Keynotes

Torn between Technology Lust and Teaching Humans ................................................................. 1
Carmen Taran

Does Elearning Have To Be So Awful? (Time to Mashup or Shutup) ........................................ 6
Marc Eisenstadt

New Educational Technology Models for Social and Personal Computing ............................... 11
Eileen Scanlon and Tim O’Shea

Main Conference

A Broker Architecture for Integration of Heterogeneous Applications for Inquiry Learning .......... 15
Lars Bollen, Andreas Harrer, H. Ulrich Hoppe, and Wouter van Joolingen

A Case Study of Applying SNA to Analyze CSCL Social Network ........................................... 18
Zuoliang Chen and Shigeyoshi Watanabe

A Case Study of the Development of e-Learning Systems Following a Component-Based Layered Architecture ....................................................... 21
Delano M. Beder, André C. Silva, Joice L. Otsuka, Celmar G. Silva and Heloísa V. Rocha

A Collaborative Medical Case Authoring Environment Based on UMLS .................................. 26
Siriwan Suebmukarn, Phattanapon Rienmora, and Peter Haddawy

A Collaborative Support Tool for Creativity Learning: Idea Storming Cube ............................. 31
Chun-Chieh Huang, Tsai-Yen Li, Hao-Chuan Wang, and Chun-Yen Chang

A Computer-Assisted Collaborative Approach for E-Training Course Design ......................... 36
Hui-Chun Chu, Gwo-Jen Hwang, Po-Han Wu, and Jun-Ming Chen

A Conceptual Structure for Organizational Learning and Organizational Performance ........... 41
Li Zhang, Qiong Jia, and Ping Li
A Contextualization Method of Browsing Events in Web-Based Learning Content
Management System for Personalized Learning .................................................................43
Feng-Hsu Wang

A Dynamic E-learning System for the Collaborative Business Environment ..................46
Hsien-Jung Wu and Shih-Chieh Huang

A Framework for Automated Diagram Assessment in Online Learning ..........................51
Sandra B. Fan and Steven L. Tanimoto

A Framework for Research on Technology-Enhanced Special Education .......................54
Ilkka Jormanainen, Eija Kärnä-Lin, Lauri Lahti, Kaisa Pihlainen-Bednarik, Erkki Sutinen,
Jorma Tarhio, and Marjo Virnes

A Grid Service-Based Collaborative Network Simulation Environment
for Computer Networks Education ..................................................................................56
Miguel L. Bote-Lorenzo, Juan I. Asensio-Pérez, Eduardo Gómez-Sánchez,
Guillermo Vega-Gorgojo, Yannis A. Dimitriadis, and Sergio Guíñez-Molinos

A Heuristic Understanding Model ..................................................................................61
Roland Kaschek, Eyas El-Qawasmeh, and Aleksei Tretiakov

A Learning Support System by Reflection and Knowledge Collaboration in a Software Engineering
Project Course and its Preliminary Evaluation ..............................................................64
Atsuo Hazeyama, Chika Takayama, Yuusuke Kobayashi, and Yoshihide Ohgame

A Lightweight Open Space for the Classroom—Collaborative Learning with Whiteboards
and Pen-Tablets ..............................................................................................................66
Henning Breuer, Christian Sousa, Nelson Baloian, and Mitsuiji Matsumoto

A Methodology to Facilitate Inter-Trust in Computer Supported Collaborative Learning ........................................71
Chih-Wei Chang and Gwo-Dong Chen

A Mobile Video Question Answering System for E-learning .........................................74
Yi-Ting Huang, Ching-I Chung, Chi-Cheng Tsai, Chia-Hsing Shen, Yu-Chieh Wu,
and Jie-Chi Yang

A Model for Analyzing and Evaluating the Return on Investment in e-Learning ................79
Ling-yun Yi, Ming-zhang Zuo, and Zhi-xin Wang

A Multiagent Extension for Virtual Reality Based Intelligent Tutoring Systems ..........82
Ricardo Imbert, Leticia Sánchez, Angélica de Antonio, Gonzalo Méndez, and Jaime Ramirez

A Multi-Agent Formative Assessment Support Model for Learning Management Systems ........................................85
Joice Lee Otsuka, Heloísa Vieira da Rocha, and Delano Medeiros Beder

A Multi-Parameters Personalization Approach of Learning Scenarios .........................90
Fathi Essalmi, Leila Jemni Ben Ayed, and Mohamed Jenni

A Music Programming Tool for Learning Object-Oriented Concepts ..........................92
Hyosook Jung and Seongbin Park

A Participatory Learning Environment by Using Voice Trackback System in Zoological Garden ........................................94
Yutaro Ohashi, Shuichi Nagata, Hiroshi Mashima, Hideaki Ogawa, and Makoto Arisawa

A Pedagogy-driven Personalization Framework to Support Adaptive Learning Experiences ........................................96
Polyxeni Arapi, Nektarios Mounountzis, Manolis Mylonakis, and Stavros Christodoulakis

A Petri Net-based Approach to Trust Development and Activity Understanding in Virtual University ........................................98
Chun-Chia Wang, Lawrence Y. Deng, and Yung-Hui Chen

A Pilot Study of Applying Hierarchical Curriculum Structure Graph for Remedial Learning ........................................103
YuLung Wu

A Pilot Study of the Development of Online Learning Strategies Scale (OLSS) .................108
Meng-Jung Tsai
A Pilot Study on 3G Mobile Phone and Two Dimension Barcode in Classroom Communication and Support System ................................................................. 111
  Prach Chaisatien and Kanji Akahori

A Platform to Support Anytime, Anywhere, Just-for-Me M-Learning ......................................................... 114
  Davide Tosi and Roberto Bisiani

A Prototype Live Virtual Classroom for Shared Tertiary Instruction .......................................................... 117
  Mici Halse, Brenda Mallinson, and Greg Foster

A Scoring Tool for Electronic Paper Exams .................................................................................................. 120
  Narcís Lozano, Koichi Hirosawa, and Masaki Nakagawa

A SCORM-Compliant Learning Management System that Enhances Learning by Managing the Learning Itself ................................................................................................. 122
  Yasuhiko Morimoto, Maomi Ueno, Setsuo Yokoyama, and Youzou Miyadera

A Semi-Automatic Tool for Personalizing and Reusing Web Learning Resources .................................... 127
  Doina Băbu, Bích-Liên Doan, and Yolaine Bourda

A Software System for Second-Language Vocabulary Learning .................................................................... 130
  Yukiko Sasaki Alam

A Study of Using Analytic Hierarchy Process to Explore Critical Success Factors of the K12 Digital School .................................................................................................................. 133
  Sheng-Wen Hsieh, Nian-Shing Chen, Min-Ping Wu, and Ying-Hsiu Chen

