

Symposium – submission to ALT-C 2004

1. Title

Developing the next generation of re-usable learning objects

2. Name of presenter(s), contact details.

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3. Category (symposium)

4. Conference theme(s) addressed.

New technologies for learning (media & communications); tools and strategies for effective use of technologies; pedagogy and the social implications of the new forms of communication; organisational, strategic and management issues; evidence-based research and evaluation; accessibility and inclusion

5. Up to 5 key words or phrases that which will help reviewers and people

considering attending the session understand its focus.

reusable learning objects, learning design, community of practice,

6. Objectives/intended outcomes and activities for participants.

Participants will:

understand the cultural, political and technical issues affecting reusability, content creation, sharing and evaluation

be aware of the tools, templates, methods and processes that enable this form of collaboration

gain an overview of an example of collaborative practice through presentations of three case studies

contribute to the discussion on the implications of this approach for UK HE

7. Abstract

Developing the next generation of re-usable learning objects

This symposium will discuss three central issues for the development of the next generation of re-usable learning objects (RLOs). These issues are all concerned with the development of learning objects, as opposed to their packaging and description. There has been considerable international work in the development of specifications and standards for learning object packaging and descriptive metadata, driven by bodies such as IMS, ADL and IEEE. These specification and standards provide a basis for the 'knowledge engineering' of learning objects, i.e. how RLOs can be packaged, stored, retrieved and re-used across different delivery systems (such as different VLEs). This knowledge engineering perspective needs to be complemented by developing methods and techniques to ensure pedagogical effectiveness in the design and development of learning objects. This symposium will discuss three significant themes in developing pedagogically effective learning RLOs.

The concept of RLOs ultimately works because there is a community that shares in the reuse of

common resources. This first theme takes the community of practice one stage further to emphasize the collaborative development of RLOs. The symposium will outline and discuss the system developed by UCeL (Universities Collaboration in eLearning). UCeL has established itself as an effective community of practice, involving several universities who are collaboratively producing and sharing reusable learning objects, mainly in the area of health education. This involves the close collaboration of teams of tutors and multimedia developers located in different institutions. The symposium will outline the progress to date, and open for discussion how this collaborative model for developing RLOs can be further developed and scaled up.

A second key theme in developing eLearning objects is quality assurance. UCeL has developed a two-stage development model with quality assurance testing at each stage. The first stage culminates in the specification for the new RLO. This specification is sent for peer review where the specification is evaluated against a set of quality criteria. If it passes this assessment, the RLO is then passed to the multimedia developers (often located in a different institution) who develop this specification into a multimedia product. The second stage of quality assurance again involves external assessors who evaluate, in this case, the proposed operational RLO. The discussion on this theme will involve consideration of the adequacy of such tutor based quality assurance systems.

The third theme focuses directly on the structure of the learning objects being developed. Learning objects tend to act as fixed 'chunks'. The local tutor can select or reject these RLOs, but they cannot easily, or at all, adapt them for local use. A major challenge for the next generation of RLOs is to develop RLOs that support adaptable modification to meet a range of learning demands. The symposium will outline the ideas of generative learning objects (GLOs). Generative learning objects are specifically constructed to allow the adaptation of the basic object structure to meet the needs of different learning situations. The discussion themes concern how this might be achieved, and the educational benefits of such flexible learning objects.