

Australian Journal of Educational Technology

Volume 19, Number 1, Autumn 2003 ISSN 0814-673X

Contents

Editorial iii-vii
Exploring critical aspects of information technologies integration in Singapore schools
Online learning: Implications for effective learning for higher education in South Africa
Design principles for authoring dynamic, reusable learning objects 46-56 <i>Tom Boyle</i>
Patterns of engagement in authentic online learning environments 59-7 Jan Herrington, Ron Oliver and Thomas C. Reeves
It takes more than metadata and stories of success: Understanding barrier to reuse of computer facilitated learning resources
Has student learning been improved by the use of online and offline formative assessment opportunities?
Evaluating a communicative model for web mediated collaborative learning and design
Teaching languages online: Deconstructing the myths 118-13 <i>Uschi Felix</i>

 $\hbox{@ }2003$ All rights reserved. No part of this journal may be reprinted or reproduced without permission from the publishers.

The *Australian Journal of Educational Technology* is a refereed research journal published three times per year jointly by the Australasian Society for Computers in Learning in Tertiary Education and the Australian Society for Educational Technology. For details on submission of manuscripts, subscriptions and access to the AJET online archives, please see:

http://www.ascilite.org.au/ajet/

or for manuscript submission contact the Editor, Associate Professor Catherine McLoughlin, School of Education (ACT), Australian Catholic University, PO Box 256, Dickson ACT 2602, Australia. Email: C.McLoughlin@signadou.acu.edu.au, Tel: +61 2 6209 1100 Fax +61 2 6209 1185, or for subscriptions contact the Production Editor, Dr Roger Atkinson, 5/202 Coode Street, Como WA 6152, Australia. Email: rjatkinson@bigpond.com, Tel: +61 8 9367 1133. Members of ASET, ASCILITE and ISPI (Vic) receive AJET as a part of their membership benefits.

AJET is managed by an Editorial Board nominated by ASCILITE and ASET. The 2003 Editorial Board comprises:

Catherine McLoughlin (Editor), Australian Catholic University Roger Atkinson (Production Editor) Trish Andrews, University of Queensland Carolyn Dowling, Australian Catholic University Mike Keppell, University of Melbourne Lori Lockyer, University of Wollongong Mary Jane Mahony, University of Sydney Elizabeth Stacey, Deakin University

Australasian Society for Computers	Australian Society for
in Learning in Tertiary Education	Educational Technology
http://www.ascilite.org.au/	

Copyright in individual articles contained in AJET is vested in each of the authors in respect of his or her contributions. Copyright in AJET is vested in ASET (1985-86), AJET Publications (1987-1996), and ASET and ASCILITE (from 1997). Desktop publishing and HTML by Roger Atkinson. Printed and bound by Dedline Print (formerly The Printing Place), Myaree WA 6154, Australia.

Supporting Societies

Supporting societies obtain bulk supplies of printed copies of AJET at the same cost as applicable for ASCILITE and ASET members, and access to AJET online articles during the period of restricted access for each issue. Inquiries about supporting society status may be directed to the Production Editor.



ISPI Melbourne Chapter http://www.ispimelb.org.au/

Editorial

Dear Readers,

Five of the eight articles in AJET's first issue for 2003 have been drawn from ASCILITE's 2002 Conference at Unitec in Auckland, New Zealand, with the theme *Winds of Change in the Sea of Learning* (ASCILITE, 2002). At the Conference's closing session, the Committee nominated five Oustanding Paper Awards. As with previous ASCILITE Conferences, these articles now receive additional recognition through publication in AJET, in most cases with only minor revisions. As with previous recipients, the Awards authors provide excellent examples of current thinking and research effort in the development and application of educational technologies in higher education.

The issue also includes two articles from researchers in Singapore and South Africa, contributing very well towards AJET's growing international reach. The first of these is *Exploring critical aspects of information technologies integration in Singaporean Schools* by Lim Cher Ping and co-workers at Nanyang Technological University and Singapore's Ministry of Education. The authors identify, describe and interpret the sociocultural setting elements that promote or inhibit the successful integration of IT in Singaporean schools, and construct models of IT integration based on the patterns they found. The article provides insights into how schools are acquiring and integrating IT in their curriculum so as to develop a culture of thinking, lifelong learning and social responsibility and how researchers are being prepared for these challenges.

Marlene Damoense's article, Online learning: Implications for effective learning for higher education in South Africa is an interesting case study in the South African higher education context, that explores the shift from traditional learning to online learning practices. It discusses the use of technology, particularly the Internet, to support and enhance effective learning based on the principles of engagement theory. The author advocates improvement in information literacy skills and pedagogy to enable tertiary educators to better integrate ICTs in their teaching.

