Nov 2nd, 9:00 AM - 9:45 AM

Making the Technology Fit the Pedagogy

Keith Beechener
The Open University, kmb69@tutor.open.ac.uk

Wendy Fisher
The Open University, W.A.Fisher@open.ac.uk

Bill Tait
The Open University, billtait@btinternet.com

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Making the Technology Fit the Pedagogy

Keith Beechener
Wendy Fisher
Bill Tait

SoTL Commons Conference
November 1-2, 2007
Using Web 2.0 Tools

Keith Beechener
Associate Teaching Fellow
Centre for Open Learning in Mathematics, Science, Computing & Technology (COLMSCT)
The Open University
Outline

• To illustrate some uses of Web 2.0 technology tools

• To highlight some interesting and unintended consequences of using the technology

• To consider whether technology is the driver or the tool
My Web 2.0 Classroom

- Video / Audio conference
- VLE
- Virtual Worlds
- Blog
- Social Networking
- Wiki
- ePortfolios
- Podcast
Forum = tutorial discussion
Tutor News

Edition 25

Contents:
>> 1. Important Dates
>> 2. Group Email Facility
>> 3. Stories on the Net
>> 4. My Week

>> 1. Important Dates

Online Tutorial 2 - is currently active. Only three people have posted their contributions in the first week. So we can expect a flood of postings this week??? Marks may be lost by posting late.

CMA43 - Cut off 19th April 2007

Face to Face Tutorial - Saturday 21st April 2007
Please can you all let me know if you are planning to attend the tutorial. (Still waiting for contributions to the Road Transport Technology gallery)

TMA04 - Cut off 26th April 2007

>> 2. Group Email Facility

My thanks to those who responded to the group email I sent on 22nd March 2007.
The message was sent to 13 active students in this group.

>> 3. Stories on the Net

What are your thoughts on the spreadsheet activities - integration of Fun or a useful program - has anyone used it to good effect on their own pictures? Here's an example I created from a picture I took in Copenhagen last year and gave it a 3D button effect. In fact click on it to bring up a web page showing how it is situated in Copenhagen harbour.

>> 4. My Week

4 points from 2 matches at home this week (beat Preston 1-0 on Tuesday, and drew with Birmingham 1-1 yesterday) leaving Colchester Utd one place lower in 9th place in the Championship.

No studies to do so I have time to devote to my OU research project.
‘Tutor News’ = classroom handout
Impact of Tutor News

<table>
<thead>
<tr>
<th>TMA01</th>
<th>T175</th>
<th>T171</th>
</tr>
</thead>
<tbody>
<tr>
<td>kmb 06j</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>haca 06J</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>kmb 05j</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>haca 05j</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>TMA01</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>ECA</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Retention</td>
<td>73%</td>
<td>82%</td>
</tr>
<tr>
<td>Tutor News Used?</td>
<td>y</td>
<td>y</td>
</tr>
</tbody>
</table>

Read by average 86% of tutor group
T175-06J 'Tutor Group kmb69'

Introductions

October 2006

Favourite Web Sites

November 2006

Most Important ICT Invention

December 2006

Flickr Gallery (several images - may take some time to load)

January 2007

OLT1: Email Web Sites

February 2007

OLT1: Email - Benefit or Burden?

March 2007

TMA02: Social Bookmarking

April 2007

TMA03: News Stories

OLT

Online Tutorial 2 (OLT2)

TMA04: VSAT Web Info

http://discuss2.open.ac.uk/~keith_beechener/t175/
Internet = classroom wall
Social Networking / Bookmarking

- keep your own notes

Bookmark with:

Delicious  Digg  reddit  Facebook  StumbleUpon

What are these?
Having said that, though, she wouldn’t be against using MySpace to interact with some educators - as long as they passed her personal test for coolness. “I would MySpace them all the time with (homework) questions,” Covey said of certain educators. “But there are some teachers who are total squares, and with them it would be uncomfortable.”

Facebook is a more social network.
It's a social network for students.
They have no need to network with students for social purposes. Faculty & students should remain separate when it comes to social functions.