A Swarm Approach for Automatic Auditing of Pedagogical Planning ........................................................ 136
  Sergio Gutiérrez, Grégory Valigiani, Yannick Jamont, Pierre Collet, and Carlos Delgado Kloos

A Taxonomy for Cataloging LOs using IEEE Educational Metadata .......................................................... 139
  Pierpaolo Di Bitonto, Vito Leonardo Plantamura, Teresa Roselli, and Veronica Rossano

A Web-Based Question Answering System for Effective e-Learning ......................................................... 142
  Sangeetha Parthasarathy and Jinlin Chen

A Web-Based Visual Simulator with Communication Support and its Application to Computer Architecture Education .................................................................................................................. 147
  Yoshiro Imai, Keiichi Kaneko, and Masaki Nakagawa

A Wireless Sensor-based Toolkit for Building Tangible Learning Systems ..................................................... 152
  Imran A. Zualkernan, Abdul-Rahman Al-Ali, Hassan A. M. Muhsen, Mohammadhossein Afrasiabi, and Serop Babikian

Active Learning Based on Contents-Sharable Management System—Its Functions and Practices ................................................................................................................................. 157
  Mizue Kayama and Toshio Okamoto

Activity Plan Structure and Processing in Virtual Environments for Training Supported by Intelligent Tutoring Systems ................................................................. 162
  Leticia Sánchez, Ricardo Imbert, and Jaime Ramírez

Adaptable InfoStation-based mLecture Service Provision within a University Campus ..................................... 165
  Ivan Ganchev, Stănimir Stoianov, Mairtin Ó'Droma, and Damien Meere

Adaptable Instructional Images versus Adaptable Instructional Video: Comparison of the Two Methods of Instruction and Results of a Post-Research Survey ................................................................. 170
  Stavros K. Filippidis and Ioannis A. Tsoukalas

Adapting Health Care Competencies to a Formal Competency Model .......................................................... 172
  Onjira Sitthisak, Lester Gilbert, Hugh C Davis, and Mary Gobbi

AirTransNote: An Instant Note Sharing and Reproducing System to Support Students Learning .................. 175
  Motoki Miura, Susumu Kuniiyuji, and Yasuyuki Sakamoto

An Adaptive Framework for Aggregating Mobile Learning Materials .......................................................... 180
  Meng-Chien Yang
An Analysis Using Eye-Mark Recorder of the Effectiveness of Presentation Methods for e-learning .............................................183
Masahiro Ando, Masahito Nagamori, Pokpong Songmuang, Maomi Ueno, and Toshio Okamoto

An Animated Pedagogical Agent as a Learning Management System Manipulating Intelligent Learning Objects ......................................................................................................................................186
Beatriz Wilges, Gustavo Pereira Mateus, Ricardo Azambuja Silveira, and Silvia Modesto Nassar

An Approach to Personalisation in E-learning ..........................................................................................................................189
Itana Stiubiener, Wilson Vicente Ruggiero, and Marta Costa Rosatelli

An Architecture for Dynamic Generation of QTI 2.1 Assessments for Mobile Devices
Using Flash Lite ..............................................................................................................................................................................................................................................................194
Imran A. Zaalkernan, Yaser A. Ghanam, Mohammed F. Shoshaa, and Amir S. Kalbasi

An Automatic Quiz Generation System for English Text .........................................................................................................................196
Li-Chun Sung, Yi-Chien Lin, and Meng Chang Chen

An Educational System that Explains the Domain-Oriented-Explanation of Program’s Behaviors ..............................................................198
Fumihiko Anma, Tomonori Kato, Tatsuhiko Konishi, Yukihiro Itoh, and Toshio Okamoto

An Evaluation Framework for Grid-Based Learning Technologies ..............................................................................................................200
Colin Allison, Tim Storer, Stuart Purdie, and Rosa Michaelson

An Evaluation of Automatic Text Categorization in Online Discussion Analysis .........................................................................................205
Andrew Kwok-Fai Lui, Siu Cheung Li, and Sheung On Choy

An Experimental CALL System Enhanced with Wiki .................................................................................................................................210
Masahiro Mochizuki

An Integrative Model for the Evaluation of E-portfolios .................................................................................................................................215
Madhumita Bhattacharya and Shannon Novak

An Interaction Study of Learning with Handhelds and Large Shared-Displays
in Technology-Enriched Collaborative Classroom .................................................................................................................................217
Chen-Chung Liu, Chen-Wei Chung, Yu-Lin Weng, Cheng-Yu Wu, and Pei-Ting Kao

An Ontological Approach for Semantic Learning Objects Interoperability ......................................................................................................222
Ming Che Lee, Kun Hua Tsai, Tung Cheng Hsieh, Ti Kai Chiu, and Tzone I Wang

An Ontology-Based Framework for Authoring Assisted by Recommendation .................................................................................................227
Saša Nešić, Dragan Gašević, and Mehdi Jazayeri

An Optimized Algorithm for Distributing Large Numbers of Students to Small Exercise Groups ........................................................................232
Sabina Jeschke, Robert Luce, Olivier Pfeiffer, and Erhard Zorn

Analysing the Relationship between Learning Styles and Cognitive Traits.....................................................................................................235
Sabine Graf, Taiyu Lin, and Kinshuk

Analysis of Time-Management Pattern of Interactive Behaviors during Online Project-Based Learning .........................................................240
Huei-Tse Hou, Kuo-En Chang, and Yao-Ting Sung

Analyzing the Motivation of the Students in the Art Faculty for Learning Programming ..............................................................................244
Yasuhiro Takeamura, Hideo Nagumo, Hidetomi Tsukamoto, and Kuo-Li Huang

Applying Content Adaptation Technique to Enhance Mobile Learning on Blackboard Learning System ........................................................................247
Stephen J.H. Yang, Irene Y.L. Chen, and Rick Chen

Architecture of a Context-Aware and Adaptive Learning Schedule for Learning Java .................................................................................................252
Jane Yau and Mike Joy

Assessing Collaborative Process in CSCL with an Intelligent Content Analysis Toolkit ..............................................................................257
Yanyan Li, Jing Wang, Jian Liao, Donglun Zhao, and Ronghuai Huang

Assessing the Usability of a Cookies-Based Access Monitoring Tool for a CMS .........................................................................................262
Raquel Hijón-Neira, Jaime Urquiza-Fuentes, Francisco Domínguez-Mateos, and J. Angel Velázquez-Iturbide
Assisted Ontology Instantiation: A LearningKit Perspective ............................................................................................................................ 265
  Liam Doherty, Vive Kumar, and Phil Winne

Augmented Interface for Children Chinese Learning ................................................................................................................................. 268
  Chien-Hsu Chen, Chun-Chin Su, Po-Yen Lee, and Fong-Gong Wu

Authoring Tools in e-Learning: A Case Study ........................................................................................................................................ 271
  Yaming Tai and Robert Yu-Liang Ting

