Other technologies - such as podcasts - fall under Web 2.0
- Less about participation itself, they can be effective ways of delivering content
- For retention and engagement, they do offer the benefits of mobility and accessibility
- Particularly useful for induction and supporting mainstream teaching
- Also used by some colleagues for feedback

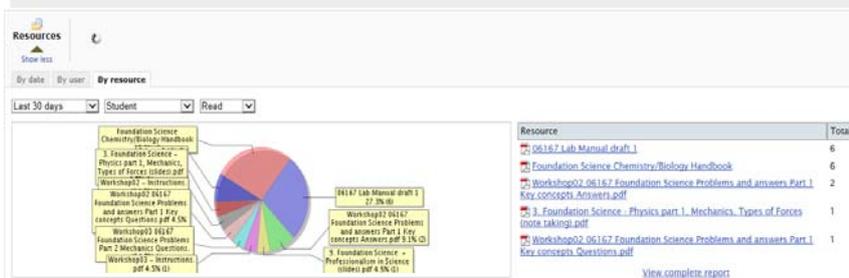**LEARNING ANALYTICS**

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Learning Analytics

- Attendance data (typically available through student monitoring systems)
- Engagement data from VLE based tests (formative and/or summative)
- Access statistics (e.g. from VLE sites)
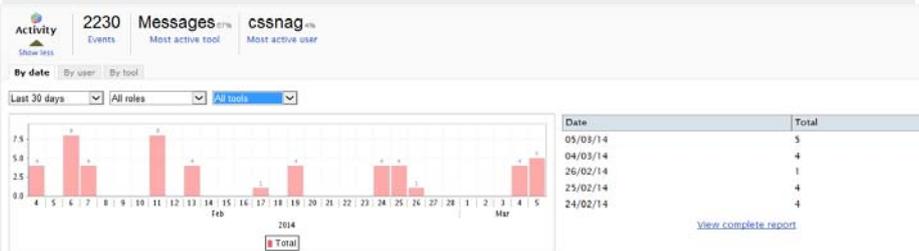- Combine to provide profiles of students – e.g. who looks like they may be "at risk"

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So what can learning analytics give us?

Analytics can tell us
WHAT students are doing

Resource	Total
06167 Lab Manual draft 1	6
Foundation Science Chemistry/Biology Handbook	6
Workshop02 06167 Foundation Science Problems and answers Part 1 Key concepts Answers.pdf	2
3. Foundation Science - Physics part 1, Mechanics, Types of Forces (note taking).pdf	1
Workshop02 06167 Foundation Science Problems and answers Part 1 Key concepts Questions.pdf	1

View complete report

Most active resource

When they are doing it

- Different analytics tools can offer analysis of when students access resources

Date	Total
05/03/14	5
04/03/14	4
26/02/14	1
25/02/14	4
24/02/14	4

View complete report

and when students are using the learning resources

Who is (not) doing it

- Tools can enable staff to check if students are accessing resources
- Carrying out tasks – assessed or otherwise
- And whether they are contributing to activities e.g. team activities
- Web 2.0 and learning tools support this – with date and author stamping

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Report

Site:	"06167 131451" (06167_131451)
Activity type:	Visits
Time period:	All
User selection type:	Users not matching previous conditions
Report date:	05-Mar-2014 16:14

Viewing 1 to 20 of 34 items

| User ID	Name ▲

ASSESSMENT

Assessment

- Can be a key driver for student behaviour
- Clearly needs to match to learning outcomes
- Should reflect discipline and departmental needs
- Be practical – for cohort, time, workload
- Consider the balance

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Flexible Assessment

- Consider how flexible we are in assessment
- The final exam (100%) is not flexible!
- Consider gamification – offer multiple attempts (lives) and instant reward (marks)
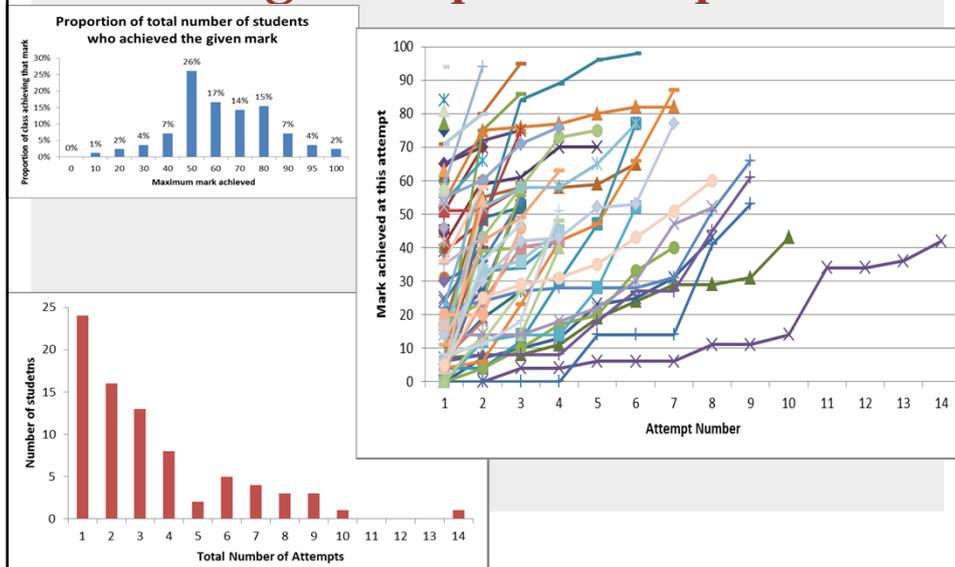
Conclusions

- Flexible Pedagogy encourages a wider range of learning materials and content and is particularly relevant to lifelong learning
- Technology can enable different approaches to teaching – but itself requires flexible approaches from staff

This work was part of the **HEA Flexible Pedagogy Project**. For the full report see "*Flexible Pedagogies: technology-enhanced learning*" at

http://www.heacademy.ac.uk/resources/detail/flexible-learning/flexiblepedagogies/tech_enhanced_learning/main_report

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