Proceedings of E-Learn 2002
World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education

October 15-19, 2002; Montréal, Canada
Selecting a Course Management System .................................................................................................................. 2051
Robert Price, Texas Tech University, USA

Building Worldwide Mentoring Tools: Content Analysis of Visited Web Page and Matching ........................................................................................................................................................................... 2055
Jared Luxenberg, Curtiss Priest, Center for Information, Technology & Society, USA

Using Animated Pedagogical Agents to Teach Entomology ........................................................................................... 2059
Haiyu Qi, University of Maryland, USA; Juan E. Gilbert, J. Wayne Brewer, Auburn University, USA

Open Goal-Based Scenarios: An Architecture for Hybrid Learning Environments .................................................. 2063
Lin Qiu, Christopher Riesbeck, Northwestern University, USA

Making your Online Learning Environment a Success - Clemson University's Approach ........................................ 2067
Carla Rathbone, Clemson University, USA

The magic of making e-learning work in Africa .................................................................................................................. 2070
Jena Raubenheimer, eDegree, South Africa

Life on the Bleeding Edge: How Emerging Technologies Can Help New Teachers ............................................ 2074
Pamela Redmond, University of San Francisco, USA; David Georgi, California State University, Bakersfield, USA

Diversify, diversify, diversify! Why Gender Mainstreaming in educational media does not mean one size fits all ........................................................................................................................................................................................................... 2076
Bernd Remmele, Bernhard Nett, Frank Roehr, Britta Schinzel, Benjamin Stingl, Tanja Walloschke, Institute for Computer Science and Social Studies, University of Freiburg, Germany

Faculty Rewards and Incentives for E-Learning ............................................................................................................. 2080
Judi Repman, Randy Carlson, Elizabeth Downs, Georgia Southern University, USA

Empowerment Through Equitable Access: Middle School Students Developing Strategic Skills .................................. 2084
Thomas Reynolds, Peter Serdyukov, National University, USA

A Multi-Disciplinary Framework for the Design and Evaluation of Computer Supported Learning-Environments ........................................................................................................................................................................... 2086
Christoph Richter, Heidrun Allert, Learning Lab Lower Saxony, Germany

INCLUSIVE WORKFORCE DEVELOPMENT IN AN E-LEARNING WORLD ................................................................ 2090
Robert Robert, Western Michigan University, USA

A Multi Dimensional Project to Assess Student Information Competence Skills .................................................. 2094
Gordon Smith, Ilene Rockman, The California State University, USA

Virtual Community of Teachers in Switzerland – Are Teachers Ready to Share Online? ...................................... 2098
Andreas Röllinghoff, University of Applied Science - HTA-BE, Switzerland

The Concord E-Learning Model ..................................................................................................................................... 2104
Raymond Rose, Concord Consortium, USA

A Framework for Analyzing Online Learning in Post-secondary Education ............................................................ 2107
Leona Rousseau, Lethbridge College, Canada

Asynchronous learning environment for language, communication and culture study ......................................... 2111
Irina Rozina, Institute Of Management, Business and Law, Russian Federation

Home Workstation Ergonomics for the Online Learner ............................................................................................... 2115
Carolyn Rude-Parkins, University of Louisville, USA

Educational Technology in the Classroom: Emphasizing Process Before Training .............................................. 2119
Linda Runyon, George Semich, Robert Morris University, USA

A custom fit ...................................................................................................................................................................... 2122
John Ruttner, John Ruttner, CSUSB, USA

The Internet in Education: Two Different Examples ................................................................................................. 2125
Nicoletta Sala, University of Italian Switzerland, Switzerland

MISTRAL: an intelligent platform for distance education incorporating teaching strategies which adapt to students' learning styles ................................................................. 2129
Pedro Salcedo, Universidad de Concepción, Chile

Integration of Cognitive Theories into the Instructional Design of Educational Technologies .............................................. 2133
Danielle Salomone, Teachers College, Columbia University, USA

Evaluation of a Website with Learning Objects for Cell Biology .............................................................................. 2137
Christian Floto, Thomas Huk, Technische Universität Braunschweig, Germany; Uwe Sander, IWF Wissen und Medien gGmbH, Germany
Workplace Environments Are Evolving: Is Adult E-Learning Keeping Pace? .......................... 2140
Michael Scheuermann, Drexel University, USA

E-Commerce Privacy and Security: Degree of Awareness Among College Students ................. 2142
Maria Canabal, Klaus Schmidt, Illinois State University, USA

A Dose of Reality in the Classroom ................................................................. 2146
Diane Schuch-Miller, Marie Lee, Greenfield Coalition, USA

Color Coding Reduces Medical Error: e-Learning and the Blended Approach ......................... 2150
Terry Seelinger, MHA, Duke Univ. Health System, Corp. Info. Services, USA; Karen Frush, MD, Medical Director Children’s Services, Duke University Medical Center, USA

Reusable Learning Objects: Critique & Future Directions ............................................. 2154
Steven Shaw, Concordia University, Canada; Sarah Sniderman, Silverspaces Co., Canada

The Design of Interactive Applets for Mathematics Education ........................................ 2158
David Sher, Mat/Sta/CMP dept., Nassau Community College, USA

An Evaluative Study of a Distance Education Degree Program Using Focus Groups .............. 2161
Ching-Chun Shih, Dan Dobill, Ann Thompson, Iowa State University, USA

First Encounters: Using Educational Multimedia as a Learning Tool In the Traditional Classroom ................................................................. 2165
Ann Shortridge, George Sabo, University of Arkansas, Fayetteville, USA