Automated Course Composition and Recommendation Based on a Learner Intention ................................................................................ 274
  Kun Hua Tsai, Tung Cheng Hsieh, Ti Kai Chiu, Ming Che Lee, and Tzone I Wang

Automatic Evaluation of Spatial Representations for Complex Robotic Arms Manipulations ............................................................ 279
  Philippe Fournier-Viger, Roger Nkambou, André Mayers, and Daniel Dubois

Bayesian Agent in e-Learning ............................................................................................................................................................... 282
  Maomi Ueno and Toshio Okamoto

Bayesian Modelling of Confusability of Phoneme-Grapheme Connections .................................................................................................. 285
  Mikko Vilenius, Janne Kujala, Ulla Richardson, Heikki Lyttinen, and Toshio Okamoto

Best Practice Instructional Design in the Synchronous Cyber Classroom for Early Childhood Students .................................................. 288
  Megan Hastie, Nian-Shing Chen, and Yen-Hung Kuo

Bridging the Gap between Advanced Distributed Teaching and the Use of Learning Management Systems in the University Context .................. 293
  Ari Marko Wahlstedt and Anne Marita Honkaranta

  Ekaterina Prasolova-Førland and Teng-Wen Chang

Building an Interactive Caring Agent for Students in Computer-Based Learning Environments ............................................................. 300
  Tzung-Yi Lee, Chih-Wei Chang, and Gwo-Dong Chen

Can Learning Object Metadata stand as Learning Resource Models for iLMS? .................................................................................................. 305
  Lahcen Oubahssi and Monique Grandbastien

CIEL, Architectures for Collaborative Inquiry and Experiential Learning ...................................................................................................... 308
  Wouter R. van Joolingen, Lars Bollen, Ulrich Hoppe, and Ton de Jong

Classroom Climate and Learning Effectiveness Comparison for Physical and Cyber F2F Interaction in Holistic-Blended Learning Environment .................................................................................................................. 313
  Nian-Shing Chen, Kinshuk, Chun-Wang Wei, Yi-Ru Chen, and Yu-Chun Wang

Cloze Information Gap Tasks with Print-Based Digital Content Interfaces ................................................................................................. 318
  John Brine, Kamen Kanev, Thomas Orr, and Deborah Turk

CLUSPI® Support for Collaborative Learning in a Dynamic Group Environment ................................................................................................. 320
  Kamen Kanev, Deborah Turk, John Brine, and Thomas Orr

Cognitive Structural Modelling of Skills for Technology-Enhanced Learning .................................................................................................. 322
  Dietrich Albert, Cord Hockemeyer, Birgit Mayer, and Christina M. Steiner

Cognitive Trait Model and Divergent Associative Learning .......................................................................................................................... 325
  Taiyu Lin, Kinshuk, and Sabine Graf

Collaborative e-Learning Among Teachers Using a Web Database in Special Support Education .................................................................................. 328
  Masahito Nagamori, Msahiro Ando, Masaki Nagasawa, Pokpong Songmuang, and Maomi Ueno

Combine Adaptive Education Hypermedia and SCORM Compliant Learning Management Systems ........................................................................ 330
  Ioannis Kazanidis and Maya Satratzemi

Conceptual Multi-Device Design on the Transition between e-learning and m-learning .................................................................................. 332
  Rodrigo de Oliveira and Heloísa Vieira da Rocha

Concern-based Learning of Complex Software Platforms .......................................................................................................................... 335
  Imed Hammouda, Mika Jokinen, André L. Santos, and Kai Koskimies
Concerto II: A Learning Community Support System Based on Question-Posing ...................................................338
Atsuo Hazeyama and Yuuki Hirai

Conducting Classroom Discussions in the Manner of an Orchestra Using a Mobile Phone Based Response Analyzing System ...................................................................................................... ................................340
Ryo Nakai and Keizo Nagaoka

Constructing an Authentic Learning Community through Wiki for Advanced Group Collaboration and Knowledge Sharing.......................................................................................................... ...................................342
Chien-Hui Lin, Liang-Yi Li, Wen-Chu Hu, Gwo-Dong Chen, and Baw-Jhiune Liu

Constructing an MCSCL Groupware to Improve the Problem-Solving Experience of Mathematics for Hearing-Impaired Students ..................................................................................................................................345
Chen-Chung Liu, Shu-Yuan Tao, Kuang-Wen Ho, Baw-Jhiune Liu, and Ching-Chi Hsu

Constructing the Game-Based Learning Environment on Handheld Devices to Facilitate English Vocabulary Building ....................................................................................................................................348
Hui-Chun Hung and Shelley Shwu-Ching Young

Context-Aware Ubiquitous English Learning in a Campus Environment ......................................................................................................................................................351
Hsin-Chun Hsieh, Chih-Ming Chen, and Chin-Ming Hong

Data Flow between Tools: Towards a Composition-Based Solution for Learning Design ........................................................................................................................................354
Luis Palomino-Ramírez, Alejandra Martínez-Monés, Miguel L. Bote-Lorenzo, Juan I. Asensio-Pérez, and Yannis A. Dimitriadis

Data-Driven Approach to Pronunciation Error Detection for Computer Assisted Language Teaching ........................................................................................................359
Min-Siong Liang, Zien-Yong Hong, Ren-Yuan Lyu, and Yang-Chin Chiang

Delivering Context-aware Learning Guidance in the Mobile Learning Environment based on Information Theory .......................................................................................................................................362
Rita Kuo, Min-Chang Wu, Alex Chang, Maiga Chang, and Jia-Sheng Heh

Delivering IMS Learning Design Activities via Mobile Devices ................................................................................367
Demetrios Sampson, Kerstin Götze, and Panayiotis Zervas

Design and Implementation of a Mobile Learning Environment as an Extension of SCORM 2004 Specifications ........................................................................................................369
Kiyoshi Nakabayashi, Takahide Hoshide, Masanobu Hosokawa, Taichi Kawakami, and Kazuo Sato

Design and Implementation of Video-enabled Web-based Pronunciation Debugging System ........................................................................................................................................374
Chiung-Fang Chiu, Greg C Lee, and Ju-Hsush Yang

Designing a Bayesian Network Based Student Model for Distance Learning Environments ........................................................................................................................................379
Michele Silva, Ricardo Silveira, Cecília Flores, and Rosa Vicari

Designing a Dynamic E-learning Project Performance Evaluation Framework ........................................................................................................................................381
Hsiao-Ya Chiu, Chieh-Chung Sheng, and An-Pin Chen

Designing Innovative Learning Activities Using Ubiquitous Computing ........................................................................................................................................386
Arianit Kurti, Marcelo Milrad, and Daniel Spikol

Developing a Robust Authoring Annotation System for the Semantic Web ........................................................................................................................................391
Yan Bodain and Jean-Marc Robert