Turning to the group of Outstanding Paper Awards, Tom Boyle in *Design principles for authoring dynamic, reusable learning objects* proposes several authoring principles for reuse and repurposing of learning objects. Drawing on a synthesis of strategies from pedagogy and software engineering, Boyle argues a case for the interoperability of learning objects based on the principles of cohesion, de-coupling and pedagogical richness. The author also advocates the development and exchange of learning

objects within learning communities, so that further refinement and evaluation can proceed.

Jan Herrington, Ron Oliver and Tom Reeves, in *Patterns of engagement in authentic online learning environments*, examine evidence on the successes and problems of authentic learning environments. They discuss patterns of engagement that have emerged from research on authentic learning tasks, in particular, the initial reluctance to willingly immerse in learning scenarios that some students experience, and the need for the suspension of disbelief before engaging in the task. The authors propose ten characteristics of authentic activities as a basis for in depth investigation.

Returning to the topic of reusable learning objects, the article *It takes more than metadata and stories of success: Understanding barriers to reuse of computer facilitated learning resources* provides additional perspectives. Carmel McNaught and co-workers examine the issues associated with academics sharing and reusing existing electronic resources, using examples to elucidate the challenges to learning object reuse and signalling directions for future work. The authors explain that while several databases of computer facilitated learning resources exist, they do not appear to have increased the uptake and reuse of electronic media content. The solution proposed by the authors is based on a number of principles, ie: to apply effective educational design in combining a number of existing resources, and to develop policies and processes that support the recognition and cultivation of a culture of collaborative work environments.

Mary Peat and Sue Franklin present *Has student learning been improved by the use of online and offline formative assessment opportunities?* The authors as experienced practitioners in higher education have supported student learning by providing both offline and online forms of assessment. Their article evaluates the use of these assessment resources and possible links with academic performance, and reports on students' perceived usefulness of resources. The study concludes that while there is no direct correlation between use of resources and scores in assessment tasks, students may have different reasons for not accessing resources, and that these need to be investigated.

The final article in the group of ASCILITE Outstanding Paper Awards is by Leslie Treleaven, *Evaluating a communicative model for web mediated collaborative learning and design*. Leslie investigates the usefulness of a communicative model of collaborative learning (CMCL) in analysing the linguistic interaction between students so that their learning can be evaluated. The CMCL is based on Habermas' model of communicative learning and embodies the assumptions that collaborative work is enabled and mediated by language, that it involves social interaction, and that

communication processes are also mechanisms for social engagement and knowledge co-creation. Thus the CMCL also provides a framework for analysing the interactions that occur online. The article provides insights into how this form of analysis applies to the type of collaborative learning in web mediated learning, and how co-creation of knowledge occurs in virtual discussion spaces.

In her article *Teaching languages online: Deconstructing the myths*, Uschi Felix addresses some of the key questions asked by teachers considering online delivery for language teaching, *Why would we want to teach online? What are the constraints?* and *How can we do it well?* The author remains convinced, despite the evidence of 'no significant difference', that the use of online technology is supportive of good pedagogy. For example, current online teaching and learning approaches share three characteristics with the originators of communicative approaches to language teaching - namely, incorporation of tasks that are contextualised, authentic, and meaningful to the student. In connection with Uschi's article, we record with gratitude our very warm appreciation for the kind permission granted by Michael Leunig and his publisher, Penguin Australia, to reproduce four Leunig cartoons (Leunig, 1995), that so aptly illustrate the main points.

Catherine McLoughlin *Editor*

The prosperity of AJET [1]

At some time during Thursday 6 February 2003, the hit counter on AJET's home page passed 100000. Unfortunately, no ceremony or reward is possible for the unknown person (or web crawler) who ticked the count over into 6 digits. An unfortunate lack of recognition, because each year we see AJET's "prosperity" more and more tightly linked with our commitment to "free to the Internet" or "open access publishing" (Willinsky, 2002; MacColl & Pinfield, 2002).

There's no doubt that AJET is "prospering". Since mid-1997, when ASCILITE and ASET assumed responsibility for publishing AJET, the journal has enjoyed a period of sustained growth. AJET increased from 2 issues, 164 pages and 10 articles in 1997 to 3 issues, 410 pages and 23 articles in 2002, without an increase in subscription rates. All 18 volumes of AJET are available online, with full text free to the Internet (in the case of each new issue, subscriber and society member only access is applied for three months).

How can we assess the significance of this? One avenue for inquiry is to compare our publishing record with that attained by kindred societies. In our case, comparisons with HERDSA (Higher Education Research and

Development Society of Australasia) and ODLAA (Open and Distance Learning Association of Australia) are illustrative. Their journals, HERD (*Higher Education Research and Development*) and DE (*Distance Education*), overlap to some extent with AJET in topics, readers, authors and reviewers, but are quite different in publishing arrangements, having been outsourced to Carfax Publishing in the Taylor & Francis Group - HERD in 1997, DE in 2002 (Atkinson, 2001).