Enhancing Instructional Development Processes for E-Learning ....................................... 2171
Deborah Jones, RMIT University, Australia; Rod Sims, Deakin University, Australia

Disaster Medicine Online: An Internet Based Modular Curriculum For Health Care Professionals ................................................................. 2175
Bryan Singleton, University of Alberta, Division of Emergency Medicine and City of Edmonton Emergency Response Department, Canada

Interactive Graphic Organizers ....................................................................................... 2178
Thilla Sivakumaran, William Wishart, University of Tennessee, USA

Teaching Creativity in Computer Science to the Playstation Generation ...................... 2180
Stephen Skelton, UNITEC, New Zealand

Forming Community with Technology: The Degree Program Planner ................................ 2184
Deborah Smith, Empire State College, USA

Web-based support for “Teaching for Learning” ................................................................ 2187
Denise Chalmers, University of Queensland, Australia; Ronald Smith, Paul Lam, City University of Hong Kong, Hong Kong

The Links Project: A USDE Initiative ............................................................................ 2191
Nancy Gotcher, Sharla Snider, Texas Woman’s University, USA

Could We Smell the Cooking over the Internet? An Interactive E-Learning Solution for Home Economics Using Synchronized Multimedia ............................................ 2195
Theresa Lai, Simon So, Hong Kong Institute of Education, Hong Kong

LessonML: A Markup Language to Facilitate the Exchange and Presentation of Lesson Plans .................................................................................................................. 2199
Simon So, Hong Kong Institute of Education, Hong Kong

Designing Attractive Virtual Spaces for E-Learning ..................................................... 2203
Yuki Sogabe, Asahi University, Japan

Web based Training on Radiographic Testing ................................................................ 2207
Suwanna Sombunsukho, King Mongkut’s University, Thailand

Multimode Virtual Consulting (MVC) Environment as an Alternative to Faculty Office Hours: A Work-in-Progress Report ................................................................. 2210
Peter Soreau, ORT Braude Academic Engineering College, Israel

LABORATORY: A Library of Lab Set-ups ....................................................................... 2214
Laurent VAN HAVERBEKE, RUCA-University of Antwerp, Belgium; Hugo Bohets, Tor-Björn Johansson, Herbert Peremans, UFSIA-University of Antwerp, Belgium; Karel SOUDAN, UFSIA - University of Antwerp, Belgium

EduBITE: Educating Business and Information Technologies ........................................... 2218
Claudia Steinberger, University Klagenfurt, Austria; Judit Bajnai, University Vienna, Austria; Wolfgang Ortner, FH Joanneum, Austria; Michael Schuh, FH Wiener Neustadt, Austria; Manfred Vogt, FH Vorarlberg, Austria
A user-oriented information system for Teleservice in trouble shooting of mobile construction machines ................................................................. 2222
Klaus Henning, Arne Simon, Achim Streit, Department of Computer Science in Mechanical Engineering, Germany

Automatic Videoing a Normal Classroom for a Distant Lecture with a Recording
Function of a Blackboard ........................................................................... 2226
Akira Suganuma, Shuichiro Nishigori, Kyushu University, Japan

Linux and the Rise of Open Source Software: the Indian Perspective ................................................................. 2230
Yogesh Suman, NISTADS, India

Exploring Tools and Methods for Work-Integrated Learning ................................................................. 2234
Lars Svensson, Ulrika Snis, Kerstin Grunden, Tomas Lindroth, Stefan Nilsson, Pia Stahl-Falck, Christian Östlund, Laboratorium for Interaction Technology, HTU, Sweden; Carsten Sorensen, Laboratorium for Interaction Technology, HTU and LSE, UK

Facilitating on iTV: A Call for Broadcast Communication Style & Voice Management ............................... 2238
Sharifah NurAnthasha Syed Ahmad, Multimedia University, Malaysia

The Use of Style Guides in the Development of Online Documentation and Computer-Based Training: A Survey ................................................................. 2242
Michael Szabo, University of Alberta, Canada

Teaching in An e-Classroom: How To Be An Effective Teacher to E-Learners ............................................ 2246
Fateeh Taghaboni-Dutta, Betty Velthouse, University of Michigan - Flint, USA

Web-based Supplementary Material to Complement Classroom Teaching - A Case Study ................................................................. 2250
Toshitaka Tamura, Waseda University, Japan

Bridging Theory and Practice Through IT: The case of On-Line Trading in Corporate Finance .................. 2254
Ivy Tan, Centre for Instructional Technology, Singapore; Dr Yew Kee Ho, National University of Singapore, School of Business, Singapore

The selection and implementation of computer mediated communication software for virtual peer collaboration. Lessons learnt ................................................................. 2258
Sharin Bin Mohammad Sani, Melvyn Song, Ivy Tan, National University of Singapore, Singapore

Effects of Collaborative and e-Learning on Skill Acquisition and Retention for Computer-based Cognitive Tasks ................................................................. 2261
Kuo-Hao Tang, Feng Chia University, Taiwan

Using the Knowledge Modeling Approach to Assess Effectiveness of Electronic Learning ................................. 2265
Stephen Gilbert Taylor, Champlain Regional College, Canada

Standard Assessment Components for e-Learning Materials ........................................................................... 2268
Dimitar Tenev, Technical University, Department of Computer Science, Bulgaria; Vasil Vasilev, Technical University, Department of Electronics, Bulgaria; Tania Vassileva, Technical University, Bulgaria; Vassiliy Tchoumatchenko, Technical; University, Department of Electronics, Bulgaria