Development and Evaluation of a Self-Regulatory-Learning-Cycle-Based System for Self-Regulated e/m-Learning ........................................................................................................................................396
Kwei-Ping Shih, Tai-Chien Kao, Chih-Yung Chang, and Hung-Chang Chen

Development of a Know-How Information Sharing System for Care Planning Processes ........................................................................................................................................398
Kaoru Eto, Tatsunori Matsui, and Yasuo Kabasawa

Development of an Intellectual e-NOTEBOOK System for Group Learning Support ........................................................................................................................................400
Xin Wan, Toshiie Ninomiya, and Toshio Okamoto
Different Evaluations of e-Learning for Japanese Academic Reading between Foreign Students and Japanese Language Teachers .................................................. Yukari Kato and Toshio Okamoto

Discovering New Knowledge with Advanced Data Mining Tool .................................................. Simon Kocbek, Primož Kosec, Peter Kokol, Mitja Lenic, and Matjaž Debevec

Doctorate_machine: An Innovative Tool for a Non Paper Ph.D. Dissertation .................................. Manthos Santorineos

Educational Information Search Service Using Ontology ................................................................. Byoungchol Chang, Dall-ho Ham, Dae-sung Moon, Yong S. Choi, and Jaehyuk Cha

Edu-mining for Finding Keywords to Improve Message-Production Skills ........................................ Ryo Nagata, Koji Šuda, Junichi Kakegawa, Koichiro Morihiro, and Kazuhiro Showji


Effective Student Assistance in Virtual Reality Based Intelligent Tutoring Systems ........................ Leticia Sánchez and Ricardo Imbert

E-mail-based Education Environment Using Mobile Phone Communication .................................. Toshiyuki Maeda, Tadayuki Okamoto, Tetsushi Miura, Yae Fukushige, and Takayuki Asada


Enabling Knowledge Sharing with an Institutional Repository ......................................................... Gayatri Doctor and Smitha Ramachandran

Engineering Heterogeneous Distributed Learning Environments Using Tuple Spaces as an Architectural Platform .......................................................... Stefan Weinbrenner, Adam Giemza, and H. Ulrich Hoppe

E-Testing Construction Support System with some Prediction Tools ............................................ Pokpong Songmuang, Masahiro Ando, Masahito Nagamori, Maomi Ueno, and Toshio Okamoto

Evaluating Learners’ Knowledge-Structure using Bayesian Networks ........................................... Yasuko Namatame and Maomi Ueno


Experiences of Adopting In-class Blogs in the Teaching of Hands-on Computer Laboratory Courses .................................................. Yao-Jen Chang and Chiu-Hui Chen

Finding a Fitting Learning Path in E-learning for Juvenile ................................................................. Jin-Cherng Lin and Kuo-Chiang Wu

Finding the Right Tool for the Community: Bringing a Wiki-Type Editor to the World of Reusable Learning Objects ........................................ Chu Wang, Hugh C Davis, Kate Dickens, Gary Wills and Su White

FM and Web Broadcasting Systems for Mobile Language Listening ............................................... Wang Shudong and Neil Heffernan

From Knowledge Publishing to Peer Review ............................................................ Akihiro Kashihara and Yasuhiro Kamoshita

From UML to CPM: A Few Lessons Learnt about CPM Language Usability ................................ Thierry Nodenot

