Information Literacy in the Online Age: Responding to the Online Imperative

life-long learning and e-learning: directions & issues in higher education

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Overview

- Global developments
- What is information literacy?
- Special challenges
- eLearning technologies
- eLearner diversity

  **ACTIVITY:** Dealing with learner diversity

- Discipline specific digital literacy

  **ACTIVITY:** Discipline-based case studies

- Education design
- Research & evaluation opportunities
Global developments

The story seems to be the same around the world. This university-based process of diffusion is significant because it has the highest potential for spreading both the knowledge and the habits of CMC. Indeed, contrary to the assumption of social isolation suggested by the image of the ivory tower, universities are major agents of diffusion of social innovation because generation after generation of young people go through them, becoming aware of and accustomed to new ways of thinking, managing, acting, and communicating. As CMC becomes more pervasive in the university system on an international scale, the graduates that will take over companies and institutions in the early twenty-first century will bring with them the message of the new medium into the mainstream of society.

The context: contemporary e-learning environments in higher education

**Strategic priorities**
- Graduate attributes
- Internationalisation
- Experiential learning
- Student-centred learning
- Attributes of Excellent Teaching
- Online teaching and learning

**Corporate technologies**
- LMSs
- Digital object management systems
- Synchronous communication systems
- Streaming technologies
- Gateways & Portals
- eMail

**“New” technologies**
- Weblogs, Wikis, RSS
What is information literacy?
Defining information literacy 1:
Well recognised view

- Effective information seeking
- Informed choice of information sources
- Information evaluation and selection
- Comfort in using range of media to best advantage
- Awareness of bias and reliability
- Effectiveness in transmitting information to others

(Webber & Johnson 2000 cited by Candy 2004, p.86)
Defining information literacy 2: Deakin exemplary characteristics

- Webber & Johnson 2000 plus…

- Interpret & solve problems for beginning professional

- Knowledge of typical problems at initial levels of practice

- Appreciate modes of knowing within field

- Use of technologies appropriate to field

(Deakin Advantage guidelines, p.6)
Defining information literacy 3: Candy view (1994)

- Knowledge major resources 1 field
- **Frame researchable questions** 1 field
- Ability to evaluate & **use** information in range of contexts
- Ability to retrieve information variety of media
- Ability to decode information in variety of forms
- **Critical** evaluation of information
Defining information literacy 4: Relationship to other attributes

- **Information literacy**, as key skill, along with **ICT literacy**...
- And **organisation** and **personal management skills**...
- For **ethical & socially responsible** individual and **collaborative problem solving**...
- Drawing on & contributing to **appropriate knowledge**...
- In the context of **international perspectives & global developments** on the field...
- Characterises **lifelong learning** capacities
Defining information literacy 5: Into lifelong learning

- Confidence in professional development & exploring field
- Learning is dynamic, need to keep developing professional capacities
- Personal responsibility
- Develop capacities for new opportunities
- Self-awareness of learning
- Seek new learning opportunities
Defining information literacy 6:
The big questions?

- **Information literacy: generic or context/discipline specific capacity?**
- **Multiple information literacies?**
  Visual, media, numerical/statistical, musical, film, cultural, ICT
- **Multiple digital information literacies?**
  E-mail, chatgroups, virtual worlds, Web
- **Developmental nature of information literacies?**
  From undergraduate commencing to graduate studies
Special challenges with digital media and online environments

- Sheer amount of information
- Deep vs surface World Wide Web
- Rapidly changing nature of information
- Balancing engagement with traditional & new media forms
- Judging the veracity of information & trustworthiness of knowledge claims
- Creating & responding to digital communications
eLearning technologies

Portals

Learning Management Systems

Synchronous Communication Systems
Deakin Webmail

Click here to log in directly.

- Want to forward your Deakin mail to another email account, such as Hotmail?
- Going on holidays and need to set up a vacation email?
- Like to know more about spam (unsolicited or junk email) and how to stop it?
- Read about the policies regarding email at Deakin University.

Deakin Calendar

Did you know...

Pay and Leave

The Guide - An Information Service

Library

Deakin University Library
Library Catalogue
News from the Library
Library Password Information
Ask the library a question

Quick Search

Address Book

Favourites

Weather

Deakin News

News from the VC - 1 current articles
Select article(s) and click here to move to archived articles
- Three Deakin finalists in Australian Awards for University Teaching
  05/11/2004

General News - 1 current articles
Select article(s) and click here to move to archived articles
- Parking Permits for 2005
  12/11/2004

Staff News - 2 current articles
Select article(s) and click here to move to archived articles
- Strategic Teaching and Learning Grants Scheme 2005
  19/11/2004
- StudyMate software
  19/11/2004

View archived articles
View my submitted articles
Refresh article list
Email administrator(s) about problems or updates pertaining to a current article.
Submit a news article for consideration
Teaching Online