Key Steps for Developing E-learning Events - interactive courseware development ........................................ 2272
Tenku Norishah Tenku Shariman, Multimedia University, Malaysia

Towards a total learning environment for the distanced adult learner ................................................................. 2276
sarah teo, ICUS Pte Ltd, Singapore

CD-ROM Enabled Web Sites ........................................................................... 2280
Thane Terrill, Teachers College, Columbia University, USA

Extending Distance Learning Courses with CD-ROM Media ........................................................................... 2282
Thane Terrill, Teachers College, Columbia University, USA

The University of London eUniversity project: collaboration and cultural change in a complex institution ........................................................................... 2285
Cate Thomas, University of London External Programme, UK

Smart E-Classrooms, Traditional Classrooms and Critical Thinking ................................................................. 2288
Jennifer Thomas, Pace University, USA

Using Web-Based Software in Teacher Education Courses ........................................................................... 2292
Kelli Thomas, University of Kansas, USA; Thomas Matthew, Central Missouri State University, USA; David Hofmeister, Indiana State University, USA

Introducing Blended Learning to the South West of England ........................................................................... 2296
Dafydd Thorne, Exeter College, UK
The Potential of Virtual Reality to Improve Education on Psychosis

Jennifer Tichon, The University of Queensland, Australia

E-Learning that Adapts to the Learner

Jutta Treviranus, RCAT, University of Toronto, Canada

Using Electronic Portfolios in Teacher Performance Assessment

Burcu Tunca, George Washington University, USA

New Roles for Teachers and Learners in Higher Education

JoAnn Ullery, South Dakota State University, USA

The Poor Man's Eyetracker Tool of ActiveMath

Carsten Ullrich, Erica Melis, German Research Center for Artificial Intelligence, Germany

Health Sciences Students' Perceptions of Online Problem-Based Learning

Ruta Valaitis, Wendy Sword, McMaster University, Canada; Bob Jones, Sheridan College, Canada; Andrea Hodges, Hamilton Social and Public Health Services, Canada

How To Debit Their Scores? An ICT Solution To Assess Accountancy Students

Dirk Vanderbist, Jan Vanthienen, Katholieke Universiteit Leuven, Belgium

An Infrastructure of Possibilities: Distance Learning at the University of the Sacred Heart

Antonio Vantaggiato, University of the Sacred Heart, USA

A Generic Platform for Presenting Learning Material: Praktix Presentation Viewer

Jan Vanthienen, Dirk Vanderbist, Katholieke Universiteit Leuven, Belgium

The use of open and distance education in facilitating changes in managerial development: the Mexico experience

José G Vargas-Hernández, Centro Universitario del Sur, Universidad de Guadalajara, Mexico

Integration of Hardware Experiments in e-Learning Systems

Vasil Vassilev, Technical University, Bulgaria; Ivan Furnadziev, Technical University, Department of Electronics, Bulgaria

Utilizing WebCT to Monitor Pre-Service Teachers’ Professional Development

Paul Vellom, University of Western Michigan, USA; John Mascain, Ohio Dominican University, USA

Aggregation and Reduction: Two design approaches for reusable instructional materials

Ranga Venkatachary, KnowledgeWindow Asia Pacific Pte Ltd, Singapore; J. Anton Ravindran, Genovate Solutions Pte Ltd, Singapore

Online Virtual Tutorials: Increasing Access To Peer To Peer Tutoring

Ray Walshe, Department of Computing, Dublin City University, Ireland

Student Perceptions Toward Using Instant Messenger to Facilitate eLearning Online Interaction in Conventional Versus Virtual Graduate Classrooms

Lih-Ching Chen Wang, Cleveland State University, USA

Electronic Cognitive Apprenticeships: Building Students’ Understanding of ID

Ling Wang, Hua Bai, SungHee Park, Purdue University, USA

Impact of Vicarious Learning Experiences and Goal Setting on Preservice Teachers’ Self-Efficacy for Technology Integration

Ling Wang, Purdue University, USA

Gender, Discourse Style, and Equal Participation in Online Learning

Minjuan Wang, Christina Sierra, San Diego State University, USA

Virtual Projects in Distributed Learning Environments

J. Michael Spector, Xuemei Wang, Syracuse University, USA

New Global Initiatives in E-Learning from MIT

Janet Wasserstein, MIT Center for Advanced Educational Services, USA

A Development of Multi-lingual Web-Based E-Mail Client Developed by JavaServet Technologies

Kenzi Watanabe, Saga University, Japan

A Knowledge Handling Model in Educational Activity

Toyohide Watanabe, Nagoya University, Japan

Missouri/Taiwan High Tech-High Touch Excursion

John Wedman, Laura Diggs, University of Missouri, USA

A Mobile Augmented Reality Environment for Collaborative Learning and Training

Reiner Wichert, Computer Graphics Center (ZGDV), Germany
The Effect of Hypertext Structure on Recall .......................................................... 2390
Kay Wijekumar, Brooks Canavesi, The Pennsylvania State University Beaver, USA

Information Technology’s Role in Biochemical Systematics .................................. 2393
James D. Willett, George Mason University, USA; David D. Keefe, SRI International, USA

Web-Assisted Projects: Collaborative Learning in an Electronic Environment ........ 2397
Vicki Williams, Barry Williams, Penn State, USA

Adult Learners, Juvenile Behaviors: Constructive and disruptive ad hoc communities in higher education distance education. An analysis of synchronous and asynchronous settings .......................................................... 2400
Dee Anna Willis, Northwestern State University, USA

