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Book Review – Reusing Online Resources: A sustainable approach to e-learning

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Editor: Littlejohn, A. (2003) *Reusing Online Resources: A sustainable approach to e-learning.* hardcover. £22.50. Kogan Page: London. ISBN: 0 7494 3950 5

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"Reuse" and "recycle" of existing teaching-learning resources have always been a common practice in the world of education. However, it had never been in the centre-stage of educational debate as it is in the recent past. The reasons for educational material reuse are: the need to provide greater access to quality education, shrinking financial resources, pressure to provide education in cost-effective ways, and the overall impact of the information and communication technology (ICT) in educational practices. In fact, with the advent of ICT it has become easier to store, retrieve, share, and reuse educational materials. Though for individual teachers, the practice of preparing learning materials (also called "learning objects") and their reuse have been simpler, the book under review covers a wide-range of complex issues in reuse of online resources for sustainable and cost-effective teaching from both institutional and global knowledge economy contexts.

Divided into four parts, the book covers eighteen chapters excluding the first one by the editor, Alison Littlejohn, which puts the book in perspective and identifies seven questions that are focus of discussion in the other chapters, all of which are written by eminent theoreticians and practitioners of the theory and practice of 'learning objects'. The questions are:

1. How can digital resources be used to support learning?

2. How can resources be reused within a range of educational models?

3. Why is standardization necessary?

4. Is there an optimum size for reusable resource?

5. Should resources retain contextual information?

6. How are educational institutions likely to change?

7. Is global sharing of resources a possibility?

Chapters 2 – 19 of the book covers discussion that attempts to answer one or more of these questions. In Part 1, "Vision and theoretical perspectives," there are five chapters with an introduction by Mayes. In Chapter 2, Duncan introduces the concept of "granularization" of learning objects, but recognizes the difficulty to find an agreement on describing granularity and its levels. Rahek and Mason in Chapter 3 provide a definitive path for use of learning objects, while Campbell in Chapter 4 discusses the benefits in engaging with the learning object economy. In Chapter 5, Koper focuses on the problems with reuse of educational materials and provides an integrative framework for reuse. In Chapter 6, entitled "Models for open learning," describes the pedagogical approaches undertaken in the two innovative projects of MIT – The Open Knowledge Initiative (http://web.mit.edu/oki) and The Open Courseware Project (http://ocw.mit.edu).

Part 2, "Design perspectives," is comprised of four chapters with an introduction by Wiley. In Chapter 7, Laurillard and McAndrew propose the use of conversational framework in designing generic learning activities that could be reused. To illustrate the concept, the authors provide the example of SoURCE project (http://www.source.ac.uk).

Oliver and McLoughin in Chapter 8 present a range of reusable online designs that use effective pedagogy. Emphasizing the constructivist approach, the authors urge optimizing the use of the multimedia capabilities of the Web. "Designing for reuse and versioning" is the title of the next chapter by Thorpe, Kubiak, and Thorpe in which the authors describe course development methods that facilitate subsequent reuse and versioning. Based on their experience in the UKOU project "CoUrse Re-use and VErsioning" (http://iet.open.ac.uk/curve), the authors illustrate their ideas of reuse and versioning through the case studies. In Chapter 10, Jutta Treviranus and Judy Brewer focus on the important issue of designing accessible learning content for people with disability. It explores the architecture and authoring tools needed to create accessible learning objects, the use of standards, and institutional commitment needed for accessible electronic learning.

Part 3, "Resource perspectives," has five chapters with an introduction by Stiles. In Chapter 11, Duncan and Ekmekcioglu discuss the nature of digital learning resources, and the way they need to be stored and organized to retrieve and use at the time of need. In the next chapter, Olivier and Liber discuss why specifications and standards are important for reuse of resources. For any learning resource to be reused, it is essential that an agreed interoperable standard is adopted. Also, the use of metadata tags to locate the resource is emphasized in this chapter. In Chapter 13, Conole, Evans and Sims, discuss the reuse of digital images in teaching and learning. The authors identify the metadata information required to locate images. In the next chapter, Bull and Dalziel focus on the development and implementation of question banks as reusable learning objects. Within the implementation issues, the authors discuss copyrights, intellectual property, and digital rights management issues that are essential to be addressed in managing question banks.

Part 4, "Strategic perspectives," has four chapters with an introduction by Salmon. In Chapter 16, McNaught discusses the complex issues that influence sharing of learning objects in educational institutions. McNaught emphasizes that the change process in the institutions should be collegial, and only then sharing will be acceptable. In the next chapter, Littlejohn, Jung, and Broumley compare the issues of re-use in two different educational contexts – in a school in Korea, and in a college in the UK. This chapter highlighted that time of searching for learning objects as a critical factor in reuse; tutors need reward and encouragement for reuse of materials; and contextualized materials will only help teachers to reuse materials. In Chapter 18, Littlejohn describes an

incremental approach to staff development in order to facilitate reuse of learning resources, while in the last chapter Harris and Higgison describe e-workshop as a reusable model for staff development. The authors recommend development of communities of practice as a model for cooperative staff development.

Having read the book from the editor's perspective outlined in Chapter 1, I would like to emphasize that this is a book to be seriously read, analysed, and reflected upon. This book has the potential to influence our educational practice. As such, the book received much attention through the special issue of the online journal – *Journal of Interactive Media in Education* (http://www-jime.open.ac.uk/2003/1/), in which many experts around the world commented on the chapters, and generated discussion. With my academic background in Library and Information Science and current engagement in developing staff for distance education, I am, however, extremely excited with the concept of "learning objects." At the same time, I am also skeptical of a global knowledge repository to emerge in the near future. Though Littlejohn has been successful in giving us a compendium of wealth of information about the emerging areas of reusable learning objects, there are issues that need to be further discussed, standardized, and implemented in practice. For example, the definition of granularity is yet to have a standard meaning. The utopian idea of a global learning object repository is overwhelming. In reality, it is extremely difficult to have context-free learning objects, and, at the same time, convince educational institutions to share their learning object database with others without receiving economic benefit. Nevertheless, the "learning object strategy" would be beneficial to individual institutions, if planned, designed, and implemented properly. The book also provides examples of cooperative efforts in Learning Object repository development; there is thus scope beyond my personal skepticism of "Global Repository." I would like to emphasize, however, that even if a global learning repository is feasible and emerges in the future, it is essential to have improved classification-based organization of learning objects that enables quick retrieval, quick compilation, and packaging to develop useful courses and programmes. Present classification practices are limited and search strategies depend on the free use of keywords in metadata tags. Therefore, controlled vocabulary for describing data about the learning objects is essential.

This book is a "must read" for every educational technologist looking to developing educational content, either for sharing or selling!

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