Functionality and SCORM-Compliancy Evaluation of eLearning Tools ........................................ Ivan Ganchev, Mairtin O’Droma, and Radoslav Andreev
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical Concept Recognition with the Octgrid Method for Learning Geography and Geology</td>
<td>470</td>
</tr>
<tr>
<td>Ryusuke Yokoyama, Akira Kureha, Tomoe Motohashi, Hiroyasu Ogasawara,</td>
<td></td>
</tr>
<tr>
<td>Takeo Yaku, and Daisuke Yoshino</td>
<td></td>
</tr>
<tr>
<td>Geography Learning Technology Based on 3D CG with Geography Data Archives</td>
<td>472</td>
</tr>
<tr>
<td>Daisuke Yoshino, Satoshi Kishira, Miyuki Shimizu, Kensei Tsuchida, Shin-ya Uehara,</td>
<td></td>
</tr>
<tr>
<td>and Takeo Yaku</td>
<td></td>
</tr>
<tr>
<td>Graphical Representation of Abstract Learning Scenarios: The UML4LD Experimentation</td>
<td>477</td>
</tr>
<tr>
<td>Pierre Laforcade</td>
<td></td>
</tr>
<tr>
<td>Grid Enabled Collaborative Learning</td>
<td>480</td>
</tr>
<tr>
<td>Colin Allison, Ross Nicoll, Stuart D.J. Purdie, Marc Eisenstadt, Jiří Komzak,</td>
<td></td>
</tr>
<tr>
<td>and Chris Denham</td>
<td></td>
</tr>
<tr>
<td>Handheld Computer Supported Context-Aware Learning with 2D Barcodes</td>
<td>485</td>
</tr>
<tr>
<td>Yu-Ling Chiu and Tsung-Yu Liu</td>
<td></td>
</tr>
<tr>
<td>Impact of Process Goal and Outcome Goal on Learning Performance for Web-Based Learners</td>
<td>487</td>
</tr>
<tr>
<td>Nian-Shing Chen, Kinshuk, Chun-Wang Wei, and Feng-Hsien Hsu</td>
<td></td>
</tr>
<tr>
<td>Impediments to Adoption of e-Learning Technology in Combating Anti-Money Laundering in UAE Banks</td>
<td>489</td>
</tr>
<tr>
<td>Alya Al Hammadi, Imran A. Zualkernan, and Rana Ahmed</td>
<td></td>
</tr>
<tr>
<td>Indicators’ Elicitation Process for Re-Engineering of Learning Scenario: Tracks Approach Based on Usage Tracking Language</td>
<td>492</td>
</tr>
<tr>
<td>Noa Randriamalaka, Sébastien Iksal, and Christophe Choquet</td>
<td></td>
</tr>
<tr>
<td>Innovative Technologies for Learning in Science Laboratories</td>
<td>497</td>
</tr>
<tr>
<td>Frédéric Fournier and Martin Riopel</td>
<td></td>
</tr>
<tr>
<td>Instructional Software Analysis: Lessons from Software Development Process Improvement</td>
<td>499</td>
</tr>
<tr>
<td>David Díez, Camino Fernández, Juan Manuel Dodero, Paloma Díaz, and Ignacio Aedo</td>
<td></td>
</tr>
<tr>
<td>Integrated Paper Slide in Classroom to Enhance Interaction Using Digital Pens</td>
<td>502</td>
</tr>
<tr>
<td>Yi-Ping Lin, Po-Yao Chao, Gwo-Dong Chen, and Jorng-Tzong Horng</td>
<td></td>
</tr>
<tr>
<td>Integrating Dynamic Program Visualization into BlueJ: The Jeliot 3 Extension</td>
<td>505</td>
</tr>
<tr>
<td>Niko Myller, Roman Bednarik, and Andrés Moreno</td>
<td></td>
</tr>
<tr>
<td>Integrating Face Recognition Techniques with Blog as a Distance Education Support System (DESS) in International Distance Learning</td>
<td>507</td>
</tr>
<tr>
<td>Hsiu-Ping Yueh, Yi-Ling Liu, Wei-Jane Lin, Tetsuo Shoji, and Michihiko Minoh</td>
<td></td>
</tr>
<tr>
<td>Intelligent Web-based Tutoring System with Personalized Learning Path Guidance</td>
<td>512</td>
</tr>
<tr>
<td>Chin-Ming Hong, Chih-Ming Chen, Mei-Hui Chang, and Shin-Chia Chen</td>
<td></td>
</tr>
<tr>
<td>Intelligibility Catchers for Self-Managed Knowledge Transfer</td>
<td>517</td>
</tr>
<tr>
<td>Chris Stary</td>
<td></td>
</tr>
<tr>
<td>Interactive Educational Technologies for New Generations in China</td>
<td>522</td>
</tr>
<tr>
<td>Xuemei Li</td>
<td></td>
</tr>
<tr>
<td>Internet-based Survey Design: Principles from a Thai Experimental Study</td>
<td>525</td>
</tr>
<tr>
<td>Poonseri Vate-U-Lan</td>
<td></td>
</tr>
<tr>
<td>Interoperable Bayesian Agents for Collaborative Learning</td>
<td>530</td>
</tr>
<tr>
<td>Elisa Boff, Elder Rizzon Santos, Moser S. Fagundes, and Rosa Maria Vicari</td>
<td></td>
</tr>
<tr>
<td>Is Less Actually More? The Usefulness of Educational Mini-games</td>
<td>533</td>
</tr>
<tr>
<td>Alex Frazer, David Argles, and Gary Wills</td>
<td></td>
</tr>
<tr>
<td>Learning Information Systems Engineering and its Management from Experience of a Tiny Project through University-Industry Collaboration</td>
<td>538</td>
</tr>
<tr>
<td>Yoshiaki Matsuzawa and Hajime Ohiwa</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Learning Management Systems' Database Exploration by Means of Information Visualization-Based Query Tools</td>
<td>543</td>
</tr>
<tr>
<td>Celmar Guimarães da Silva and Heloísa Vieira da Rocha</td>
<td></td>
</tr>
<tr>
<td>Learning Mechanisms for a Tutoring Cognitive Agent</td>
<td>546</td>
</tr>
<tr>
<td>Usef Faghihi, Daniel Dubois, and Roger Nkambou</td>
<td></td>
</tr>
<tr>
<td>Learning Objects Reusability and Retrieval through Ontological Sharing: A Hybrid Unsupervised Data Mining Approach</td>
<td>548</td>
</tr>
<tr>
<td>Ching-Chieh Kiu and Chien-Sing Lee</td>
<td></td>
</tr>
<tr>
<td>Leveraging the Semantic Web for Providing Educational Feedback</td>
<td>551</td>
</tr>
<tr>
<td>Jelena Jovanović, Dragan Gašević, Cristopher Brooks, Timmy Eap, Vladan Devedzic, Marek Hatala, and Griff Richards</td>
<td></td>
</tr>
<tr>
<td>Longitudinal Syntactic Analysis of Laboratory Submissions for Examining Problem-Solving Behaviour</td>
<td>556</td>
</tr>
<tr>
<td>Cara MacNish</td>
<td></td>
</tr>
<tr>
<td>Long-Term Memory of Foreign-Word Learning by Short Movies for iPods</td>
<td>561</td>
</tr>
<tr>
<td>Satoko Amemiya, Kazumori Hasegawa, Keiichi Kaneko, Haruko Miyakoda and Wataru Tsukahara</td>
<td></td>
</tr>
<tr>
<td>Managing Personalized and Adapted Medical Learning Objects</td>
<td>564</td>
</tr>
<tr>
<td>Juha Puustjärvi and Leena Puustjärvi</td>
<td></td>
</tr>
<tr>
<td>MapEvaluator in Action: A Comparative Test on the Efficiency of the Quantitative Concept</td>
<td>566</td>
</tr>
<tr>
<td>Carlo Giovannella, Paolo Emilio Selva, and Sara Fraioli</td>
<td></td>
</tr>
<tr>
<td>mArachna—Applying Natural Language Processing Techniques to Ontology Engineering</td>
<td>571</td>
</tr>
<tr>
<td>Sabina Jeschke, Nicole Natho, Sebastian Rittau, and Marc Wilke</td>
<td></td>
</tr>
<tr>
<td>Maths Adaptive Tutorial System for Learners with Disabilities</td>
<td>576</td>
</tr>
<tr>
<td>James Ohene-Djan and Benoy Sen</td>
<td></td>
</tr>
<tr>
<td>Memorization and Training Activities in Mobile Devices</td>
<td>581</td>
</tr>
<tr>
<td>Ainara Urrutia, Naiara Maya, Josune Gereka, Ohian Odriozola, Jon A. Elorriaga, and Ana Arruarte</td>
<td></td>
</tr>
<tr>
<td>Mining Key Formative Assessment Rules based on Learner Profiles for Web-based Learning Systems</td>
<td>584</td>
</tr>
<tr>
<td>Chih-Ming Chen, Ming-Chuan Chen, and Yi-Lun Li</td>
<td></td>
</tr>
<tr>
<td>Mobile Computing to Seamlessly Integrate Formal and Informal Learning</td>
<td>589</td>
</tr>
<tr>
<td>Hemming Breuer, Roberto Konov, Nelson Baloian, and Gustavo Zurita</td>
<td></td>
</tr>
<tr>
<td>Modeling and Building Intelligent Learning Environments through Intelligent Learning Objects</td>
<td>592</td>
</tr>
<tr>
<td>Júlia Marques Carvalho da Silva and Ricardo Azambuja Silveira</td>
<td></td>
</tr>
<tr>
<td>Motivating Online Expertise-Sharing for Informal Learning: The Influence of Age and Tenure in Knowledge Organizations</td>
<td>595</td>
</tr>
<tr>
<td>David Huffaker and Jennifer Lai</td>
<td></td>
</tr>
<tr>
<td>Not Afraid to Ask</td>
<td>600</td>
</tr>
<tr>
<td>Ko-Kang Chu, Ming-Chuan Li, and Yen-Teh Hsia</td>
<td></td>
</tr>
<tr>
<td>Observation Scenario Development Using Recommendations</td>
<td>605</td>
</tr>
<tr>
<td>Vincent Barre, Christophe Choquet, and Sébastien Iksal</td>
<td></td>
</tr>
<tr>
<td>Operationalization of the Metadata Element “Difficulty”</td>
<td>608</td>
</tr>
<tr>
<td>Margit Kastner and Gerhard Furtmüller</td>
<td></td>
</tr>
<tr>
<td>Organizational Memory towards School Customs Constructing</td>
<td>613</td>
</tr>
<tr>
<td>Yueliang Zhou and Jingyao Wang</td>
<td></td>
</tr>
<tr>
<td>PALS2: Pedagogically Adaptive Learning System Based on Learning Styles</td>
<td>616</td>
</tr>
<tr>
<td>Melody Siadaty and Fattaneh Taghiyare</td>
<td></td>
</tr>
</tbody>
</table>
Personality and Collaborative Learning Experience

