

Information Technology in Teaching and Learning: A Report on Trial Applications of MultiMedia in the Department of Political Science

Dr Peter Chen, Centre for Public Policy, Department of Political Science, Faculty of Arts, University of Melbourne, pcche@unimelb.edu.au, +61 3 8344 3505

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Summary

In accordance with the policy of the University of Melbourne to develop and integrate the use of Information Technology (IT) in teaching and learning, in 2003 a small-scale trial

was undertaken to apply desktop MultiMedia (MM) to the teaching of one subject which had made limited use of teaching in learning in previous years.

This document reports on the outcomes of this trial, indicates the positive and negative benefits of this application, and makes some conclusions about barriers and enablers to the implementation of IT in the teaching environment. The aim of the document is to:

- Report on agreed activities to the Head of Department, Political Science, and
- Provide feedback on IT applications in teaching to other staff of the University of Melbourne.

Subject Background

The subject *166-022 Public Policy Making* is an introductory subject to the discipline of Public Policy (a sub-strand of Political Science and Public Administration). The subject is taught at the 2nd and 3rd year level, primarily attracting students from the Arts Faculty (the majority from the discipline of politics), but also attracting a significant cohort of students from the disciplines of Arts/Law, Economics, Commerce, Environmental Sciences, and Science – who see the subject as either able to provide:

- Them an insight into policy processes surrounding their core field of study, and/or
- A "job ready" subject for post-study employment.

The subject tends towards a combination of theory, practice, and case analysis – but has a specific theoretical focus (drawing from a variety of fields: politics, policy, administration and management, economics, human resource management) that makes the threshold for understanding difficult for many students with limited exposure to policy processes. The subject requires a significant amount of "de-learning" of media clichés and pejorative assumptions of government process before students can engage with holistic theoretical perspectives and concepts of policy initiation, design, and implementation.

IT and MM Application to 166-022

When the subject was run in 2002, the course made little use of Information Technology and MultiMedia. The subject contained a set of traditional "stand-and-deliver" lectures and matching tutorials that were supported by basic PowerPoint slides and a simple subject homepage that contained basic information about the course. There were limited expectations that students would view the subject homepage on a regular basis, and online communication of key reminders and messages were conveyed via lectures and email. PowerPoints were placed online using (then Windows NT) PowerPoint to HTML conversion, but the quality of the conversion process was limited with many students using non-Internet Explorer browsers encountering difficulties accessing these online resources. Lectures were audio taped (cassette) and placed in the Education Library as per common practice in the Department.

In line with the acquisition of new technology (see *Technical Information*, below), during the Professional Development Framework review process, the subject co-ordinator and

Head of Department agreed that this provided a good opportunity to trial more use of IT and MM in this subject.

In teaching the subject in 2003, therefore, a number of new approaches were conducted:

- The subject homepage was enhanced and developed (see below)
- Lectures were recorded digitally to be placed:
 - Into the Library as audio-CDs, which allowed:
 - For better quality recordings to be made available to students, and
 - Enhanced ease of access to the lecture content – students could move around the recording with greater speed and precision than with cassette tapes
 - Onto the subject homepage as MP3 files, which allowed:
 - Students to access the lecture remotely, if they were either unable to attend the lecture physically, or wished to review the subject content
- PowerPoints were to be placed on the subject homepage as both Adobe PDF and PPT (native format) files, as opposed to HTML conversions
- Guest speakers were to be video taped (in conjunction with audio recording) and video files of these speakers placed onto the subject homepage, and
- The Webcrossing subject discussion list package was to be employed.

In developing the subject homepage, these features were included:

- General subject information (outline, readings, class times, tutors and contacts)
- Assessment-specific information (presentation questions, essay questions, examination information, example papers, hints and tips)
- Links to the university catalogue entry of subject-specific resources
- A Frequently-Asked-Questions (FAQ) page
- A link to the discussion forum, and
- A page of lecture resources (containing the PowerPoints, MP3s, and video files)

The subject homepage was initially developed using the OpenOffice suite, but maintenance and development of the page was shifted to DreamWeaver when this resource became part of the Faculty's Standard Desktop Environment.