Overview
Description of this course

Using Basic Online
A set of Learning Modules on aspects of setting up and using "Basic Online" in your unit

General Discussion
Use this topic to discuss general issues related to "Basic Online"

Resource Share
Use this topic to share resources on online teaching and learning

Question and Answer
Use this topic for questions and answers about specific issues in this course

Chat
Use this for live chat

Hints and Tips
This is an archive of hints and tips to help you set up and use "Basic Online"

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eLearner diversity
Judy: the contemporary e-learner

- Judy is 17 years old and she will be entering University next year.
- She has her own broadband enabled computer in her bedroom and Personal Communication Device in her purse.
- Judy works 10-15 hours per week mainly on Friday nights and weekends and intends to be a “Full-time Uni student”.
Judy’s information (re)sources…
Personal communication device

- Picture editor
- Sound recorder
- Picture gallery
- Picture phonebook
- Picture wallpaper
- E-mail
- CommuniCorder
- SMS long (Text Messaging)
- Themes display
- QuickShare™
- MMS templates
- Video streaming
- MMS Video
- Handwriting recognition
- EMS (Enhanced Messaging)
- Camera VGA
- Video Clip
- Screensaver
- Viewfinder display
- Predictive text input
- MMS (Multimedia Messaging)
- Camera

- MP3 Audio
- MPEG4 Video
- Content Online
- Games Embedded
- Games Download
- Video player
- Java
- Start-up/Shutdown shows

**Connectivity**
- Bluetooth™ wireless technology
- Sync ML.
- Memory Stick Duo™
- Infrared port
- GPRS
- High Speed Data
- USB support
- RS232 cable support
- Synchronization Apple®
- Synchronization PC
Google generation

“Today’s university students have been dubbed the Google generation. University librarians and faculty are finding that many students researching information for course papers too easily opt for the first citation they can find during a quick internet search using the Google search engine. And, since the internet is so handy, many students never even enter the library during the semester.”

Luckow (2003)
Bat Sound Effects, Bat Sounds, Free Sound Effects, Animals
... Fruit Bats Screaming bats. Bird Sounds Loopable ambient sound effects beds of birds in their natural settings. Cricket Sounds Loopable nature bed...
www.partnersinrhyme.com/sounds/datsounds.shtml - 55k - Cached - Similar pages

Other Animal Sounds
... this chatter. Here is what the echolocation of these same bats sounds like when processed through the Anaball IlBat Detector. Two...
www.naturesongs.com/otheranimals.html - 17k - Cached - Similar pages

ECI's Bat Chat Audiotape
Sound Samples from ECI's Bat Chat Audiotape The echolocation calls of many bat species are beyond the range of human hearing...
www.batcon.org/discover/echo.html - 6k - Cached - Similar pages

Echolocation Calls
... Bat Conservation International, Inc., 2000. Absolutely no rights of distribution by sale or other transfer of ownership or by...
www.batcon.org/discoverbossounds.html - 3k - Cached - Similar pages

Bat sounds
Bat sounds on the internet. Raimund Specht has a collection. At the Batt...conservation trust in the UK; At bat conservation international;...
home.kabofoom.nl/bert/bat/batsounds.htm - 5k - Cached - Similar pages

bat repellors, Bat Repellors, BAT REPELLEARS, sound repellors...
BAT SOUND REPELLER PRODUCT NAME: Bat Sound Repelling Device. ... These sounds may be detectable by people and are in the frequency range clearly heard by bats...
www.bugsspray.com/catalogproductspage1357.html - 7k - Cached - Similar pages

Bat Sounds
... we have there are two ways to make the sound audible: Heterodyning - mixing the sound from the bat with a steady ultrasonic frequency of similar frequency...
www.moonhen.demon.co.uk/bats1.htm - 7k - Cached - Similar pages

Bat Sounds and Human Speech
Auditory scene analysis by echolocation in bats.
... at different directions and distances as the bat flies through a ... MeSH Terms Animals
Chiroptera/physiology Echolocation/physiology Orientation/physiology ...

Neurobiology of echolocation in bats.
... the acoustic information arriving at the bat's ears and the ... MeSH Terms Animals

Thomas, Jeanette A.; Echolocation in Bats and Dolphins
... Echolocation in Bats and Dolphins consists of six sections: mechanisms of echolocation signal production, the anatomy and physiology of signal reception and ...
www.press.chicago.edu/fgi/bin/hits.cgi00/15258 df- 10k - Cached - Similar pages