Amal Al-Dujaily and Hokyoung Ryu

Personalization of Immediate Feedback to Learning Styles

Ekaterina Vasilyeva, Mykola Pechenizkiy, Tatiana Gavrilova, and Seppo Puuronen

Personalized Annotation Management: A Web 2.0 Social Software for Enhancing Knowledge Sharing in Communities of Practice

Stephen J.H. Yang, Irene Y.L. Chen, and Addison Y.S. Su

Personalized Context-Aware Ubiquitous Learning System for Supporting Effectively English Vocabulary Learning

Chih-Ming Chen, Yi-Lun Li, and Ming-Chuan Chen

Personalized Courses Recommendation Functionality for Flex-eL

Alex Pongpech, Maria E. Orlowska, and Shazia W. Sadiq

Personalized E-learning System based on Ontology-based Concept Map Generation Scheme

Chih-Ming Chen and Chi-Jui Peng

Personalized E-Learning System with Self-Regulated Learning Assisted Mechanisms for Promoting Learning Performance

Chih-Ming Chen, Ting-Chun Huang, Tai-Hung Li, and Chia-Meng Huang

Predicting the Learner’s Emotional Reaction towards the Tutor’s Intervention

Soumaya Chaffar, Gerardo Cepeda, and Claude Frasson

Principles for Designing Activity-based Personalized eLearning

Owen Conlan, Ian O'Keeffe, Aoiife Brady, and Vincent Wade

Proactive e-Learning Management System

Denis Zampuniéris

Proposal of Registry System for Sharing Educational Web Service

Youji Ochi and Yoneo Yano

Quantitative Evaluation of Intelligent Ability with Computer Games

Makoto Hasegawa and Yukuo Isomoto

Reach: An Awareness Rich CSCL Text Chat Tool with Real-Time Key Typing Display

Wataru Tsukahara, Zhang Zisheng, Shingo Akamatsu, Fumihiko Anma, and Toshio Okamoto

Re-Designing an OOP Course Based on BlueJ

Stelios Xinogalos, Maya Satratzemi, and Vassilios Dagdilelis

Replacing the Monolithic LOM: A Folksonomic Approach

Hend S. Al-Khalifa and Hugh C. Davis

Reusing Pedagogical Scenarios at a Knowledge Level: A Model Driven Approach

Hassina El-Kechai and Christophe Choquet

RFID-based Ubiquitous Learning Environment for Outdoor Learning

Tsung-Yu Liu, Yu-Ling Chu, Tan-Hsu Tan, and Chi-Cheng Chang

Robot as a Storytelling Partner in the English Classroom—Preliminary Discussion

Chao-Fen Shih, Chih-Wei Chang, and Gwo-Dong Chen

Semantic Relation Analysis and its Application in Cognitive Profiling

Taiyu Lin, Kinshuk, and Sabine Graf

Sequential Input Graphical Model Assessment Diagrams for Analysis of Student Activity Data

Steven Tanimoto, Nathan Evans, and Adam Carlson

Services for Knowledge Resource Sharing & Management in an Open Source Infrastructure for Lifelong Competence Development

Elena Demidova, Philipp Kärger, Daniel Olmedilla, Stefaan Ternier, Erik Duval, Michele Dicerto, Carlos Mendez, and Krassen Stefanov
Sharing an Ontology in Education: Lessons Learnt from the OURAL Project ................................................................. 694
Monique Grandbastien, Faiçal Azouaou, Cyrille Desmoulins, Richard Faerber, Dominique Leclet and Céline Quênu-Joiron

Social Network Analysis of Interaction in Online Learning Communities ........................................................................ 699
Yonggu Wang and Xiaojuan Li

Social Presence and Student Perceptions in the Blend of Synchronous and Asynchronous Communication Forms .............................................................. 701
Miriam Weinel and Chun Hu

Standards and Tools for Context-Aware Ubiquitous Learning .............................................................................................................. 704
Fan-Ray Kuo, Gwo-Jen Hwang, Yen-Jung Chen, and Shu-Ling Wang

Streaming Multimedia Delivery in Web Services Based E-Learning Platforms ....................................................................................... 706
Gibson Lam and David Rossiter

SWAPS: Semantic Web Approach for Personalisation of Study .................................................................................................................. 711
German Nemirovskij, Michael Thomas Egner, and Eberhard Heuel

Teaching UML Modeling Before Programming at the High School Level ......................................................................................... 713
Cortland Starrett

The Adaptive and Intelligent Testing Framework: PersonFit .............................................................................................................. 715
Komi Sodoké, Gilles Raiche, and Roger Nkambou

The Advanced Mobile Learning Practices: Learning Features and Implications .......................................................................................... 718
Robert Yu-Liang Ting

The Analysis of Response Patterns on IRT Ability Estimation Methods in Computerized Adaptive Test .............................................................................. 721
Deng-Jyi Chen, Ah-Fur Lai, and Chia-Chi Mao

The Analysis of Simpson’s Psychomotor Domain Educational Objectives and its Application on the Skill Evaluation for the Department of Computer Engineering at Vocational School .............................................................................................................. 723
Wen Chuan Wu, Yi Chyang Yang, and Chien Pen Chuang

The Application of IMS Learning Design to Develop Compute-Based Educational Game .............................................................................................................. 726
Miaomiao Zeng and Yueliang Zhou

The Design of e-Learning Environment Oriented for Personalized Adaptability .............................................................................................................. 728
Toshie Ninomiya, Ken Nakayama, Miyuki Shimizu, Fumihiko Anma, and Toshio Okamoto

The Designing of a Web Page Recommendation System for ESL .............................................................................................................. 730
Chen-Ching Chi, Chin-Hwa Kuo, and Chia-Chun Peng

The Development of Computerized Two-Tier Diagnostic Test and Remedial Learning System for Elementary Science Learning .............................................................................................................. 735
Ah-Fur Lai