In the lecture environment, PowerPoint presentations were substantially improved over 2002, with:

- Clearer templating that was more pleasant on the eye
- Greater numbers of slides per lecture (10-15, up from 5-10)
- Greater use of diagrams, photos, and video (see below)

These improvements were facilitated by a lecture theatre of a more modern design to that used in 2002, with a stronger video projector that negated the need for room lights to be very low, and less physical separation between the lecturer and students¹.

MultiMedia elements of lectures included:

¹ The subject had been taught in a very traditional medical theatre in 2002, which included a crude projector that necessitated lights to be very low during the use of PowerPoint (and encouraged PowerPoint induced sleep) and a "swept back" seating arrangement that distanced the presenter from students.

- A small amount of VHS video displayed through the video rig included in the lecture theatre
- Extensive use of photographs (pictures of case events, pictures of theorists being discussed)
- Extensive use of representative diagrams (where appropriate to theory), and
- Some use of video clips embedded within the PowerPoints themselves (used largely where case examples were being discussed and where material was available, see below)

In addition, in line with best practice promoted by the Centre for the Study of Higher Education, some use (not extensive) was made of interactive discussions between lecture and class, using the whiteboard to record and discuss class ideas and points of view.

Technical Limitations, Problems, and Failures

The trial was not without limitations in application, problems, and failures that should be considered in reading this report, both:

- Because these limited the complete implementation of the pilot ideas, and
- Because they illustrate practical problems in delivering IT and MM in teaching.

Incomplete implementation problems included:

- Use of the Webcrossing discussion forum as not extensive, it became more of a "noticeboard" than a lively conversational space. More consideration of how to "kick off" ongoing discussion needs to be considered for 2004. Most activity on the discussion board focused around questions pertaining to assessment topics
- The subject homepage could have been developed even further with additional lists of information, case studies, and external links
- For students listening to MP3s remotely and looking at the PowerPoint displays at the same time, it is difficult – in the audio recording – to precisely determine when to move to the next slide, and
- In placing PowerPoints on the web (either as PDF or PPT files), embedded video elements did not remain attached to the presentations

Practical implementation difficulties included:

- Failure of the video system in the lecture theatre (one occasion) – loss of graphical support materials
- The laptop computer purchased was designed for field research (a military standard ruggedised model) and thus traded off physical toughness for some features (a well-resourced video card), attempts to create multi-platform video (beyond .WMV into Quicktime and MPEG formats) using a variety of software packages during the semester pushed the capabilities of the unit beyond their design, causing a critical failure of the laptop and requiring a complete operating system re-install. As a result, video files were only available in a format accessible by users of relatively recent operating systems
- The MP3 audio files, but particularly the video files, were incredibly large. The audio files averaging at about 10 megabytes in size per lecture, with video files – depending on the length of the guest speaker – of about 70 to 120 megabytes. These file sizes limited the practical abilities of students to access these files

- online² depending on the quality of their hardware, and their ability to afford bandwidth
- PowerPoint to PDF conversion is somewhat erratic in quality
 - Some conversion problems between wave files and MP3s (hardware teething problems)
 - The "standard" computer systems provided in the lecture theatres (a Windows 98 and Macintosh computer) were incapable of playing video of any quality – where embedded video was used, this necessitate it be run off the laptop system. The use of the laptop in the lecture theatre was therefore critical, as the standard lecture room system could not accommodate:
 - Digital video, nor
 - The recording of MP3 files. While lectures could have been recorded from the theatre's audio system to tape and then converted from tape to MP3, this approach was ruled out because of the double handing involved and the degradation of sound quality associated with audio cassettes³

Assessment of the Trial

To determine if the application of technology had significant benefits given the costs required (see *Barriers and Enablers*, below), two criteria were used to assess the subject:

- The "standard" Quality of Teaching (QOT) survey form issued to all subjects at the University as part of its Quality Assurance processes and policy (see *Caveats*, below), and
- An additional survey instrument (see *Attachment*, below) specifically aimed at assessing the impact and use of the IT and MM elements of the course.

