SIGSEMIS
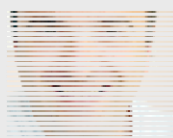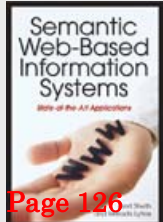http://www.sigsemis.org

Semantic Web & Information Systems

Bulletin

The Official Quarterly Newsletter of AIS
Special Interest Group on Semantic Web and Information Systems

Volume 3, (3-4) 2006

Editor in Chief
Dr. Miltiadis Lytras

© AIS SIGSEMIS

In this issue

- **AIS SIGSEMIS activities**
- **Update on IJSWIS**

DON'T MISS:
Special Section: Our Community Contribution
(page 49)

Editorial	Top News	Special Section	Books	Columns
Thank you☺	**Page 6** : Amit Sheth @ Wright and Knoesis	**Page 49** New Journals, Book Series	**Page 126** :	**Breaking NEWS** OPEN RESEARCH SOCIETY

SIGSEMIS
http://www.sigsemis.org

AIS

Join:http://www.aisnet.org/sigs.shtml

Together we make the Semantic Web a Reality

Table of Contents

| Vol | 1 | Issue | 3 |

October 2004

The Official Quarterly Newsletter of AIS Special Interest Group on Semantic Web and Information Systems   **AIS SIGSEMIS © 2004**

Editorial	**Vol**	3	**Issue**	3-4
	June-Dec 2006			
The Official Quarterly Newsletter of AIS Special Interest Group on Semantic Web and Information Systems	**AIS SIGSEMIS © 2006**			

Dear All,

After a tough period of hard work, AIS SIGSEMIS is again in your hands.

I would like to thank personally all the people around the word that were worried about the publication of this issue of AIS SIGSEMIS Bulletin.

In the next more than 150 pages you will find excellent information regiarding our activities. In a period where whole Europe is authoring proposals for the FP7, it is really a good time to reconsider our models for knowledge dissemination of research outcomes. Withing this context I am more than happy since our NGO, the OPEN RESEARCH SOCIETY is in good order and prepares for the spring of 2008, a great event, the WORLD SUMMIT ON KNOWLEDGE SOCIETY, for which you will find detailed information in the next double AIS SIGSEMIS Bulletin scheduled for Publication in 15th June 2006.

Given our vision and strategic objective to provide to our scientific community more opportunities for publications and collaborations we have developed in this issue a special section related with some of the journals that we launched recently. In the Special section in Page 49, you will find more info on these journals plus a number of Special issues that are open for submissions [have also in mind that full submissions are encouraged even if the deadline for abstract submissions has passed].

I would like to thank deeply the 100s of academics and practitioners who joined me in this effort with enthusiasm. And for sure to clarify that our quality standards for these publications are more than TOP. Here is the list of the Journals:

1. *International Journal of Technology Enhanced Learning(IJTEL) - http://www.inderscience.com/ijtel/*
2. *International Journal of Teaching and Case Studies* (IJTCS) - *http://www.inderscience.com/ijtcs/*
3. *International Journal on Social and Humanistic Computing* *http://www.inderscience.com/ijshc*
4. *International Journal on Digital Culture and Electronic Tourism* http://www.inderscience.com/ijdcet
5. *International Journal of Electronic Democracy* http://www.inderscience.com/ijed
6. *International Journal of Electronic Banking* *http://www.inderscience.com/ijebank*
7. *International Journal of Electronic Trade* http://www.inderscience.com/ijetrade
8. *International Journal of Entertainment Technology and Management*, http://www.inderscience.com/ijenttm
9. *International Journal of Ocean Systems Management* http://www.inderscience.com/ijosm
10. **International Journal of Arab Culture, Management and Sustainable Development,** **http://www.inderscience.com/ijacmsd**

On more issue relates with the coediting of 3 book series with Professor Patricia Ordonez de Pablos in IGI Global. We would be happy to evaluate your book proposals. With a capacity to publish 20-30 titles per year in these 3 [plus the well established Knowledge and Learning Society Series] these book series are a significant contribution to our community.