I've just had a Facebook friend request from one of my current groups of students. I don't feel comfortable adding students to my Friends - it feels inappropriate, and I wouldn't necessarily want them to have access to info about members of my family.
Your photos
15 photos / 11 views

Golden Gate Bridge
I took this picture in San Francisco in October when I had a free evening on a business trip. It’s
© This photo is public. Change?
Uploaded on Dec 3, 2006 | Delete
1 comment

TheRegent
This is my favourite place - I shall be disappointed if people do not know what it
© This photo is public. Change?
Uploaded on Nov 24, 2006 | Delete
1 comment

Guess where?
Reportedly the 2nd highest cliff in the world. Trouble is I had to get back to the white dot on the
© This photo is private. Change?
Uploaded on Nov 16, 2006 | Delete
3 comments

Keith’s Photo on Saturday morning

Damian’s shot

Anna’s best place ever - tatras high mountains
# Social Networking

<table>
<thead>
<tr>
<th>Picture of</th>
<th>Date Taken</th>
<th>Camera</th>
<th>Largest Res</th>
<th>Uploaded</th>
<th>GMT</th>
<th>Mode</th>
<th>Tags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gt Yarmouth, Suffolk</td>
<td>07-Apr-04</td>
<td>WWLPDC3035</td>
<td>800 x 600</td>
<td>08-Nov-06</td>
<td>09:25</td>
<td>Private</td>
<td>None</td>
</tr>
<tr>
<td>New York at night</td>
<td>?</td>
<td>?</td>
<td>640 x 480</td>
<td>09-Nov-06</td>
<td>06:47</td>
<td>Public</td>
<td>None</td>
</tr>
<tr>
<td>Lake District (Allen Crags)</td>
<td>20-Mar-05</td>
<td>Canon PowerShot A80</td>
<td>1024 x 768</td>
<td>11-Nov-06</td>
<td>17:13</td>
<td>Private</td>
<td>My, small, Heaven</td>
</tr>
<tr>
<td>Lake District (Allen Crags)</td>
<td>20-Mar-05</td>
<td>Canon PowerShot A80</td>
<td>1024 x 768</td>
<td>11-Nov-06</td>
<td>17:13</td>
<td>Private</td>
<td>My, small, Heaven</td>
</tr>
<tr>
<td>Lake District (Allen Crags)</td>
<td>20-Mar-05</td>
<td>Canon PowerShot A80</td>
<td>1024 x 768</td>
<td>11-Nov-06</td>
<td>17:13</td>
<td>Private</td>
<td>My, small, Heaven</td>
</tr>
<tr>
<td>Fulbourn Woods, Cambs</td>
<td>11-Nov-06</td>
<td>Olympus C-5000Z</td>
<td>768 x 1024</td>
<td>12-Nov-06</td>
<td>19:37</td>
<td>Public</td>
<td>None</td>
</tr>
<tr>
<td>Niagara Falls</td>
<td>07-Sep-04</td>
<td>Nikon E3100</td>
<td>1024 x 768</td>
<td>12-Nov-06</td>
<td>19:44</td>
<td>Public</td>
<td>None</td>
</tr>
<tr>
<td>River Cam</td>
<td>11-Jun-06</td>
<td>Fujifilm FinePix E550</td>
<td>800 x 600</td>
<td>12-Nov-06</td>
<td>20:46</td>
<td>Public</td>
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</tr>
<tr>
<td>Tatra Mountains, Poland</td>
<td>28-Jul-06</td>
<td>Fujifilm FinePix F10</td>
<td>1024 x 768</td>
<td>13-Nov-06</td>
<td>13:49</td>
<td>Public</td>
<td>Anna's, best, place</td>
</tr>
<tr>
<td>Tatra Mountains, Poland</td>
<td>24-Jul-06</td>
<td>Fujifilm FinePix F10</td>
<td>1024 x 768</td>
<td>13-Nov-06</td>
<td>13:49</td>
<td>Public</td>
<td>Anna's, best, place</td>
</tr>
<tr>
<td>Oahu, Hawaii</td>
<td>01-Jun-04</td>
<td>Sony Cybershot</td>
<td>1024 x 768</td>
<td>13-Nov-06</td>
<td>20:50</td>
<td>Private</td>
<td>None</td>
</tr>
<tr>
<td>Washington Memorial</td>
<td>11-Nov-06</td>
<td>Pentax Optio 330</td>
<td>1024 x 768</td>
<td>14-Nov-06</td>
<td>11:47</td>
<td>Private</td>
<td>None</td>
</tr>
<tr>
<td>Cabo Girao, Madeira</td>
<td>01-Jun-05</td>
<td>Canon PowerShot A80</td>
<td>1024 x 768</td>
<td>16-Nov-06</td>
<td>20:16</td>
<td>Public</td>
<td>None</td>
</tr>
<tr>
<td>The Prince Regent Pub</td>
<td>23-Nov-06</td>
<td>Nikon Coolpix S4</td>
<td>1024 x 768</td>
<td>24-Nov-06</td>
<td>11:32</td>
<td>Public</td>
<td>None</td>
</tr>
<tr>
<td>Golden Gate Bridge, SF</td>
<td>06-Oct-06</td>
<td>Fujifilm FinePix F10</td>
<td>1024 x 768</td>
<td>03-Dec-06</td>
<td>19:28</td>
<td>Public</td>
<td>None</td>
</tr>
</tbody>
</table>

• feedback & discussion
Audio / Video

- Break-out groups
- Show & tell
- Group Discussion
- Collaborate
Summary

- The pedagogy already exists
- The technology adapts to the pedagogy
- Look for the educational benefits
Don’t need to re-invent the wheel …

… just find new ways of using it!