Caveats

Interpreting the results of the implementation is difficult and caution is recommended. Overall, a number of specific research limitations should be remembered:

1. The subject was redeveloped in areas outside of IT and MM between the two years as a result of negative feedback in 2002, this included:
 - a. Substantial changes to course content and structure
 - b. A different textbook and revised subject reader, and
 - c. Changes to assessment and in-class (tutorial) activities
2. Only one of the three tutors employed in 2002 taught in 2003
3. The experience of the lecturer was very low (having not taught before 2002)

² As a practical illustration, while MP3s could be downloaded off the University LAN in a few seconds, accessing a 10mg MP3 via dial-up modem took about 1 hour to complete.

³ In this trial, even with an inexpensive microphone, the digital recording quality was very good. One limitation of not using the inbuilt room sound system to record the lecture, however, was the inability to utilize the radio microphone, and thus, when the lecturer moved away from the podium to address the class and use the whiteboard, sound quality suffered slightly. This, however, was not particularly significant.

4. The pilot itself may have influenced who completed the survey instruments (by allowing students to listen to lectures online, significant users of the technology may have been excluded from the survey)⁴
5. No IT specific survey was conducted in 2002, providing no baceline comparison,
6. The QOT survey is an instrument of very limited quality, containing:
 - a. Limited diagnostic ability
 - b. Limited ability to determine if responses are aimed at lecturers or tutors
 - c. High degree of ambiguity in question formulation
 - d. All of the well-established limitations associated with the use of likert scale indicators.
7. Clearly, this review suffers from the *n of 1* problem. Further assessment and comparisons are required should this direction in teaching and learning be considered valuable.

Specific Trial Outcomes

On the basis of the standard Quality of Teaching, comparisons between 2002 and 2003 show that on the criteria "The subject was well taught", 2003 scored 0.5 higher than in 2002.

From the IT and MM-specific survey instrument, it is possible to determine the following:

Student Profile

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>
<i>Number</i>	53	32	83	7
<i>Percentage</i>	62.3%	37.6%	92.2%	7.7%

Percentage Attendance

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Lectures</i>	82.3%	81.8%	82.4%	87.5%	82.6%
<i>Tutorials</i>	87.01%	86.4%	86.5%	87.8%	86.8%

Where Computer Used for Studies

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Home</i>	81.1%	75%	75.9%	85.7%	77.7%
<i>Work</i>	1.8%	3.1%	2.4%	0%	2.2%
<i>University</i>	16.9%	28.1%	20.4%	14.2%	20%

Preferred Operating System

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Windows</i>	98%	93.5%	95%	100%	96.5%
<i>Macintosh</i>	2%	3.2%	2.4%	0%	2.2%
<i>Other(not Linux/Unix)</i>	0%	3.2%	1.2%	0%	1.1%

⁴ The survey instruments were, in accordance with University procedure, administered in-class. While copies of the IT-related survey instrument were provided online for students who did not attend lectures physically, this is likely to have reduced the response rate from this cohort.

Internet Access Type

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Cable Modem</i>	15.3%	18.7%	20%	0%	17.9%
<i>Dial-up Modem</i>	38.4%	56.2%	42.5%	71.4%	43.8%
<i>University Lab</i>	36.5%	21.8%	33.7%	14.2%	31.4%
<i>Work LAN</i>	1.9%	3.1%	1.2%	14.2%	2.2%
<i>Wireless</i>	3.8%	0%	1.2%	0%	2.2%
<i>Public Library</i>	1.9%	0%	1.2%	0%	1.1%
<i>None</i>	1.9%	0%	1.2%	0%	1.1%

Self-Assessed Computer Skill level

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Excellent</i>	17.3%	21.8%	17%	28.7%	17.7%
<i>Good</i>	61.5%	71.8%	67%	57.1%	66.6%
<i>Satisfactory</i>	19.2%	3.1%	12.1%	14.2%	12.2%
<i>Poor</i>	3.8%	3.1%	3.6%	0%	3.3%
<i>None</i>	0%	0%	0%	0%	0%