Cheating an Online Test: Methods and Reduction Strategies ............................... 2404
Joe Winslow, Coastal Carolina University, USA

Harborborough Community Learning Network - a Model for Community E-Learning .......................................................... 2408
David Wortley, Mass Mitec, UK

Web-based Learning from the Student’s Perspective ............................................. 2410
Linda Wright-Smith, Cameron University, USA

Teaching Resources for Fetal Echocardiography .................................................. 2414
Piotr Wroblewski, Wroblewski Consulting, USA; Krzysztof Wroblewski, University of Pennsylvania, USA; Zhi Yun Tian, Children’s Hospital of Philadelphia, USA

Implementing SCORM real issues and resolutions ................................................... 2418
Vincent Wu, Cerner Corporation, USA

A Trust Model for Distributed E-Learning Service Control ................................. 2419
Yuefei Xu, Larry Korba, National Research Council of Canada, Canada

Evaluation and Implementation of a Networked Multiple-Choice Question-Posing and Peer Assessment Learning System .......................................................... 2427
Fu-Yun Yu, National Cheng-Kung University, Taiwan

Impacts of the Anonymity Feature of Networked Synchronized Competition on Motivation and Interpersonal Relationships .......................................................... 2431
Fu-Yun Yu, National Cheng-Kung University, Taiwan; Yu-Hsin Liu, National Chi-Nan University, Taiwan; Chialing Han, National Cheng-Kung University, Taiwan; Tak-Wai Chan, National Central University, Taiwan

Developing Adaptive Hypermedia using an Extended Hierarchical Mixtures of Experts Approach .......................................................... 2435
JeongSu Yu, Dept. of Computer Education, Jeonju National university of Education, Korea (South)

Multimedia Application In Higher Education: Political Science .............................. 2439
YING YU, YU SISTERS MULTIMEDIA STUDIO, Canada; LUC DUHAMEL, UNIVERSITÉ DE MONTRÉAL, Canada

Handheld Computing in Education ........................................................................ 2442
Steve Yuen, The University of Southern Mississippi, USA; Patrivan Yuen, William Carey College, USA

Museum Satellites: Web Spaces for Learning .......................................................... 2445
Laura Zadoff, Danielle Kaplan, Stacey Hagreen, Teachers College, USA

Non-Linear Web Based (Nlwb) For Teaching 3d Computer Modelling ...................... 2448
Mohd Izani Zainal Abidin, Multimedia University, Malaysia; Aishah A.Razak, FCM, Malaysia

The Interactivity Issues in Using Blackboard ............................................................. 2452
Chenfeng Zhang, University of Massachusetts Boston, USA

Axes to classify learning Content Units .................................................................... 2454
Annett Zobel, Matthias Hupfer, Bauhaus-University Weimar, CogVis/ MMC, Germany

Evaluation of a Homegrown LCMS : All Work and No Play? ................................ 2457
Nanette Zorn, Terry Taylor, DePaul University Library, USA

A Web-Accessible Lab Equipment for Training Courses on Chip Design .................. 2461
Peter Roessler, Vienna University of Technology, Austria

INTERACTIVE SESSIONS

Technologies to Support Communities of Practice: Web Crossing for CpSquare Communities of Practice Workshop .......................................................... 2465
Bronwyn Stuckey, Queensland University of Technology, Australia; John D. Smith, Learning Alliance, USA
Technologies to Support Communities of Practice: A Community Information and Knowledge Exchange Tool to Support Organizational Readiness in the Public Sector .......... 2468
Thomas McKegney, Public Sector Communities of Practice Platform, Canada

Technologies to Support Communities of Practice: Dgroups ........................................ 2471
Shady Kanfi, Bellanet, Canada

Technologies to Support Communities of Practice: US Army: CompanyCommand.com AND PlatoonLeader.org ....................................................................................... 2473
Maj. Peter Kilner, United States Military Academy West Point, USA

Technologies to Support Communities of Practice: Network Analysis with I-know .......... 2474
Noshir Contractor, Andy Swarbrick, University of Illinois, USA

Online Media Juke-Box ..................................................................................................... 2475
Luca Botturi, USI-ICeF, Switzerland

Professional Development + Instruction + Minerals = A DVD that Rocks! ....................... 2477
Renee M. Eggers, Salvatore A. Sanders, Donna J. McNierney, Raymond E. Beiersdorfer, Youngstown State University, USA

Developing Online Courses using Robohelp ................................................................ 2480
Daniel Farkas, Pace University, USA; Narayan Murthy, Pace University, USA

Designing Web-based Collaborative Tools for Teachers .................................................. 2481
Yitna Firdyiwek, University of Virginia, USA

Developing and Authoring Multimedia Presentations using Trivantis .......................... 2482
Ted Fowler, Ted Fowler, University of Cincinnati, USA

The Challenge of Turning Professional Development into Professional Practice .......... 2484
Sharon Friesen, Pat Clifford, Galileo Educational Network, Canada

SNOW Project: A Web-based resource for educators of learners with special needs ...... 2487
Craig Hegins, Adaptive Technology Resource Centre, Canada

Motivate Learners to Change ......................................................................................... 2489
Peter Hess, CHANGE Partners, Inc., USA

Best Practices in Blended eLearning ............................................................................. 2491
Gregory Dunkling, The University of Vermont, USA; Jennifer Hofmann, InSync Training Synergy, USA