Keith Beechener

k.m.beechener@open.ac.uk

http://discuss2.open.ac.uk/~keith_beechener/t175/
Using Tablet PCs for Assessment Feedback

Wendy Fisher
Teaching Fellow
Centre for Open Learning in Mathematics, Science, Computing & Technology (COLMSCT)
The Open University

SoTL Commons Conference
November 1-2, 2007
Open Distance Learning at the Open University in 2007

7000 – 8000 Lecturers
200,000 Students World-Wide
50 % Electronic submission of Assessment
Conservation

The same standards of insulation and glazing will be used as in plan 1. The proven economies will also be valid in this plan as the building is of the same construction and materials. (The amounts used are detailed below).

Insulation used in PLAN 2

<table>
<thead>
<tr>
<th>Walls</th>
<th>Windows</th>
<th>Loft</th>
<th>Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>75mm</td>
<td>Double</td>
<td>150mm</td>
<td>85mm</td>
</tr>
</tbody>
</table>

Summary of costs

The cost of building plan 2 will be significantly greater than that of plan 1. The larger building brings the advantage of greater space for plan 1. The larger building brings the advantage of greater space for plan 2. The larger building brings the advantage of greater space for plan 2.

The summary of costs is as follows:

- Annual heating cost: £15,198.75
- Mortgage repayments: £15,198.75
- Total annual outgoings: £30,397.50

Good use of comparative analysis.

MINIMISING THE COSTS

Thermal insulation

The external walls, the floors and the roof will be insulated with an appropriate material at a suitable thickness. The windows will all be double glazed.

Levels of insulation

The insulating elements were added one by one to assess the effect of each, seeking an overall decrease in utility on annual heating costs and mortgage repayments. Tables 1 to 4 show the savings obtained as they are compounded. The best figure for each stage is marked with an asterisk, therefore Table 4 shows the lowest costing. (i.e. with all energy-saving devices optimised).

| TABLE 1: Varying thickness of wall insulation

<table>
<thead>
<tr>
<th>Insulation thickness</th>
<th>25mm</th>
<th>30mm</th>
<th>40mm</th>
<th>50mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost saving</td>
<td>£125.87</td>
<td>£156.97</td>
<td>£187.71</td>
<td>£218.37</td>
</tr>
</tbody>
</table>

| TABLE 2: Varying the type of wall material

<table>
<thead>
<tr>
<th>Insulation thickness</th>
<th>Block</th>
<th>Render</th>
<th>Plaster</th>
<th>Mary Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost saving</td>
<td>£125.87</td>
<td>£156.97</td>
<td>£187.71</td>
<td>£218.37</td>
</tr>
</tbody>
</table>

| TABLE 3: Varying thickness of loft insulation added

<table>
<thead>
<tr>
<th>Insulation thickness</th>
<th>100mm</th>
<th>150mm</th>
<th>200mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost saving</td>
<td>£125.87</td>
<td>£156.97</td>
<td>£187.71</td>
</tr>
</tbody>
</table>

| TABLE 4: Varying thickness of floor insulation added

<table>
<thead>
<tr>
<th>Insulation thickness</th>
<th>100mm</th>
<th>150mm</th>
<th>200mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost saving</td>
<td>£125.87</td>
<td>£156.97</td>
<td>£187.71</td>
</tr>
</tbody>
</table>

An excellent systematic analysis and a good presentation.
Paper and Pen replaced with Key Board and PC

TMA T175 01

Question 1

A) I have planned my study to best fit around my weekly timetable of college, work and social activities. Also I work best early in the morning, so I have tried to plan study periods for then. Rather than studying in bursts, I find that studying large chunks at once works well for me.

I think you give a good general overview of your study habits here, and your realistic understanding of the way in which you are best able to study is another positive aspect of your answer. I do feel that your answer is a little short, however, and I would have liked to see you go into greater detail about how you're going to allocate the 6 hours study time recommended for T175 into a typical week. Also, I understand you're taking M130 alongside T175 and you might have discussed briefly how you were going to co-ordinate your study of two OU courses. There was also no discussion of time management issues you can foresee during the course as a whole. Do you have any exams at college, upcoming projects at work, holidays planned? In order to plan your learning it's a useful skill to be able to look beyond the week ahead and try to see how the whole course fits together, and how you're going to pace yourself for its duration. Does that make sense? You might find some of the
Making the technology fit the pedagogy?