Online Resources Important in Study

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Strongly Agree</i>	36.7%	31%	32.8%	50%	34.9%
<i>Agree</i>	51%	65.5%	57.8%	50%	56.6%
<i>Neither</i>	8.1%	0%	5.2%	0%	4.8%
<i>Disagree</i>	0%	3.4%	3.1%	0%	1.2%
<i>Strongly Disagree</i>	4%	0%	2.6%	0%	2.4%

Frequency of Visit to the Subject Homepage

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Daily</i>	0%	3.25%	2.4%	0%	2.2%
<i>Weekly</i>	52.8%	37.5%	43.9%	87.5%	47.7%
<i>Fortnightly</i>	22.6%	28.1%	25.6%	12.5%	24.4%
<i>Monthly</i>	9.4%	9.3%	9.7%	0%	8.8%
<i>Rarely</i>	9.4%	21.8%	14.6%	0%	13.3%
<i>Never</i>	5.6%	0%	3.6%	0%	3.3%

Frequency of Visit to the Subject Discussion Board

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Daily</i>	0%	0%	0%	0%	0%
<i>Weekly</i>	11.3%	18.7%	12%	0%	13.3%
<i>Fortnightly</i>	7.5%	6.2%	7.2%	28.5%	8.8%
<i>Monthly</i>	7.5%	3.1%	4.8%	14.2%	5.5%
<i>Rarely</i>	28.3%	43.7%	33.7%	14.2%	32.2%
<i>Never</i>	41.5%	25%	37.3%	14.2%	36.6%
<i>Not aware of this facility</i>	3.7%	3.1%	3.6%	0%	3.3%

Percentage of Students Who Accessed...

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>MP3s</i>	25%	37.5%	25.9%	57.1%	28%
<i>CDs - Library</i>	25%	15.6%	20.9%	14.2%	20.2%
<i>PowerPoint</i>	73.5%	84.3%	78.5%	100%	78.6%
<i>Video</i>	21.5%	13.3%	17.5%	16.6%	17.4%

Percentage of total accessed/downloaded (by those who accessed)...

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>MP3s (of 16)</i>	41.3%	34.4%	38.8%	34.4%	38.8%
<i>CDs (of 16)</i>	20.6%	20%	21.3%	6.3%	20%
<i>PowerPoint (14)</i>	65.7%	60.7%	66.4%	46.4%	65%
<i>Video (4)</i>	47.5%	30%	42.5%	25%	42%

Preferred Format for Online PowerPoint...

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Adobe PDF</i>	43.2%	56.5%	8.7%	33.3%	48.4%
<i>PPT (native)</i>	45.9%	34.7%	40.3%	50%	42.1%
<i>Both / either</i>	10.8%	8.6%	10.8%	16.6%	9.3%

Average Quality of...*

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>Subject Homepage</i>	4.3	4.4	4.3	4.5	4.3
<i>Compared to Other Subjects</i>	4.1	4.1	4	4.8	4.1
<i>In-class PowerPoint</i>	4.2	4.3	4.2	4.6	4.2

* Based on a five point scale (see attachment)

Visual Aid Preferences

	<i>Women</i>	<i>Men</i>	<i>Full Time</i>	<i>Part Time</i>	Average
<i>PowerPoint</i>	79.2%	78.1%	80%	71.4%	80%
<i>Paper</i>	50.9%	43.7%	48.7%	28.5%	47.7%
<i>Nothing</i>	1.1%	0%	1.1%	0%	1.1%
<i>OHPs</i>	20.7%	12.5%	14.6%	42.8%	16.6%
<i>Whiteboard</i>	9.4%	9.3%	8.5%	14.2%	8.8%
<i>Combination*</i>	46.8%	50.9%	48.7%	42.8%	48.8%

* selected more than one visual aid preference

Discussion

A number of points can be made from the survey results:

- **Some Certainties:** Students –
 - Are overwhelmingly committed to the Windows Operating System platform,
 - Tend to undertake their University work using a computer located in their home, and