Online Professional Development in Educational Technology: Star-Online ................. 2494
Patty LeBlanc, Stetson University, USA; Angelique Nasah, Bethune Cookman College, USA

Teaching the Rule of Thirds for Photography Interactively through Flash .................. 2497
Susan Lister, Higher Colleges of Technology, Canada

Convergent Media in a Standards Based Mathematics Program for Middle School .... 2500
Peggy Meathenia, Lufkin Independent School District, USA; Deborah Jolly, Texas A&M University, USA

Community Capacity Building with an E-Learning Strategy ........................................ 2502
Alan Norman, Connect New Brunswick, Canada

E-learning in Spanish: a language and culture course and a placement test ................ 2505
Jessica Payeras, Evelyne Diabate, Université du Québec à Montréal, Canada

Exploring Science Education Using Handheld Computers and Data Collection Tools .... 2508
Raymond Rose, Concord Consortium, USA

Information Brokering for the Adaptive Learning Environment .................................... 2510
Marcus Specht, Marcus Specht, Fraunhofer FIT, Germany

Social Justice: A Portal for Educators ............................................................................ 2513
Sharon Tettegah, University of Illinois, Urbana Champaign, USA

Renee Wallace, Florida A&M University, USA

VIDEO FESTIVAL

A demonstration of exemplary pedagogies designed for low-budget producers and low-tech learners ................................................................. 2518
Lisa Holstrom, University of Cincinnati, USA

Virtual Field Experiences for Pre-Service Teachers ......................................................... 2520
Patty LeBlanc, Elizabeth Heins, Stetson University, USA
An Online Digital Video Library to Use as a Knowledge Base for Teacher Education ........................................... 2522
Paul Skiera, Deborah Stirling, Chris Lamont, Arizona State University, USA

Creating a computerized multimedia Chinese language lesson from authentic web text, using the KEY 4.0 software (for both PC and Mac) ................................................................. 2524
Sheri Zhang, University of Ottawa, Canada

POSTER/DEMONSTRATION PAPERS

Promoting Web-Enhanced and Web-Based Courses by Focusing on Technology Integration in Higher Education ........................................................... 2527
Jason Abbitt, John Davis, Michael Odell, University of Idaho, USA

Using Discovery-Based Online Learning in the Teaching of Computing ................................................................. 2529
Ken Abernethy, Furman University, USA

Cost Effective Real-Time Video Conferencing for Instruction and Collaborative Learning in Music and the Performing Arts Via Next Generation Internet powered virtual laboratory environment ......................................................... 2531
Sterlin Adams, Florida A&M University, USA

Is the Integration of CALL into Language Curriculum affected by the environments surrounding it? ............................................................... 2533
Ibrahim Ahmed, International.I University-Malaysia, Malaysia

Information Technology And Medical Students At Sultan Qaboos University ......................................................... 2535
Adekunle Akinyemi, SULTAN QABOOS UNIVERSITY, Oman

Faculty Adoption of Technology: The End User as the Determinant ........................................................................ 2537
ahmed ali, St cloud state university, USA

A Pilot Methodology for Teaching the Course “Introduction to the Information Society” at the University of Cyprus ................................................................. 2539
Panagiotes Anastasiades, Panagiotes Anastasiades, University of Cyprus, Cyprus

Assessment of understanding: a case study ............................................................. 2542
Vytautas Reklaitis, Graduate School of Information Systems, the University of Electro-Communications, Tokyo, Japan; Kacy's Baniuls, Kaunas University of Technology, Lithuania

Online Writing as a Form of Electronic Communication in a Second Year Biology Course .... 2544
Michael Barbour, Michael Collins, Memorial University of Newfoundland, Canada

Does web-enhanced instruction increase student satisfaction with curriculum? ................................................... 2546
Sherry Batson, Connie Ruiz, Amy Pemberton-Shows, Department of Family & Consumer Sciences, USA; Paula Nichols, Education Technology Center for Distance Learning & Professional Development, USA

From Campus to Cyberspace: The Transition of Classroom Faculty to Distance Education ................................................................. 2548
Michael Beaudoin, University of New England, USA

Collaborating to ensure online offerings and on campus courses have content agreement ...................................................... 2549
Timothy Blum, University of Wyoming Lab School Albany County Public Schools, USA; Dr. Barbara Chatton, Dr. D.J. Yocom, University of Wyoming, USA

Evaluation of the VR-project in Helsingborg, Sweden ............................................................... 2551
Lennart Bolin, Förrvaltning för Gymnasie- och Vuxenutbildning, Sweden

Designing and redesigning the WebCT part of the undergraduate course “Teaching and Learning with Music Technology ........................................................................ 2553
Marie-Michele Boulet, Faculté de musique - Université Laval, Canada

Implementation of java applet solution for e-learning in physics ................................................................. 2555
Said Boutiche, Bechar University, Algeria

Switching Sides of the Desk: Two Instructional Designers Discuss Their Teaching Experiences ........................................................................ 2557
Barbara Brazon, Penn State Hazleton Campus, USA; Mary Lynn Brannon, Penn State Worthington Scranton Campus, USA

