‘Podcasting in Education’,
Notes accompanying conversion
Recorded 07/05/06

Video Conversation available from -
http://www.technolotics.com/education_xvid.avi

Audio Conversation available from –
http://www.technolotics.com/education.mp3

Myth 1: Computers Just Teach How To Compute

Misconception in education:

- Computers = dull grey boxes, teach only how to use computers.
- Poor use of IT resources in past
- misses potential of computer and audio hardware
    - play potential
        - mics editing suites and blogging / cms tools.
    - tools can facilitate interclassroom communication
        - local or international level
    - individualised learning in a collaborative environment

Podcast Production:

- learning becomes active, rather than passive
- 3 primary benefits of education podcasting
    - Communications Technology learning
    - Communications skills and Group work
    - active learning of curriculum
        - production of creative revision presentations
        - consumption of teacher made podcasts
        - social learning aspect

Myth 2: Podcasting has to be expensive

Decreasing cost of equipment, increasing availability of broadband:

- basic level podcasting requires
    - an audio tape-recorder
    - computer with a soundcard
    - an internet connection – even narrowband can be used with difficulty
- while this solution is possible it’s less than ideal

    - obviously quality rising with the equipment and level of training of content producers
- tech spending in education can be wasteful
- computers can be misused - or seen as a panacea

Existing Educational Uses of Technology

Where is it effective?

- use of television, video, cheap printing
    - phenomenally successful Open University
        - 3rd level education to tens of thousands of students
        - many isolated from traditional education
        - disability or family responsibilities
- use of tape recorders and headphones in language laboratories
- radical technology is omnipresent

The Internet in Education:

- need to understand – not fear
- Wikipedia etc
    - Can be inaccurate & misleading
    - Can enable cheating
- Databases and Search Resources
    - Google Scholar, Science Direct, Lexis Nexis, online Encyclopaedia Britannica
    - enable subscribing institutions access to literally millions of peer reviewed research papers, and expert articles
    - rapid cheap access to comprehensive and interconnected research information
- MIT - open course ware initiative
    - publish audio and video recordings of course lectures
    - provide worldwide free access to course materials

Podcasts in Education

- Podcasts are distinct from existing educational multimedia content – in that they are (usually publicly) subscribable
- Already podcasts are being used in Education
- Locally
    - http://www.css.washington.edu/blog/ University of Washington have 21 courses up
    - from Psychology to History
- Publicly
    - Stanford University have announced they will be posting a variety of lectures, speeches and debates to iTunes
        - http://itunes.stanford.edu/

        - http://www.forbes.com/digitalentertainment/2006/01/24/stanford-on-itunes_cx_kdt_06conncampus_0124stanford.html
    - Microprocessor systems 1 (CS3D1) podcast – Dr Michael Brady of TCD's CS department is put is lectures on iTunes
- Academia in the commons - http://thefilter.blogs.com/thefilter/2004/06/academia_as_a_c.html

Podcasting and Child Centred Education

Child Centred Education:
- Implemented in Britain in 1970s
- In class communication as positive
- teacher as a facilitator of learning
    - rather than an imparter of unchallengeable wisdom.
- need is for basic skills to be paired with an acknowledgement of individuals varying abilities and growth curve.

Steiner Schools:
- 'Waldorf Education'
- breaking down the barriers between distinct fields of knowledge.
- Piaget's concepts of assimilation and accommodation
    - allegories and conceptual schemata developed in one area to be mapped onto another superficially unrelated body of knowledge.
- Finkle, Ward and Smith - Geneplore model of creativity
    - remapping of associations in analogical transfer, leading to scientific innovation and intellectual cross pollination.

Pedagogic Value of Podcasting:
- Interactive learning
    - opposite to the conception of technology as mechanistic method of indoctrination of skills for a modern workplace.
- expressive creative aspect, akin to art therapy
- potential to develop confidence and social skill.
- active generative education approach
- http://schoolworks.ict.tippinst.ie/ - 5 day programme to introduce students tot the benefits and fundamentals of web and multimedia development

Technology as liberating:
- 'not the least significant effect of industrialization is that we become mechanised in our minds' T.S. Eliot
- ironically - ICT has developed to the point where it enables the rejection of mechanistic institution bound, modernist, machine learning
- Blogging & Podcasting media revolutions
    - Given voice to multitude of perspectives
    - Interactive folksonomies of knowledge

    - Democratization of Tools of distribution
- Prospect - Enhancing functional education

Side Benefits:
- inclusion of visually impaired students in production activities
- production of coursework content of use to visually impaired and learning disabled students.
    - currently a resource issue in many schools

Podcasting teaches learning

Research findings:
- Johnson and Johnson
    - series of compressive literature reviews
    - students learn best, & most highly motivated
    - when classes
        - less individualist
        - more co-operative
        - where group skills are taught.
- Cognitive Conflict
    - Socratic Method & Piaget
    - Learning occurs through challenging preconceptions with new knowledge
- Interesting content
    - better attended to
    - better remembered
    - interestingness – should arise from the material studied
- Self regulated learners
    - actively seek out knowledge
    - develop proactive learning strategies
    - modulated by domain specific self efficacy beliefs

Podcast production:
- can enhance self efficacy in a wide variety of areas
- learners can proceed at own pace
- immediate feedback
- exciting self regulated learning
- co-operative learning
- teaches variety of skills
    - planning
    - volitional executive skills
    - communication, I.T and group work skills.
- Lectures and presentations in podcast format
    - Cheap to produce
    - Advantage of the cross modal learning = increased rate of recall
    - Can impart curriculum information

        - either in audio or video form
            - directly from teacher
            - through student production of summarized and researched material
    - learning resources created can be shared / traded with other educator world wide at low cost!
    - Creative Commons & Open Source Education
- Podcasting provides
    - motivational tools
    - learning tools
    - teaching opportunities.

Further Reading

Interactive Children, Communicative Teaching. ICT & Classroom Teaching. Cook & Finlayson.

Child Centred Education and its critics. John Darling.

Educating through art. The Steiner School Approach, Agnes Nobel.

Eysenck, W., Keane, M. J. (2002). Cognitive Psychology A Students Handbook. UK: Psychology Press

Policy for open and distance learning. World review of distance education and open learning, volume 4. Ed, Perraton and Lentell. Peraton and moses 'Technology'