- Display very competent computer skills and a willingness and desire to incorporate online materials in their learning experience.
- **Some Uncertainties:**
 - *Survey Limitations:* The cohort studied for this subject was largely full-time students, and limited statistical value can be drawn from part-time student results.
 - *Internet Access and Use Varies:* While there is a sizeable cohort of students with high speed Internet access (Cable or similar), the most common means of student access to online content is via a dial-up (56k) modem which places significant barriers to high quality (large file size) digital content distribution. The access speed of the Internet is a key determinant in the level of use of digital content. Small files (such as PowerPoint slides) are more commonly accessed than large files (MP3s and video), almost in direct proportion to Internet access speeds. A significant minority of students access the Internet predominantly via University computer labs – validating investment in these resources and necessitating these resources be maintained for access and equity reasons.
 - *Net is Preferred:* while the use of MP3 files and access to audio CDs were similar (with the exception of part-time students who made significant use of online MP3s), the additional bandwidth costs associated with MP3 file access were more acceptable to students than the physical requirement to visit the library to access the audio CDs.
- **Students Selectively Use Online Resources:** In accessing online resources, even those with low barriers to use (PDF and PPT), students selectively use these sources, largely to review material missed and to support their learning needs and clarify their understanding of course content, thus:
 - *Choice is Important:* Online and digital content can't be provided instead of offline teaching, and students use a range of file formats where they have the option to do so. The creation of digital content, and conversion to a range of available formats, will therefore increase the time allocation required to provide student options.
 - *Static Resources are Used More than Interactive Ones:* Static webpages are viewed far more frequently and interactive elements, such as the discussion board. Significant effort needs to be invested in the discussion board by teaching staff to generate activity from students
- **In-class MultiMedia Should Be Mixed, But the PowerPoint is Supreme:** Students, when given options over which graphical support should be used in lectures vastly prefer PowerPoint presentations over any other form. Interestingly and possibly related to declining student living conditions, where students indicate they prefer a mix of visual teaching supports, the distribution of paper summaries is the second preference of most students.

Barriers and Enablers

To add to the points raised in *Technical Limitations, Problems, and Failures* (above) in a generalisable sense, barriers and enablers to similar implementations and trials are provided

Barriers encountered are:

- **Time:** The creation of MultiMedia teaching resources requires time, both in terms of the actual tasks needed to be undertaken to produce the material, and the acquisition of the skills required to undertake the tasks. In addition, digitisation requires a fairly large degree of "processing time" – the conversion of files between formats and different levels of quality⁵, dumping video tape data into the computer and processing it for web presentation were particularly time consuming. In addition, where resources were not "to hand" (part of the staff members' desktop environment) additional time was required to book, borrow, and return equipment.
- **Hardware:** The pilot required a specific piece of hardware (a portable computer) which is not generally provided to staff because of the differences in cost (a desktop of similar capabilities being less than half the cost of a portable computer).
- **Access to digital media online:** While elements of the use of MM were easily facilitate via existing software (audio recording) the creation of digital video was at times complex, difficult and time consuming. For example, presenting a small piece of streaming video from an online resource required:
 - The source be located (*i.e.* the `http` address)
 - The actual location of the resource be determined (*i.e.* the `rtp` address)
 - An offline browser or download agent be used to "grab" the stream
 - The streaming video file be converted into a format that is compatible with PowerPoint (*i.e.* `rm` to `avi`)
 - The video file be edited down in line in appropriate use regulations, and
 - The file then be embedded in to the slide.
- **Access to digital media offline:** there are limited digital resources located within the University of Melbourne at present to allow staff to develop MultiMedia presentations quickly and easily from "at hand" sources.

Enablers encountered are:

- The capabilities of computer hardware make the application of IT and MM in teaching far easier than in the past
- Consumer-focused software design makes the creation and editing of video and audio files far easier and more reliable than previously. For example, while Windows Movie Maker 2 has a key limitation (only supporting one file format) it is remarkably simple to use (similarly for the Nero audio-CD creation software and Wave Editor)
- Students are increasingly comfortable with using the web and IT as part of their studies, they display high levels of IT skill and are willing to use online resources at the direction of their lecturer
- Some of the specialised technology used in this pilot has moved in recent years from being additions that staff had to purchase themselves to standard Faculty resources

⁵ For example, to create the audio CDs lectures were initially stored as MP3 files with high quality characterises (80 kBit, 44100 hz, stereo) for burning to CD (a 30 megabyte file), but then re-compressed to a lower quality (32 kBit, 33100 hz, mono) to keep file sizes low for publishing online.