A Real-Life Paradigm Example of Designing and Delivering a Successful Hands-on Online Learning Experience for Members of a University Task Force on Technology-Assisted Education ........................................................................ 2559
Anne-Marie Brinsmead, University of Toronto, Canada
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next Generation Courseware: Custom Learning Environments Integrating Research and Collaboration</td>
<td>2605</td>
</tr>
<tr>
<td>Glenn Golden, et. al., Media Union/ School of Information, USA</td>
<td></td>
</tr>
<tr>
<td>Online supplemental instruction and assessment of OOP (object-oriented programming) concepts</td>
<td>2607</td>
</tr>
<tr>
<td>Kenton Graviss, Kenton Graviss, Indiana University Southeast, USA</td>
<td></td>
</tr>
<tr>
<td>Developing Reusable Learning Design Resources</td>
<td>2609</td>
</tr>
<tr>
<td>Barry Harper, University of Wollongong, Australia; Ron Oliver, Edith Cowan University, Australia; John Hedberg, Sandra Wills, Shirley Agostinho, University of Wollongong, Australia</td>
<td></td>
</tr>
<tr>
<td>Development of Chinese language multimedia teaching material with a partial perception system utilizing 3D virtual space</td>
<td>2611</td>
</tr>
<tr>
<td>Hiroaki Hashiguchi, Waseda University, Japan</td>
<td></td>
</tr>
<tr>
<td>Building a Community of Learners and Encouraging Discussions in a Purely On-Line Course That is Quantitative in Nature</td>
<td>2613</td>
</tr>
<tr>
<td>Jay Holmen, University of Wisconsin—Eau Claire, USA</td>
<td></td>
</tr>
<tr>
<td>The Effect of Speech and Pointing Conditions on the Comprehension and Recall Performance in a Multimedia Presentation</td>
<td>2615</td>
</tr>
<tr>
<td>Cholyeun Hongpaibanwiwat, Department of Computer Science, Thammasat University, Thailand; Michael Lewis, School of Information Sciences, University of Pittsburgh, USA</td>
<td></td>
</tr>
<tr>
<td>Ocean View and River Run: New Internet Tools For Facilitating Scientific Inquiry</td>
<td>2617</td>
</tr>
<tr>
<td>Richard Huber, University of North Carolina Wilmington, USA</td>
<td></td>
</tr>
<tr>
<td>A Visual Tool to Support Personal Management of Information on WWW</td>
<td>2618</td>
</tr>
<tr>
<td>Akiko Inaba, Takanori Yamamoto, ISIR, Osaka University, Japan</td>
<td></td>
</tr>
<tr>
<td>The formation of experts in the handling of the TIC. The case of the Mexican librarians</td>
<td>2620</td>
</tr>
<tr>
<td>Maribeth Johnson, Instituto Mexicano de la Administración del Conocimiento A.C., Mexico</td>
<td></td>
</tr>
<tr>
<td>Successful Strategies: Collaborative Learning for Blended Courses</td>
<td>2622</td>
</tr>
<tr>
<td>Claudine Keenan, The Graduate Center of Marlboro College, USA</td>
<td></td>
</tr>
<tr>
<td>Developing a Virtual Master of Engineering at UTS: A case study</td>
<td>2623</td>
</tr>
<tr>
<td>Tom Anderson, Homa Koosha, Jafar Madadnia, University of Technology, Sydney (UTS), Australia</td>
<td></td>
</tr>
<tr>
<td>Developing of Assessment Techniques in Learner-Focused Online Subjects</td>
<td>2625</td>
</tr>
<tr>
<td>Jafar Madadnia, Homa Koosha, University of Technology, Sydney (UTS), Australia</td>
<td></td>
</tr>
<tr>
<td>Educators Experiences And Lessons In E-Learning</td>
<td>2627</td>
</tr>
<tr>
<td>Hasan Akpolat, Homa Koosha, Tom Anderson, Jafar Madadnia, University of Technology, Sydney (UTS), Australia</td>
<td></td>
</tr>
<tr>
<td>Data driven inquiry practices</td>
<td>2629</td>
</tr>
<tr>
<td>Ravinder Koul, Penn State University-Great Valley, USA</td>
<td></td>
</tr>
<tr>
<td>Professional Development for Mentoring Interns and Teaching English Language Learning Students in the Mainstream Classrooms through the Use of a Website</td>
<td>2630</td>
</tr>
<tr>
<td>Nathalie Lahire, The George Washington University, USA</td>
<td></td>
</tr>
<tr>
<td>Automatic Problem Generation for the Pilot Training</td>
<td>2632</td>
</tr>
<tr>
<td>Soldatova Larisa, Vladivostok State University of Economy and Service, Russian Federation</td>
<td></td>
</tr>
<tr>
<td>Adaptive Virtual Learning Environments And Mediated Learning Experience</td>
<td>2634</td>
</tr>
<tr>
<td>Raija Latva-Karjanmaa, University of Helsinki, Finland</td>
<td></td>
</tr>
<tr>
<td>Alternative Communication Methods in Online Settings: A Study of Demands and Effects</td>
<td>2637</td>
</tr>
<tr>
<td>Matthew Leavitt, Michael Spector, Peter Gray, Noorazah Reduan, Radha Ganesan, Syracuse University, USA</td>
<td></td>
</tr>
<tr>
<td>Using Multi-Media Technology to Teach Foundational Courses in Western Civilization</td>
<td>2639</td>
</tr>
<tr>
<td>David Leinweber, Oxford College of Emory University, USA</td>
<td></td>
</tr>
<tr>
<td>A WYSIWYG editor for a web writing course</td>
<td>2641</td>
</tr>
<tr>
<td>Ting-Wen Liang, Wenzao Ursuline Collage of Languages, Taiwan</td>
<td></td>
</tr>
<tr>
<td>Networked portfolio system and students’ learning effect</td>
<td>2643</td>
</tr>
<tr>
<td>Eric Zhi-Feng Liu, Ming Hsin University of Science and Technology, Taiwan</td>
<td></td>
</tr>
<tr>
<td>To propose an algorithm for team forming: Simulated annealing K team-forming algorithm for heterogeneous grouping</td>
<td>2645</td>
</tr>
<tr>