1. **Advances in Emerging Information Technology Issues Series (AEITI)**
   The **Advances in Emerging Information Technology Issues (AEITI) Book Series** aims to promote leading edge research in Emerging Technologies and Topics of Information Technologies. With a focus to a balanced discussion of technological and business issues, the book series endeavors to develop bridges between the IT industry, IT practitioners and Academia towards a holistic discussion on the adoption of Emerging technologies to the business world and society. This approach fills in a critical gap traditionally found in formalistic discussions for the role of emerging technologies, and responds to the need of society for the exploitation of emerging IT innovations. The books in this series are targeted to answer jointly the WHAT, HOW and WHY of emerging technologies through applied approaches in real world problems.
2. **Advances in Semantic Web and Information Systems Series (ASWIS)**
   The **Advances in Semantic Web and Information Systems (ASWIS) Book Series** promotes a knowledge transfer channel where academics, practitioners and researchers can discuss, analyze, criticize, synthesize, communicate, elaborate, and simplify the more than promising technology of the Semantic Web in the context of Information Systems. The book series aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: Academia, Industry, and Government.
3. **Advances in Strategic Management and Sustainable Development Series (ASMSD)**
   The **Advances in Strategic Management and Sustainable Development (ASMSD) Book Series** is a timely series responding to the high demand for state-of-the-art knowledge on how information technologies provide infrastructures, systems and services towards sustainable development. With a focus on local and global challenges, business opportunities and societal needs, the book series is promoting a scientific debate for international collaboration, peace and understanding based on sustainable development. In a world were traditional business practices are reconsidered; economic activity is performed in a global context; new areas of economic development are recognized as the key enablers of wealth and income production; the quest for collaboration and exploitation of synergies is recognized as an Information Technologies Primer; this book series brings together academics, researchers, entrepreneurs, policy makers and government officers aiming to contribute to the debate on Sustainable Development and Strategic Management.

In this issue you will find also information for the 2ND INTERNATIONAL CONFERENCE ON METADATA AND SEMANTICS RESEARCH [http://www.mtsr.ionio.gr] AN EVENT THAT ALREADY HAS ATTRACTED MORE THAN 80 SUBMISSIONS. We invite you to join us and to send your articles and to meet you in Corfu, Greece in October.

Further more you will find info for several published books, as well as research articles and update on International Journal on Semantic Web and Information Systems [http://www.idea-group.com/ijswis]. With the leadership of Professor Amit Sheth, IJSWIS goes perfect in all terms [quality, impact, inclusion to Citation Indexes]. I would like to wish from the bottom of my heart all the best to Amit, for his appointment as the LexisNexis Eminent Scholar in Wright University and Knoesis [http://knoesis.wright.edu/]. We hope in the next issue to publish a special section in Knoesis presenting the excellent work of Amit and his brilliant group.

I am so happy that we finalized and published 3 books the last months:
1. **Open Source for Knowledge and Learning Management: Strategies beyond tools**
2. **Semantic web based Information systems: State of the Art Applications**
3. **Ubiquitous and Pervasive knowledge and Learning Management: New media, semantics and social networking to their full potential**

Currently we are finalizing the following titles [will be available in bookstores in late 2007]:

4. **Technology Enhanced Learning: Best Practices [Lytras, Gasevic, Huang]**
5. **Knowledge Management Strategies: A handbook of applied technologies [Lytras, Meir. Maier, naeve]**
6. **Knowledge Networks: The social software perspective [Lytras, Tennysons, Ordonez]**
7. **Real World Applications of Semantic Web and Ontologies [Cardoso, Hepp, Lytras]**
8. **Semantic Web Engineering in the context of the knowledge society [Cardoso, Lytras]**
9. **Innovations of Semantic Web Information Systems [Sheth, Lytras]**

10. **Emerging Topics and Technologies for in Information Systems [Lytras, Ordonez, Tsakalidis, Vassilacopoulos]**
11. **Knowledge Ecology: Managing Global Intellectual Capital [Ordonez, Lytras]**

We agreed also with IGI Global for a magnificent title on:
Social Web Evolution: Intregrating Semantic Web Applications ans Web 2.0 technologies and also we arragned for an edited book in Springer for conference post proceedings in 2nd MTSR [http://www.mtsr.ionio.gr] *Advances on Metadata and Semantics Research [Sicilia, Lytras].*

Many thanks also to AIS SIGSEMIS members for their collaboration towards our objective for cultivating the semantic web vision in Information systems' research community. Semantic Web technology is here to stay. Looking forward to "see" you in one of the forthcoming AIS SIGSEMIS activities.