The Effects of Knowledge Sources and Learning Styles of the Elders on their Motivations to Use Weblog Tools for Lifelong Learning .............................................................................................................. 737
Li-Chieh Chen, Po-Ying Chu, Chang-Chen Lin, and Yun-Maw Cheng

The Emergence of Pragmatic Community Practice and Specifications — Results from the European LIFE Project .............................................................................................................. 739
Tore Hoel and Paul Hollins

The Interactive Multimedia Textbook: Using a Digital Pen to Support Learning for Computer Programming .............................................................................................................. 742
Wei-Chu Lai, Po-Yao Chao, and Gwo-Dong Chen

The Open Lausanne Model: A Reference Model for Open Adaptive Learning Objects Systems .............................................................................................................. 747
Hend Madhour and Maia Wentland Forte

The PLEXus Prototype: A PLE Realized as Topic Maps .............................................................................................................. 750
Line Kolås and Arvid Staupe
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Promise and Practice of E-Learning within Complex Tertiary Environments</td>
<td>753</td>
</tr>
<tr>
<td>E. Marcia Johnson and Ruth Walker</td>
<td></td>
</tr>
<tr>
<td>The Question Model Inside ArikIturri</td>
<td>758</td>
</tr>
<tr>
<td>Itziar Aldabe, Maddalen Lopez de Lacalle, Montse Maritxalar, and Edurne Martinez</td>
<td></td>
</tr>
<tr>
<td>The Role of Evaluation in an Effective Development of Didactic Materials: The MD2 Approach</td>
<td>760</td>
</tr>
<tr>
<td>Carmen L. Padrón, Paloma Díaz, and Ignacio Aedo</td>
<td></td>
</tr>
<tr>
<td>The Software Equipments Based on Simulator</td>
<td>762</td>
</tr>
<tr>
<td>Takahiro Masuda, Hiroshi Suda, and Yoshiro Miida</td>
<td></td>
</tr>
<tr>
<td>The TenC Competence Observatory: An Enabling Technology for Common Description of Competences</td>
<td>765</td>
</tr>
<tr>
<td>Panayiotis Zervas and Demetrios Sampson</td>
<td></td>
</tr>
<tr>
<td>The Use of Practitioners Concepts of Inclusivity to Inform the Planning of Learning Activities</td>
<td>770</td>
</tr>
<tr>
<td>Emma Bradburn</td>
<td></td>
</tr>
<tr>
<td>The Use of XML to Create a Historical Knowledge Base</td>
<td>772</td>
</tr>
<tr>
<td>Katsuko T. Nakahira, Masashi Matsui, and Yoshiki Mikami</td>
<td></td>
</tr>
<tr>
<td>The Views of Educational Practitionians in Ghana on ICT Use and Instructional Design Practice for Promoting Quality Education</td>
<td>775</td>
</tr>
<tr>
<td>Frederick Kwaku Sarfo</td>
<td></td>
</tr>
<tr>
<td>The Web 2.0 Driven SECI Model Based Learning Process</td>
<td>780</td>
</tr>
<tr>
<td>Mohamed Amine Chatti, Ralf Klamma, Matthias Jarke, and Ambjörn Naeve</td>
<td></td>
</tr>
<tr>
<td>To Improve Bayesian Network Learner Modelling Thanks to Multinet</td>
<td>783</td>
</tr>
<tr>
<td>Mathieu Hibo and Jean-Marc Labat</td>
<td></td>
</tr>
<tr>
<td>Toward Making Didactics a Subject of Knowledge Engineering</td>
<td>788</td>
</tr>
<tr>
<td>Rainer Knauf, Yoshitaka Sakurai, and Setsuo Tsuruta</td>
<td></td>
</tr>
<tr>
<td>Towards a Canonical View of Peer Assessment</td>
<td>793</td>
</tr>
<tr>
<td>David E. Millard, Karen Fill, Lester Gilbert, Yvonne Howard, Patrick Sinclair, Damilola O. Senbanjo, and Gary B. Wills</td>
<td></td>
</tr>
<tr>
<td>Towards a Common Graphical Language for Learning Flows: Transforming BPEL to IMS Learning Design Level A Representations</td>
<td>798</td>
</tr>
<tr>
<td>Pythagoras Karampiperis and Demetrios Sampson</td>
<td></td>
</tr>
<tr>
<td>Towards a Computer-Based Supporting Infrastructure for Outcome-Based Education</td>
<td>801</td>
</tr>
<tr>
<td>Mangtang Chan, Florence Yu Mong, and Francis Kar Ho Chan</td>
<td></td>
</tr>
<tr>
<td>Towards a Unified Learning Style Model in Adaptive Educational Systems</td>
<td>804</td>
</tr>
<tr>
<td>Elvira Popescu, Philippe Trigano, and Costin Badica</td>
<td></td>
</tr>
<tr>
<td>Towards Advanced Learner Modeling: Discussions on Quasi Real-Time Adaptation with Physiological Data</td>
<td>809</td>
</tr>
<tr>
<td>Emmanuel Blanchard, Pierre Chalfoun, and Claude Frasson</td>
<td></td>
</tr>
<tr>
<td>Towards Collaborative Domain Module Authoring</td>
<td>814</td>
</tr>
<tr>
<td>Mikel Larrañaga, Ianire Niebla, Urko Rueda, Ana Arruarte, and Jon A. Elorriaga</td>
<td></td>
</tr>
<tr>
<td>Towards Defining a Suitable Environment for Teaching Digital Arts: The Delphous Experiment</td>
<td>819</td>
</tr>
<tr>
<td>Manthos Santorineos, Stavroula Zoi, Nefeli Dimitriadi, and Chu-Yin Chen</td>
<td></td>
</tr>
<tr>
<td>Towards Mixed-Initiative Interactions in Novice Programming</td>
<td>822</td>
</tr>
<tr>
<td>Shilpi Rao, Liam Doherty, and Vive Kumar</td>
<td></td>
</tr>
<tr>
<td>Towards Semantic Group Formation</td>
<td>825</td>
</tr>
<tr>
<td>Asma Ounnas, Hugh C Davis, and David E Millard</td>
<td></td>
</tr>
<tr>
<td>Two Different Methods to Analyze the Strategies of Problem Solving in a Natural Situation Using a Simulator: A Case Study</td>
<td>828</td>
</tr>
<tr>
<td>Jean-Marc Labat, Pierre Pastre, Pierre Parage, Michel Futerssack, Jean-François Richard, and Emmanuel Sander</td>
<td></td>
</tr>
</tbody>
</table>
Usability of a Content Construction System for Collaborative Learning ................................................................. 833
Tomoo Inoue, Naoko Yoshimura, Shigeo Sugimoto, and Noriko Kando

Using a Competence Model to Aggregate Learning Knowledge Objects ................................................................. 836
Amal Zouaq, Roger Nkambou, and Claude Frasson