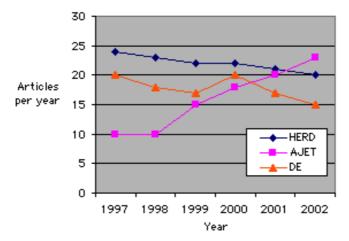


Figure 1: Numbers of articles in HERD, AJET and DE, years 1997-2002

Figures 1 and 2, excerpted from a study in progress, show that AJET has increased its number of articles per year and held subscriptions constant, whilst HERD and DE, though in a static position with numbers of articles, are increasing their subscription rates quite markedly (data sources: print versions of each journal). Whilst the price constancy for AJET (Figure 2) is unusual, the increases for HERD and DE are consistent with a well known pattern for scholarly journals:

... Price increases for a serial subscription for a research library have averaged 9.5% a year over the past decade. Despite infusions of funds into serials budgets, libraries have been unable to keep pace with the steep price increases. As a result, libraries have had no choice but to cancel significant numbers of journal subscriptions and to reduce monographic purchasing, decimating their collections. Many believe the exploitative practices of a few large commercial companies operating in a near monopolistic market are the fundamental cause of high prices (Case, 1998)

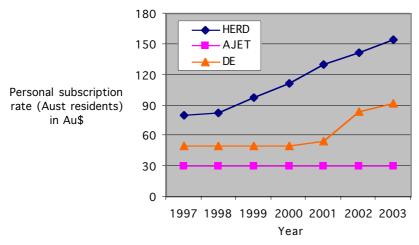


Figure 2: Personal subscription rates (for Australian residents), For HERD, AJET and DE, years 1997-2003

Whilst considerable further detail is required for full analysis of this and other data, Figures 1 and 2 do illustrate one key feature of AJET's approach. We seek to expand reader access to AJET. One expression of this intention is that we will not increase subscription rates until required to do so by rising expenses for printing, postage and website hosting. Another expression of intent, perhaps the most important of all in the quest for open access (Willinsky, 2002), is full online availability free to the Internet. In sharp contrast to AJET, HERD and DE's online access features *no articles free to the Internet*, access limited to institutional subscribers only, and access available only for very recent issues (from 2000 for HERD and from 2002 for DE). Through AJET, ASCILITE and ASET are developing a prominent, leading contribution towards the ideals expressed in the concept of open access publishing by professional societies (Willinsky, 2002).

Indexing AJET

Although we haven't achieved any progress in having AJET indexed in ERIC's *Current Index to Journals in Education* (McLoughlin and Atkinson, 2002), in December 2002 the Taylor & Francis group offered indexing of AJET titles and abstracts in their publication *Educational Research Abstracts Online*, which we are happy to accept and we thank T&F for their initiative. This offer is especially significant because T&F, along with other very large scale publishers of scholarly works, now offer keyword searching across all of their journals, and are now extending that coverage to include non-T&F journals.

Roger Atkinson *AJET Production Editor* http://www.ascilite.org.au/ajet/

Notes

1. An earlier version of the section "The prosperity of AJET" was published in *ASCILITE Newsletter*, No.4, 2002. http://www.ascilite.org.au/newsletter/2.04/

References

- ASCILITE (2002). Winds of Change in the Sea of Learning. 19th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education. Unitec, Auckland, 8-11 Dec 2002. http://www.unitec.ac.nz/ascilite/
- Atkinson, R. (2001). Editorial. *Australian Journal of Educational Technology,* 17(3), iiivi. http://www.ascilite.org.au/ajet/ajet17/editorial17-3.html
- Case, M. M. (1998). Views of the current marketplace for scholarly journals. *ARL Newsletter*, 200(October). http://www.arl.org/newsltr/200/intro.html
- HERDSA. http://www.herdsa.org.au/
- Leunig, M. (1995). You and Me. Melbourne: Penguin Books.
- ODLAA. http://www.odlaa.org/
- MacColl, J. and Pinfield, S. (2002). Climbing the Scholarly Publishing Mountain with SHERPA. *Ariadne*, 33. http://www.ariadne.ac.uk/issue33/sherpa/
- McLoughlin, C. and Atkinson, R. (2002). Editorial. *Australian Journal of Educational Technology*, 18(3), iii-x. http://www.ascilite.org.au/ajet/ajet18/editorial18-3.html
- Taylor & Francis Group. http://www.tandf.co.uk/ (includes Carfax, E& F N Spon and Routledge)
- Willinsky, J. (2002). Scholarly associations and the economic viability of open access publishing. *Public Knowledge Project, Working Papers*, DRAFT July 29. http://research2.csci.educ.ubc.ca/workingpapers/association.pdf