Barnes & Noble.com - Echolocation in Bats and Dolphins
... More on this Subject. Search for titles on this subject by checking only those that interest you: Nonfiction, Bats, Dolphins Echolocation (Physiology) ...
search.barnesandnoble.com/booksearch/isbnInquiry.asp?isbn=0226795938&itn=81 - 35k - Cached - Similar pages

from Neurobiology of echolocation in bats
File Format: PDFAdobe Acrobat - View as HTML
... Journal of Comparative Physiology A 2003, 189:245-256. 14 ... 15. Moss CF, Sturymke A: Auditory scene analysis by echolocation in bats ...
instruct.cit.cornell.edu/courses/bioph424/reading/moss_sinha_echolocation.pdf - Similar pages

Auditory neuroethology lab member, Cynthia F. Moss
... Moss, CF and Schnitzler, HU, Accuracy of target ranging in echolocating bats: Acoustic information processing. Journal of Comparative Physiology A, 1999, 185 ...
www.bcbs.umd.edu/pryce/batlab/publication.html - 17k - Cached - Similar pages

Auditory Neuroethology
... Moss, CF and Schnitzler, HU, Accuracy of target ranging in echolocating bats: Acoustic information processing. Journal of Comparative Physiology A, 1999, 185 ...
www.bcbs.umd.edu/pryce/batlab/publication.html - 50k - Cached - Similar pages
and on the other hand…

- Bob is a mature age student from a small community in outback Queensland.
- Bob works full time
- He has a poor phone connection and no computer at home
- Bob has minimal computer skills
- Nearest reliable internet connection is 200 km away in “local” library that is open from 10:00-4:00 Mon-Fri
Challenge

- How do we provide information resources and information literacy equitably to Judy and Bob?
- What are minimum “technology requirements” for a student?
Discipline specific digital literacy?
Digital literacy for life-long learning in disciplines: Wholly online case challenges

- Case 1: Developing scientific methodology ‘literacy’ in **sciences**
- Case 2: Developing critical information literacy skills in the **health sciences**
- Case 3: Developing digital media ‘literacy’ in **political leadership**
- Case 4: Dealing with sensitive knowledge & digital materials in **sociology**
- Case 5: Analytical tools for developing media & communication ‘literacy’ in **media and communication**
Think about these questions...

- What does information literacy mean in each case?
- How is this tied to desired learning...seeing things from new perspectives?
- What could be done to support the development of such literacies?
- What technologies might be required to support the learning experiences?
- How would these cases contribute to the overall development of lifelong learning capacities?
Case 1: Science Skills in Context

This unit deals with scientific processes and skills:

- Scientific measurements
- Sourcing scientific information
- Scientific research methods
- Hypothesis testing
- Statistical analysis and experimental design
- Scientific literature
- Laboratory report writing
- Information technology bioinformatics
Case 2: Health Information and Data

- Using online resources to search for, retrieve and evaluate a range of health information and data.
- The emphasis of this unit is the comprehension and critical appraisal of health information.
- It is important for health students and practitioners to be able to distinguish valid, well-researched health claims from poorly researched (or not researched at all), spurious health claims.
- This unit introduces sources of health literature, different methods and types of research, evaluating research, how research findings are reported and interpreted and understanding research statistics.
Case 3:
Digital media in political leadership

- **Broad curriculum** supported by broad range of resources in digital form
- **Undertaking assignments** and using digitised readings & audio-visual programs
- **Critical engagement** with offline & online resources – making sense of political leadership through concept of moral capital
Case 4:
Sex, Crime & Justice in Electronic Society

- The online environment is both the content and the medium of delivery in this unit.

- Sensitivity of topics and digital materials – How do we deal with the topics such as:
  - Internet Pornography
  - Internet Child Pornography

- Asking ‘Why?’ in engaging with popular broadcast media, digital & online communicative environments
Case 5: Advertising – Designing Desires

Communication in this unit is *making meaning of a range of symbolic forms* (‘texts’). Reading texts is always done in a *context*.

- Creation, selection, storage and retrieval and use of digitised and digital advertisements
- Use of set of **analytical tools** and **themes** to ‘work’ the provided materials – making connections
- Requires a digital object management solution for multimedia advertising objects
Think about these questions…

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Education design guidance

- Recognise when subject’s subject is about ICT
- Mapping courses & units
- Mapping unit learning resources
- Model appropriate engagement with resources & online communication
  - Criteria for judging value
  - Search tools & search strategy
- Design formal assessment tasks eliciting desired forms of learning from digital & online
Research & evaluation opportunities

- Conceptions, approaches & learning outcomes in digital and online environments
- Development of critical digital & information literacies in key disciplines & domains
- Progressive development of literacies through key levels of study
- Relationship of information literacy to other attributes in developing student as person/professional
References

- Holt, D.M., Barton, S. M. & Barton, G. (2004). From the comforts of print to the possibilities of digital media: Leading the way in teaching political leadership in a Faculty of Arts, ASCILITE paper, Perth.
- The Deakin Advantage: Guidelines for developing the attributes of a Deakin graduate.