<td>Eric Zhi-Feng Liu, Ming Hsin University of Science and Technology, Taiwan</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Building a Model of Collaborative Learning Environment</td>
<td>Thereza Padilha, CEULP-ULBRA, Brazil</td>
</tr>
<tr>
<td>Management Of The Educational Process</td>
<td>Pedro Paraíso, UCP-Centro Regional das Beiras, Portugal; Paulo Ribeiro, UCP- Centro Regional das Beiras, Portugal; Ciro Martins, Werner Schneider, UCP-Centro Regional das Beiras, Portugal</td>
</tr>
<tr>
<td>Designing for a moving target</td>
<td>Beverly Pasian, Bodec Corp., Canada; Sandi Barber, Northern Alberta Institute of Technology, Canada; Kathy Siedlaczek, Seneca College, Canada</td>
</tr>
<tr>
<td>eInstruction: A Gateway to Effective eLearn</td>
<td>Kalpeshkumar Pathak, Secondary Teachers Training College, India</td>
</tr>
<tr>
<td>Blended WBI: A Meteorology Mixture</td>
<td>David Pedersen, Embry Riddle Aeronautical University, USA</td>
</tr>
<tr>
<td>Empowering Learners Through Digital Education In Urban Environments: Using Internet-Based Teacher Education Portals</td>
<td>Joyce Pittman, The University of Cincinnati, USA</td>
</tr>
<tr>
<td>Region-based Image Retrieval System using Color Spatial Relationship</td>
<td>Seinosuke Narita, School of Science and Engineering, Waseda University, Japan; Nucharee Premchaiswadi, Faculty of Information Technology, Dharakipundit University, Thailand; Wichian Premchaiswadi, Surangkana Rawongyot, Faculty of Information Technology, King Mongkut’s Institute of Technology Ladkrabang, Thailand; Wichai Premchaiswadi, Faculty of Engineering, Khon Kaen University, Thailand; Worapot Keesuradet, Faculty of Information Technology, King Mongkut’s Institute of Technology Ladkrabang, Thailand</td>
</tr>
<tr>
<td>Text-to-Speech in Learning Thai Language for Foreigners</td>
<td>Seinosuke Narita, School of Science and Engineering, Waseda University, Japan; Wichian Premchaiswadi, Faculty of Information Technology, King Mongkut’s Institute of Technology Ladkrabang, Thailand; Nucharee Premchaiswadi, Faculty of Information Technology, Dharakipundit University, Thailand; Wanida Chawangwongsanugul, Prachub Vanitchatchavan, Faculty of Information Technology, King Mongkut’s Institute of Technology Ladkrabang, Thailand; Wichai Premchaiswadi, Faculty of Engineering, Khon Kaen University, Thailand</td>
</tr>
<tr>
<td>CyberTutor, a Socratic Web-based Homework Tutor</td>
<td>David Kokorowski, David Pritchard, Elsa-Sofia Morote, MIT, USA</td>
</tr>
<tr>
<td>Technology Driven Course Redesign in the Humanities</td>
<td>Craig Rademacher, Jim Wohlpart, Florida Gulf Coast University, USA</td>
</tr>
<tr>
<td>Using WebQuest in project-based learning</td>
<td>Jorge Joel Reyes-Méndez, Universidad Autónoma Metropolitana campus Xochimilco, Mexico</td>
</tr>
<tr>
<td>Issues in the development of online teacher education</td>
<td>George Gadanidis, Sharon Rich, University of Western Ontario, Canada</td>
</tr>
<tr>
<td>Creating an Effective Training Model: One Size Does Not Fit All</td>
<td>Chris Roberts, Wright State University, USA</td>
</tr>
<tr>
<td>Using Knowledge Levels with AHA! for Discovering Interesting Relationship</td>
<td>Cristobal Romero, Carlos de Castro, Sebastian Ventura, Universidad de Cordoba, Spain; Paul De Bra, Eindhoven University of Technology, Netherlands</td>
</tr>
<tr>
<td>Essential Elements: Prepare, Design, and Teach Your Online Course</td>
<td>Raymond Rose, Alese Smith, Concord Consortium, USA</td>
</tr>
<tr>
<td>Online Education for Adults: An Andragogic Approach</td>
<td>Mark Ryan, National University, USA; Peter Serdyukov, National University, USA</td>
</tr>
<tr>
<td>Corporate Education - A new vision of training and development</td>
<td>Juarez Sagebin Correa, Carlos Eduardo Sabrito, Brasil Telecom, Brazil</td>
</tr>
<tr>
<td>Student Performance Analysis Using Bivariate Correlation For Higher Academic</td>
<td>Guven Sagdic, Dukuz Eylul University, Turkey</td>
</tr>
<tr>
<td>The Use of The Internet in High School and University</td>
<td>Nicoletta Sala, University of Italian Switzerland, Switzerland</td>
</tr>
<tr>
<td>Using CMC to Build Middle School Communities Among Peers with Mild/Moderate Disabilities</td>
<td>Hannah Sellers, Eastern CT State University, USA</td>
</tr>
</tbody>
</table>
Technology, Teachers, and PT3 .......................................................... 2734
  John Sfondilias, University of Illinois, USA
Using Speech to Enhance a Math Education Applet .................................. 2735
  David Sher, Nassau Community College, USA
Development of Computer-Based Instructional System on Introductory Statistics .... 2737
  Minsuk Shim, University of Rhode Island, USA; Sunguk Shim, South Kingstown High School, USA
A Blended Learning Approach To Faculty Development: Using The Or-Cat Model For
The I3 Training Series ................................................................. 2739
  Bernadette Sibuma, Teachers College, Columbia University, USA
MathThread: Mathematics formulas and diagrams in Distance Learning threaded
discussions ................................................................. 2741
  Glenn Smith, David Ferguson, State University of New York at Stony Brook, USA