Overall

In review, it appears that the pilot application of IT and MM was successful in general terms. As the technology was not used as a substitution for traditional teaching, it is impossible to determine if IT and MM is better than traditional teaching methods (this is beyond this scope of the report), however, it appears that:

- There is a small, but significant cohort of students that make use of digital recordings and copies of course material in their studies if given the opportunity to do so. In all likelihood, this cohort will increase in size over time. As the technology was used to facilitate alternative means to access existing (offline) course content, the trial had benefits in terms of:
 - Allowing students easier means to review material covered in lectures, and
 - Significant benefits in terms of *access and equity* for students who had difficulties in attending lectures physically, either because of work commitment, family responsibilities, or timetabling problems with other subjects⁶
- Student access to high-bandwidth Internet access is limited, and therefore activities that require large downloads and fast access speeds can only be effectively used as an adjunct to traditional teaching methods
- Some aspects of IT use in teaching are not excessively demanding on staff for the benefits provided (especially the creation of MP3s and audio CDs)
- Some forms of MultiMedia teaching support (OHPs, audio cassettes) may have reached the end of their utility – both in terms of their limited functionality, but also in terms of student preferences

However, in keeping with the adage that often the last 10% improvement requires 100% additional effort, the trial showed that:

- The creation of video material is difficult to justify in terms of the time required, when compared with other "active" learning forms, such as the use of whiteboard-oriented learning discussions

Given these findings, it is recommended that:

- The use of lecture MP3s and audio CDs continue in future years
- The university consider improvements to lecture theatres to allow for the automated capture of lectures digitally⁷, and
- Some consideration be given to the problems associated with digital media (video) sources.

⁶ There is, however, a negative element to this flexibility. As this subject was one of the few that offered these alternative access arrangements, where students were confronted with clashes in timetabling, 166-022 was the obvious choice of a subject for them not to attend. As face-to-face lecturing is still considered by the lecturer as a better means of teaching, this resulted in a benefit for the other (less innovative) subject at the expense of this course, an unpleasant paradox in terms of benefits received for the lecturer (student learning outcomes) for the investment of time required. In addition – in given the option to attend another lecture and "catch-up" with recorded course material for 166-022 – it was not demonstrable that all students in this situation did so in a timeframe that allowed their consumption of lecture material to be integrated into their tutorial attendance. Clearly, this reflects the personal diligence of the student, but is an outcome to be considered in the assessment of these innovations.

⁷ Rather than necessitate that staff who wish to use MP3 files locate funding sources for portable computers given the cost differential between equipping all staff with these machines and the cost of upgrading a limited number of lecturing facilities.

Technical Information

In keeping with the modest resources available for IT and MM in the Faculty of Arts, the technical resources employed in the trial were:

- Hardware:
 - IBM-compatible notebook computer running a Pentium 4 processor and Windows XP operating system
 - Basic microphone
 - Sony Digital Video Camera (TRV900) that was borrowed periodically from the Arts IT unit, and
 - A flatbed scanner accessible in a shared staff IT facility in the John-Medley building
- Software (* indicate free or standard operating environment):
 - * Windows Office software package (Word, PowerPoint)
 - Adobe Acrobat
 - * Macromedia DreamWeaver HTML editor
 - Nero Burning Rom CD burning package, including
 - NeroWave Editor audio recording software (with additional MP3 conversion licence)
 - * Windows Movie Maker 2 video capture and editing software
 - Boilersoft's RM Converter (conversion from RealNetworks RM file format to AVI format for video streams)
 - * NetTransport (for downloading streaming files to local drives)
 - * An FTP file transfer program (CoffeeCup's FreeFTP), and
 - * The University of Melbourne's Webrast FTP directory management system, including:
 - The Webcrossing discussion forum management package

The acquisition of non-standard hardware and software was acquired through research funding, and therefore the use of these resources was a spin off benefit from academic activities undertaken beyond teaching requirements.