I would be happy to receive mails and reflections to this bulletin. And please get involved, give a help☺

On behalf of SIG SEMIS Board
Dr. Miltiadis D. Lytras
Department of Computer Engineering and Informatics,
University of Patras, Greece,
Email: Lytras@ceid.upatras.gr (use this mail for correspodence)

CONTACT AIS SIGSEMIS Bulletin Editorial Board

Please provide any comments, inquiries, ideas, etc to Dr. Miltiadis D. Lytras at lytras@ceid.upatras.gr

Many Congratulations to Amit Sheth for his new Appointment LexisNexis Eminent Scholar

I want to wish personaly to Professor Amit Sheth, health, prosperity well being and to continue in the same path of virtue and high performance to this new appointment as LexisNexis Eminent Scholar for Advanced Data Management and Analysis at Wright State University.

Miltiadis Lytras.

July 18, 2006

Wright State names international IT expert LexisNexis Eminent Scholar

Internationally-known information technology expert, Amit Sheth, Ph.D., has been named the LexisNexis Eminent Scholar for Advanced Data Management and Analysis at Wright State University. Sheth is internationally known for his work in semantic content, metadata and workflow management, and multimedia information systems. He has held research and development, management and faculty positions at Honeywell, Unisys, Bellcore and the University of Georgia, where he founded the Large Scale Distributed Information Systems Laboratory (LSDIS).

Sheth is currently a professor in the Department of Computer Science and director of the LSDIS Lab, both at the University of Georgia, and co-founder and Chief Technical Officer of Semagix, Inc., headquartered in White Plains, N.Y. Sheth has founded two start ups and published more than 200 papers and articles and authored/edited four books. He has organized eight international meetings and holds two patents. He earned his Ph.D. in computer and information science at The Ohio State University.

"Dr. Sheth is a world-class scholar and researcher," said Jay Thomas, Ph.D., vice president for research and dean of the School of Graduate Studies. "With his impressive background both as a researcher and as an entrepreneur, he will be able provide the research leadership necessary to ensure that daytaOhio can move knowledge from the laboratory into the marketplace to build and grow companies and provide high-paying jobs in Ohio."

Garrison Walters, interim chancellor of the Ohio Board of Regents (OBR), said, "The Ohio Eminent Scholars Program is a crucial piece of the puzzle needed to place the state at the forefront of the knowledge economy. Senior scholars, such as Professor Sheth, drive Ohio's technology-based economic development by attracting federal and industrial funds, as well as academically talented students and postdoctoral associates. And, Professor Sheth's specialization area of advanced data management and analysis is one that bridges all twelve of Ohio's strategic technology platforms targeted within the Third Frontier Project."

An endowed position, the LexisNexis Eminent Scholar is part of the Ohio Eminent Scholars program and is funded by LexisNexis and OBR.

"The appointment of Dr. Sheth benefits the entire Miami Valley and demonstrates how public and private sectors can cooperate to benefit the region. LexisNexis is proud to be a partner in this collaboration," said Allan McLaughlin, senior vice president and global chief technology officer of LexisNexis Group and chairman of the daytaOhio board.

The scholar will provide research leadership for the $43 million daytaOhio, a Wright Center of Innovation to be housed at Wright State University. Part of Ohio's Third Frontier Project, daytaOhio and its primary research facility will be housed in WSU's new $10 million Krishan and Vicky Joshi Research Center, slated to open in September 2006.

AIS SIGSEMIS ACTIVITIES

By SIG Board

MTSR 2007, 2nd International Conference on Metadata and Semantics Research 11-12 October 2007
[http://www.mtsr.ionio.gr/]

<mtsr>07

Conference Venue
The physical part of the event will take place at the Ionian University. **Corfu** is one of the most interesting islands of the Ionian islands in Greece.Touristic information can be found here:
http://www.corfutoday.com/

Submission Deadline Extended

Due to numerous requests for extension the conference committee has decided to extend the submission deadline for three weeks in order to collate with the Easter holidays.
The new deadline for papers/abstracts submissions and Invited Sessions Proposals is **May 20th**. For those that have submitted their work earlier the review process has already started and will finish on time.

Post-proceedings

Springer A post-proceedings volume will be published by Springer under the title "**Advances in Metadata and Semantics research**".

Special Session Proposals
The MTSR 2007 Program Committee invites proposals for the Technical Special Sessions
MTSR 2007 Technical Special Sessions are aimed to cover special or innovative research areas and scientific advances.
Submitting a proposal
Each Technical Special Session is expected to have from 4 to 8 papers and at least one author for each paper must register for the conference and present the paper during the session.
All the papers should follow a rigorous peer review process. The special session chair is responsible for the review process.