Using a Programmable Storytelling Robot to Motivate Learning Second Language ............................................... 841
Ying-Tsuan Lu, Chih-Wei Chang, and Gwo-Dong Chen

Using Chatbots for Network Management Training through Problem-Based Oriented Education ........................... 845
Michelle Denise Leonhardt, Liane Tarouco, Rosa Maria Vicari, Elder Rizzon Santos, and Michele dos Santos da Silva

Using Graphical Models to Unobtrusively Assess Student Performance in Educational Image Processing Activities .................................................................................................................. 848
Steven Tanimoto, Nathan Evans, and Adam Carlson

Using Machine Learning to Predict Learner Emotional State from Brainwaves ...................................................... 853
Alicia Heraz, Ryad Razaki, and Claude Frasson

Variety of Quality Experiences on Web-Based Courses ........................................................................................... 858
Kirsi Silius and Anne-Maritta Tervakari

VCSR: Video Content Summarization for Recommendation .................................................................................... 862
Chi-Cheng Tsai, Ching-I Chung, Yi-Ting Huang, Chia-Hsing Shen, Yu-Chieh Wu, and Jie-Chi Yang

Virtual Experiment using Cyber Assistant Professor: CAP ...................................................................................... 865
Yoshikazu Shindo and Hiroshi Matsuda

Virtual Laboratory with Force Feedback Device for Physics Collaborative Learning Using Lever Content .......................................................................................................................................................... 870
Hiroyuki Hamanaka, Yukihiro Matsubara, and Noriyuki Iwane

Visualizing Narrative Structures and Learning Style Information in Personalized e-Learning Systems .................................................................................................................................................................. 872
Fionán Peter Williams and Owen Conlan

Web-based Active e-Learning Tools for Automata Theory ...................................................................................... 877
Mohamed Hamada

WebLD: A Web Portal to Design IMS LD Units of Learning ................................................................................... 880
Eduardo Sánchez, Manuel Lama, Ricardo R. Amorim, and Angel Negrete

Which are the Best e-learning Tools for an Engineering Degree in the European Higher Education Area? ............ 882
Lluís Vicent, Guillem Bou, Xavier Àvila, Jordi Riera, José A. Montero, and Jaume Anguera

Zing Em: A Web-Based Likert-scale Student-Team Peer Evaluation Tool .............................................................. 887
Brent N. Reeves

Panel: Preparing Coming Generations of Educational Technologists: Technology, Pedagogy and Curricula—Changes and Challenges

Preparing Coming Generations of Educational Technologists: Technology, Pedagogy and Curricula—Changes and Challenges .................................................................................................................. 890
Roger Hartley, Kinshuk, and Rob Koper
Panel: In Search of Quality Learning Technologies for Online Distributed Classrooms

In Search of Quality Learning Technologies for Online Distributed Classrooms ..................................................... 893
    Madhumita Bhattacharya and Jon Dron
Lost in the Web 2.0 Jungle ........................................................................................................................................ 895
    Jon Dron and Madhumita Bhattacharya
Cultivating the Web 2.0 Jungle ................................................................................................................................. 897
    Madhumita Bhattacharya and Jon Dron
Diversity in Online Learners: Searching for Differences that May Matter ............................................................. 899
    Maggie Hartnett, Madhumita Bhattacharya, and Jon Dron
Interaction Analysis to Design Distributed Learning Environment ........................................................................... 901
    Laila Oubenaïssa-Giardina and Madhumita Bhattacharya
Does Interactivity with Content Enhance the Quality of Learning? ................................................................. 903
    Yasmin Bhattacharya and Madhumita Bhattacharya
Challenges for the Enhancement of Learning Activities on Electronic Discussion Forums: With Tools and Educational Programs ........................................................................................................... 905
    Satoru Fujitani‘Constructive Alignment’ and Learning Technologies: Some Implications for the Quality of Teaching and Learning in Higher Education ................................................................................ 907
    Mike Mimirinis
Inspectable Collaborations in Online Distributed Classrooms .................................................................................. 909
    Vive Kumar
E-portfolio as Intercultural Cognitive Environment to Enhance Teachers’ Professional Development and Personal Growth .............................................................................................................................. 911
    Laïla Oubenaïssa-Giardina, Helen Hensler, and France Lacourse

Workshop: Advanced Learning Technologies for Disabled and Non-Disabled People

Training of Speechreading for Severely Hearing-Impaired Persons by Human and Computer .................................. 913
    Hans-Heinrich Bothe
Mathematical Working Environments for the Blind: What is Needed Now? ......................................................... 915
    Dominique Archambault and Bernhard Stöger
Teaching Science Subjects to Blind Students ............................................................................................................... 917
    Dónal Fitzpatrick
A User-Centered Approach for Developing Advanced Learning Technologies Based on the Comprehensive Assistive Technology Model .................................................................................................. 919
    Marion A. Hersh and Michael A. Johnson
Workshop: Machine-Mediated Multimodal Communication (M3C)

Machine-Mediated Communication of Information ....................................................921
Adel Elsayed

Communication and Design in Multimodal Presentations ........................................923
Roger Hartley, Adel Elsayed, and Milena Pesheva

Dimensions of Media Object Comprehensibility ..........................................................925
Lawrie Hunter

Cooperative Picture Card Dictionary Authoring System for Communicative Language Learning .................................................................927
Masahiro Yachi

Applying Web Usage Mining Techniques to Discover Potential Browsing Problems of Users .................................................................929
I-Hsien Ting, Chris Kimble, and Daniel Kudenko

Semantic Processing for Text Mapping onto Information Space ...................................931
Weiqiang Ou and Adel Elsayed

Workshop: Educational Data Mining @ ICALT07 (EDM@ICALT07)

Workshop on Educational Data Mining @ ICALT07 (EDM@ICALT07) .............................................................933
Joseph E. Beck, Toon Calders, Mykola Pechenizkiy, and Silvia Rita Viola

A Outliers Analysis of Learner’s Data based on User Interface Behaviors ..................935
Yong Se Kim, Tae Bok Yoon, Hyun Jin Cha, Young Mo Jung, Eric Wang, and Jee Hyong Lee

A Framework for Using Web Usage Mining to Personalise E-learning ..........................937
Hafidh Ba-Omar, Ilias Petrounias, and Fahad Anwar

User Session Models for Educational Systems Based on Multiple Knowledge Structures .................................................................939
Judit Jassó and Alfredo Milani

Analyzing the Data Collected by Programming Tutors that Provide Post-Practice Reflection .................................................................941
Amruth Kumar and Peter Rutigliano

Tutorials

Authoring of Adaptive Educational Hypermedia ..........................................................943
Alexandra Cristea

Innovations in e-Pedagogy .............................................................................................945
Vive Kumar

Creating E-portfolio with OSP .....................................................................................947
Madhumita Bhattacharya and Mike Mimiris

Author Index