Attachment: Survey Instrument

**University of Melbourne, Department of Political Science
166 022 Public Policy Making
Supplementary Subject Evaluation Form – Use of Information Technology in Teaching**

1. *The primary place I use a computer for my studies is:*

- | | |
|---|--|
| <input type="checkbox"/> At home | <input type="checkbox"/> At University (such as a computer laboratory) |
| <input type="checkbox"/> At work | <input type="checkbox"/> Public Library / Internet Café / LAN house |
| <input type="checkbox"/> At some other location | <input type="checkbox"/> I do not use a computer for my studies |

2. *My operating system preference is (the type of computer I use is):*

- | | | |
|------------------------------------|----------------------------------|--------------------------------|
| <input type="checkbox"/> Macintosh | <input type="checkbox"/> Windows | <input type="checkbox"/> Linux |
| <input type="checkbox"/> Unix | <input type="checkbox"/> DOS | <input type="checkbox"/> Other |

3. *My primary access to the Internet is:*

- | | |
|---|---|
| <input type="checkbox"/> University Lab or Library | <input type="checkbox"/> Dial-up Modem |
| <input type="checkbox"/> Cable / ADSL / Satellite | <input type="checkbox"/> Corporate LAN |
| <input type="checkbox"/> Public Library / Internet Café / LAN house | <input type="checkbox"/> Wireless network |
| <input type="checkbox"/> Do not use / access the Internet | <input type="checkbox"/> Unknown |

4. *I would consider my computer skills as:*

- | | | |
|------------------------------------|-------------------------------|---------------------------------------|
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Satisfactory |
| <input type="checkbox"/> Poor | <input type="checkbox"/> None | |

5. *I look at the subject homepage (on webragt)*

- | | | |
|--|---------------------------------|--------------------------------------|
| <input type="checkbox"/> Daily | <input type="checkbox"/> Weekly | <input type="checkbox"/> Fortnightly |
| <input type="checkbox"/> Monthly | <input type="checkbox"/> Rarely | <input type="checkbox"/> Never |
| <input type="checkbox"/> I don't know what this is | | |

6. *I read the subject discussion board (webcrossing):*

- | | | |
|--|---------------------------------|--------------------------------------|
| <input type="checkbox"/> Daily | <input type="checkbox"/> Weekly | <input type="checkbox"/> Fortnightly |
| <input type="checkbox"/> Monthly | <input type="checkbox"/> Rarely | <input type="checkbox"/> Never |
| <input type="checkbox"/> I don't know what this is | | |

7. *Of the 16 lectures stored as MP3 files on the subject homepage how many have you downloaded:*

8. *Of the 16 lectures on CD stored at the ERC library, how many have you listened to:*

9. *Of the 14 lecture PowerPoint files on the subject homepage how many have you downloaded:*

9a. *[if applicable] I downloaded these files as:*

Adobe Acrobat (.pdf)

PowerPoint (.ppt)

10. *Of the 4 guest speaker video files on the subject homepage how many have you downloaded:*

11. *Overall, the quality of the subject homepage is:*

Excellent

Good

Fair

Poor

Don't Know

12. *Overall, the quality of the subject homepage is:*

Much better than those of other subjects

Better than those of other subjects

The same as those of other subjects

Worse than those of other subjects

Much worse than those of other subjects

Don't know

13. *Overall, online resources are useful to me in my studies:*

Strongly Agree

Agree

Nether Agree nor Disagree

Disagree

Strongly Disagree

14. *Overall, the quality of the PowerPoint presentations used in lectures is:*

Excellent

Good

Fair

Poor

Don't Know

15. *For visual aids in lectures, I prefer:*

PowerPoint

Overhead Projector Slides

Handouts (paper)

Lecturer to Write on the White Board

Nothing

A combination (tick those that apply)

16. *What, in terms of Information Technology and Multimedia in class, would you like to see added to the teaching experience:*

17. *General comments on the use of Information Technology and Multimedia in this subject:*



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Author/s:

Chen, Dr Peter John

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