Special Session papers will be published together with regular papers in the conference proceedings.
Proposals for Technical Special Sessions must include:
* Title of the Special Sessions
* Rationale of the need and objective of the session
* Session outline
* Specific topics of interest
* Contact information for the Special Session chair(s)
* Short biography of the Special Session chair(s)
Proposals for Technical Special Sessions should be submitted to **Miltiades Lytras**
(lytras@ceid.upatras.gr) before May 15, 2007. Prospective organizers are strongly encouraged to
contact Miltiades Lytras in advance.

CFP
2nd International Conference on Metadata and Semantics Research (MTSR'07) The 2nd International Conference on
Metadata and Semantics Research will be held at the
Ionian Academy of Corfu (Ionian University) from **October the 11th to October the 12th 2007**.
The conference targets researchers and practitioners from the fields of **metadata and**
semantics research as well as applications of the semantic web and related technologies
(Social Web, Infometrics, Information Retrieval). The conference location is the Ionian
Academy the building of the First Greek University established by Frederik North , Earl of Gilford in 1824.
The university was reestablished in 1984.
Corfu is one of the most famous islands in Greece and the Capital of Heptanese (the 7 islands block in the
Ionian Sea.
The conference will feature important keynotes from well known researchers and practitioners.
The conference will publish ISBN based CD-ROM proceedings as well as post proceedings published
by an international publisher.
Proposed Topics:
* Metadata design and semantics
* Application and Evaluation of metadata standards. Quality of metadata
* Metadata usage on digital libraries, museums and archives.
* Ontologies, vocabularies and thesauri
* Ontological and knowledge-based approaches to metadata
* Ontologies and vocabularies specific to scientific and/or technological domains
* Semantic Web and ontologies in information science and digital libraries
* Metadata-based information retrieval and browsing. Use of metadata for describing and retrieval
digital objects: from articles and learning objects to journals and e-learning applications.
* Multilingual metadata vocabularies
* Federated metadata systems
* Metadata registry
* Metadata for heterogeneous sources in distributed environments
* Organizational and social aspects of Semantic Web and related technologies
* Integration and Interoperability
* Standards
* Operational environments
* Distributed and heterogeneous systems
* Distributed digital collections (building, storage, maintenance and development)
* Information Organization, Search and Usage
* Electronic resource management tools
* Resource Discovery
* Models and standards for information representation
* User Studies and System Evaluation

* Collaborative environments
* Graphical user interfaces
* Information visualization interfaces, tools, techniques
* Usability
* Information Seeking and Behavior
* Empirical user studies
* User communities
* Cognitive approaches and methodologies
* Metrics, testbeds, results for Information Analysis.
* Digital Archiving and Preservation
* Digital imagery for historical and cultural materials.
* Digital Museums
* Virtual exhibitions. Virtual environments. 3D digital museums artefacts. Digitized spaces
* Mobile computing guide
* Digital Library Applications
* Media digital libraries, video digital libraries
* Accessible digital libraries
* Multilingual information access
* Social, organizational and economic issues
* Intellectual Property Issues
* National digital libraries, specialized digital libraries
* Digital libraries in organizational environments
* Data libraries In Education, e-learning
* Business and publishing models and tools for digital libraries and repositories

Keynote Speakers

USING SEMANTICS TO ENHANCE B2B INTEGRATION
Jorge Cardoso

Departamento de Matemática e Engenharias
University of Madeira
9100-390, Portugal
jcardoso@uma.pt

Abstract
B2B integration, also known as external IS integration and e-business integration, has promised to automate and integrate business processes and interactions between companies by considerably renovating the way business is conducted with partners, suppliers, and customers. B2B integration is fundamentally about data and information exchange among businesses and their information systems.
One simple solution that organizations have adopted to reach a higher level of integration relied on the use of XML as the language to represent data. Today it is estimated that most organizations use XML to store and transfer data. Unfortunately, XML only provides syntax to structure the data exchanged in a B2B setting, since tags have no predefined meaning. This is only one level of interoperability that must be met in B2B transactions. Developers are still faced with the problem of semantic interoperability, i.e., the difficulty to integrate resources that were developed using different vocabularies and different perspectives on the data.
In order to overcome the limitation of using a syntactic B2B integration, the Semantic Web and its associated technologies promise to offer a valuable solution to semantic B2B integration. This keynote discusses architectural solutions that allows organizations to participate in B2B transaction using syntactic protocols (i.e. XML) while representing their internal vocabularies and documents semantically (using OWL). Partners and suppliers can freely exchange syntactic documents. Once an organization receives a syntactic document it is allowed to create a mapping between the elements

from the document and concepts of an ontology that describes the domain of discourse of the organization (i.e., internal vocabulary). The organization that receives the documents can create any number of mappings. The mappings are stored in a local repository and can be reused when new, unseen, syntactic documents arrive. When a new syntactic document is received by an organization, the repository is queried to determine if some of the syntactic elements have already been mapped to ontological concepts in the past.