• Correspondence tuition
• Questions over how to insert feedback
• How do you annotate a .doc
• How do you deal with graphs?
• How do you deal with mathematical notation?
• How do you deal with scientific nomenclature?
• How do you deal with diagrams?
Software incompatibility

No longer able to annotate at relevant point

Scientific nomenclature

Frustrated some Lecturers

Diagramming

Mathematical notation

Was something lost in this transition?

Easy to up-load and download

Poor handwriting no longer an issue

Macros could help with direct annotation

Techie solutions abound in annotation of scripts with PC
Lecturer writes onto the screen of a tablet PC and annotates a student e-assessment, with digital ink, just like paper and pen. Final stage save as mht, student can open assessment in a web browser.

75 distance students submit work to the web depository.

5 Lecturers collect students work from the web depository.

Tablet PC Research Project
Tablet PC – Electronic Ink Technology
Making the technology fit the pedagogy?
Speed typists have adapted to the PC and keyboard technology enables or inhibits creative use of technology. A Colour Pen facilitates the creation of space. Reflection on practice is about emotional connectivity with task. A Colour highlighter makes erasing easy. Research Findings
Pedagogy has been extended by the use of a Tablet PC in assessment in relation to pen and paper

Colour can be linked to Learning Outcomes

Colour can be linked to grammar

Eraser enables re-editing
Wendy Fisher
w.a.fisher@open.ac.uk

http://tabletpcworkshop.blogspot.com/

Reference
http://unmuseum.mus.pa.us/wmap.htm
(The Museum of Unnatural Mystery)
Learning Objects

Bill Tait
Associate Teaching Fellow
Centre for Open Learning in Mathematics, Science, Computing & Technology (COLMSCT)
The Open University

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November 1-2, 2007
A learning object is a modular course component whose content addresses a specific learning objective. It is encapsulated from the content of other objects but does depend on prerequisite objectives having been achieved by them. So it can be replaced by any other object that targets the same learning objective and has the same study prerequisites.
Object Pedagogies

The object has a Learning Content which, in this example, is an Image.

It should also have a Learning Activity, here expressed in text, to describe how the content is to be used.
Learning Content

Provided they meet the same learning objectives and have the same prerequisites, Content Objects can be replaced by a variety of pedagogical alternatives.

There are so many available there is bound to be one that is suitable for a particular learner.
In addition there are many ways of using this content in the Learning Activities.

Independent learning, problem based learning, online discussion, personal discussion and many others,

Read and think about it

Read and try the exercises

Read and discuss it

Delete existing URL and enter new one

URL www.google.co.uk
Pedagogy Gained

So there are many objects and many pedagogies available.

Tutors and students can use an Internet search to find the most suitable, thereby, making the technology fit the pedagogy.

Or they can study many objects on the same subject to invoke the constructivist principle of multiplicity as never before, thereby, making the pedagogy fit the technology.
But there are pedagogical deficits in terms of authenticity and consistency.

Because of encapsulation, authentic progression by means of examples used inside objects is not possible, at least, in single objects.

Because of the variability of source styles the learner interface is not consistent, thereby adding to the learning overheads.
So the aim was to produce Learning Objects that tutors could edit for themselves to deal with these problems.

This adaptability was achieved by using the eXtensible Markup Language (XML) to separate the contents of Learning Objects from their containers.

This allows the contents to be edited by tutors to associate the objects with online discussions or further help in which authenticity and consistency issues can be addressed.
eXtensible Learning Objects

The project used online JavaScript tutorials written in Flash with browser simulations.

Tutors edited the text to customise the Learning Activity to link with their own online discussions.

It proved to be feasible and feedback was positive.
More eXtensibility

Searching the Web

Here is a short movie clip on using the Google search engine to find information on JavaScript on the web.

Watch the movie then carry out your own search to find pages about HTML. Discuss your findings and decide which are the best sites.

See if you can find any other search engines.
Conclusion

By varying the Learning Activity and the Content Object, the technology can be made to fit almost any pedagogy.

By using a search engine to get multiple views, the technology can introduce new pedagogies.

By allowing tutor customisation of content, existing pedagogies can be retained with the new.

What do you think?

wht4@tutor.open.ac.uk
http://www.btutor.com/floc/admin/