



# Interdisciplinary Journal of Knowledge and Learning Objects

## Volume 3, 2007

Editor-in-Chief: Alex Koohang, Macon State College, Georgia (USA)

Managing Editor: Eli Cohen, Informing Science Institute, California (USA)

Publisher: Elizabeth Boyd, Informing Science Institute, California (USA)

Cover Art: Michael Jones, University of Wollongong (Australia)

Associate Editors:

Keith Harman, Oklahoma Baptist University, Oklahoma (USA)

Frank Kurzel, University of South Australia, Adelaide (Australia)

Miguel-Angel Sicilia, University of Alcalá, Madrid (Spain)

The mission of the *Interdisciplinary Journal of Knowledge and Learning Objects* (IJKLO) is to provide readers around the world with the widest possible coverage of developments in Knowledge and Learning Objects. IJKLO is an interdisciplinary forum that publishes high quality articles on theory, practice, innovation, and research that cover all aspects of Knowledge and Learning Objects.

In addition, IJKLO provides those who submit manuscripts for publication with useful, timely feedback by making the review process constructive. IJKLO will strive to be the most authoritative journal on Knowledge and Learning Objects.

IJKLO is an academically peer reviewed Journal. All submissions are blind refereed by three or more peers. IJKLO is published in print by subscription and its articles also appear online free of charge on the web site <http://ijklo.org>

IJKLO is listed in Cabell's Directory of Publishing Opportunities in Educational Technology & Library Science, Cabell's Directory of Publishing Opportunities in Educational Curriculum & Methods, Directory of Open Access Journals (DOAJ), EBSCO.

**ISSN: online 1552-2237; print 1552-2210; CD 1552-2229**

Published by the Informing Science Institute  
131 Brookhill Ct., Santa Rosa, California USA  
phone: +1-707-537-2211; fax: +1-480-247-5724  
<http://informingscience.org>

**Copyright of Material Published in the  
Interdisciplinary Journal of Knowledge and Learning Objects**

Material published as part of this journal, either on-line or in print, is copyrighted by the Informing Science Institute. Permission to make digital or paper copy of part or all of these works for personal or classroom use is granted without fee provided that the copies are not made or distributed for profit or commercial advantage AND that copies 1) bear this notice in full and 2) give the full citation on the first page. It is permissible to abstract these works so long as credit is given. To copy in all other cases or to republish or to post on a server or to redistribute to lists requires specific permission and payment of a fee. Contact [Publisher@InformingScience.org](mailto:Publisher@InformingScience.org) to request redistribution permission.

## IJKLO Volume 3, 2007 – Table of Contents

|  |         |
|--|---------|
| Ontology-Driven E-Learning System Based on Roles and Activities for Thai Learning Environment<br><b>Chakkrit Snae and Michael Brueckner</b> .....                            | 1-17    |
| Learning Object Patterns for Programming<br><b>Ray Jones and Tom Boyle</b> .....   | 19-28   |
| Models for Sustainable Open Educational Resources<br><b>Stephen Downes</b> .....   | 29-44   |
| Contextual Inquiry: A Systemic Support for Student Engagement through Reflection<br><b>Peter Bednar, Roger Eglin, and Christine Welch</b> .....                              | 45-55   |
| Wiki as a Teaching Tool<br><b>Kevin R. Parker and Joseph T. Chao</b> .....   | 57-72   |
| Practical E-Learning for the Faculty of Mathematics and Physics at the University of Ljubljana<br><b>Primož Lukšič, Boris Horvat, Andrej Bauer, and Tomaž Pisanski</b> ..... | 73-83   |
| An Integrated Model of Collaborative Knowledge Building<br><b>Gurparkash Singh, Louise Hawkins, and Greg Whymark</b> .....   | 85-105  |
| Applying a System Development Approach to Translate Educational Requirements into E-Learning<br><b>Said Hadjerrouit</b> .....  | 107-134 |
| An Integrated Approach for Automatic Aggregation of Learning Knowledge Objects<br><b>Amal Zouaq, Roger Nkambou, and Claude Frasson</b> .....                                 | 135-162 |
| Adaptive Learning by Using SCOs Metadata<br><b>Danijela Milošević, Mirjana Brkovic, Matjaž Debevc, and Radojka Krneta</b> .....  | 163-174 |
| Viability of the "Technology Acceptance Model" in Multimedia Learning Environments: A Comparative Study<br><b>Raafat George Saadé, Fassil Nebebe, and Weiwei Tan</b> .....   | 175-184 |
| Using Video to Record Summary Lectures to Aid Students' Revision<br><b>Janice Whatley and Amrey Ahmad</b> .....  | 185-196 |
| Pre-service Teachers' Learning Object Development: A Case Study in K-12 Setting<br><b>Yavuz Akpınar and Huseyin Simsek</b> .....   | 197-217 |
| An Engagement Model for Learning: Providing a Framework to Identify Technology Services<br><b>I.T. Hawryszkiewicz</b> .....  | 219-228 |
| Meta-Data Application in Development, Exchange and Delivery of Digital Reusable Learning Content<br><b>Korneliya Yordanova</b> .....   | 229-237 |
| Reading in A Digital Age: e-Books Are Students Ready For This Learning Object?<br><b>Nicole Buzzetto-More, Retta Sweat-Guy and Muna Elobaid</b> .....                        | 239-250 |