Automated Study Questions for Medical Students Using the Web .................. 2743
  Russ Smith, Virginia Black, NYU School of Medicine, USA
The Links Project: Development, Implementation, And Institutionalization ........ 2745
  Nancy Gotcher, Sharla Snider, Texas Woman’s University, USA
Competencies for Classroom and Online Teaching: Development and Validation .... 2747
  Roderick Sims, Deakin University, Australia; Michael Spector, Syracuse University, USA; James Klein, Arizona State University, USA; Dennis Fields, St. Cloud State University, USA; Barbara Grabowski, Penn State University, USA
The Konstanz Internet Solar Cell Experiment ...................................... 2749
  Martin Stachel, University of Konstanz, Germany
Redefining Web Design Education: An Interdisciplinary Convergence to Optimally
Prepare Web Authors and Designer .................................................. 2751
  R. Brian Stone, The Ohio State University, USA
E-Learning and International Education: Fulfilling the Promise of the Virtual Classroom.... 2753
  Florence Sullivan, Teachers College, Columbia University, USA
EVA_pm: Towards Project-Based e-Learning ....................................... 2755
  Paraskevi Synteta, Daniel Schneider, TECFA, FAPSE, University of Geneva, Switzerland, Switzerland
The Memphis Educational Computer Connectivity Alliance (MECCA) Young Scholars
Program (MYS): Using e-learning tools to export best practices of high school
summer enrichment programs to other institutions .................................. 2757
  Larry Tague, Arthur Geller, University of Tennessee Health Science Center, USA; Ann Lambros, Wake Forest University School of Medicine, USA
Algorithm to Evaluate Educational Effectiveness of Teacher’s Advice in Multi-Media
Assisted Education System with Individual Advance ................................ 2759
  Tsuneo Kuwabara, Kouichi Yamada, Toshia No Kokubun, Motonori Tamaki, Nippon Telegraph and Telephone Corporation, Japan
Teaching for Social Justice: A Portal for Educators ................................ 2761
  Sharon Tettegah, University of Illinois, Urbana Champaign, USA
Facilitating Critical Reflection and Discourse in Online Master’s Degree Programs .... 2762
  Deanna Nisbet, Evie Tindall, Regent University, USA
Integrating Virtual and Face-to-Face Education in Computer Programming Learning: an experience using high technology classroom ........................................ 2764
  Alberto Araujo Lopes, faculdade Sumare, Brazil; Romero Tori, USP / Faculdade Sumare, Brazil
Virtual Spaces of Cooperative Experimentation: Virtual Laboratory of Kinematics .... 2766
  Gonzalo Alberto Torres Samperio, Gustavo Nuñez Esquer, Universidad Autónoma del Estado de Hidalgo, Mexico
Higher education in an era of a digital competition: Gist and boundaries ............ 2768
  kiran Trivedi, Shantilal Shah Engineering College, India
Applications of Reusable Learning Objects and Atoms in e-Learning .................. 2770
  Vladimir Uskov, Bradley University (USA), USA
National Science Foundation Project on e-Learning in Information Technology .... 2772
  Vladimir Uskov, Bradley University (USA), USA
Engaging Students in Web-Based Self-Development .................................. 2774
  Diane Wagoner, Indiana University of Pennsylvania, USA; Kay Wijekumar, The Pennsylvania State University Beaver, USA
A Blended Learning Approach to Business in Manufacturing ........................................... 2776
  Michael Wood, Walsh College, USA; Marie Lee, Greenfield Coalition, USA
Seeing is Believing! Can Students Learn Culture using Distance Education? ................. 2778
  Ching-Mei Hsiao, The University of South Dakota, USA; Fei Yang, The University of South Dakota, USA
International Issues in Using Web Technologies in Higher Education .......................... 2780
  Bibi Eshrat Zamani, Isfahan University, Iran (Islamic Republic Of)
An interactive multimedia tool for learning Chinese: the KEY 4.0 software for PC and Macintosh ................................................................. 2781
  Sheri Zhang, University of Ottawa, Canada
Mathematics Education Markup Language ........................................................................ 2783
  Yi Zhou, Yi Zhou, Kent State University, USA
Happenings: A Foray into e-Learning .............................................................................. 2785
  Judith Zorfass, Education Development Center, Inc. (EDC), USA
The personalized Courseware Authoring Tool ................................................................. 2787
  YANHUA CAO, National Laboratory of Machine Perception and Center for Information Science, China

OTHER PAPERS

Meeting Students Expectations and Realizing Pedagogical Goals within the Development of a Virtual Learning Environment ......................................................... 2790
  Christine Frank, Stephan Kassanke & Leena Suhl, University of Paderborn, Germany
Visiting heritage landscapes: creating and using an E-media fieldtrip as an educational resource ................................................................. 2796
  D. Craig Whitehead, Lesley A. Gardner & Simon J. Holdaway, University of Auckland, New Zealand