Professor Jorge Cardoso (http://www.dme.uma.pt/jcardoso) joined the University of Madeira (Portugal) in March 2003. He previously gave lectures at University of Georgia (USA) and at the Instituto Politécnico de Leiria (Portugal). Dr. Cardoso received his Ph.D. in Computer Science from the University of Georgia in 2002 (with Amit Sheth). While at the University of Georgia, he was part of the LSDIS Lab. where he did extensive research on workflow management systems. In 1999, he worked at the Boeing Company on enterprise application integration with Christoph Bussler. Dr. Cardoso was the co-organizer and co-chair of the First, Second, and Third International Workshop on Semantic and Dynamic Web Processes. He has published over 60 refereed papers in the areas of workflow management systems, semantic Web, and related fields. He has also edited 3 books on semantic Web and Web services. He is on the Editorial Board of the Enterprise Information Systems Journal, the International Journal on Semantic Web and Information systems, and the International Journal of Information Technology. He is also member of the Editorial Advisory Review Board of Idea Group Inc. Prior to joining the University of Georgia, he worked for two years at CCG, Zentrum für Graphische Datenverarbeitung, where is did research on Computer Supported Cooperative Work.

RULE-BASED REASONING FOR THE
SEMANTIC WEB

Grigoris Antoniou
Computer Science Department , University of Crete and
Information Systems Laboratory
Institute of Computer Scicence (ICS)
Foundation of Research and Technology (FORTH)
Vassilika Vouton, P.O.Box 1385
GR 711 10 Greece

The Semantic Web is an initiative aiming at enhancing the state of the current WWW through the use of semantics. The main techniques used for achieving this goal are semantic annotations, their linkage through the use of ontologies, and reasoning to process the semantic information.

In this presentation we will discuss reasoning techniques based on rule-based representations. We will focus on systems that can process semantic metadata, ontologies, rules and conflicting (contradictory) information. We will provide an overview of theoretical foundations, implementations, and applications.

Short biography

Grigoris Antoniou is Professor of Computer Science at the University of Crete, and Head of the Information Systems Laboratory at FORTH. Previously he held professorial positions at the University of Bremen, Germany, and Griffith University, Australia. His research interests lie in knowledge representation & reasoning, semantic web technologies and their applications. He has published over 150 technical papers, and is co-author of "A Semantic Web Primer", published by the MIT Press. He is involved in a number of European and National S&T projects. In recognition of his research performance and service to the community, he was named ECCAI Fellow in 2006, joining the list of distinguished AI researchers in Europe.

2nd International Conference on Metadata and Semantic Research
Corfu, Greece, October 11-12, 2007

Title of the Special Session: Metadata & Semantics for Collaboration Support Environments

Rationale for the need and objective of the session

Today's teams and work environments producing knowledge artefacts are able to overcome the geographical and temporal limitations of traditional modes of collaboration, thus forming virtual online communities. Collaboration software aims at supporting the work of such distributed teams. Designing software systems that can adequately address a team's needs to express, share, interpret and reason about knowledge during an argumentative collaboration session has been a major research and development activity for more than twenty years. Technologies supporting collaboration usually provide the means for discussion structuring and visualization, sharing of documents, and user administration.

The field of software that supports collaboration of distributed teams encompasses diverse applications ranging from email, blogs and discussion forums to sophisticated argumentation support systems. Although each of the aforementioned solutions addresses different collaboration environments and needs, they must all provide the necessary means so that the semantics associated with individual knowledge artefacts can be clearly represented, unambiguously communicated, consistently interpreted and reasoned upon *by both* humans and the machine. At the same time, while some collaboration support environments focus on the ease of use and mechanisms to communicate semantics to humans (such as email and discussion forums), these prove unable to make the semantics perceivable by the machine, thus limiting severely the range of potential services. On the other hand, collaboration support environments that provide mechanisms making the semantically enriched knowledge artefacts perceivable by the machine prove difficult to use by end users (e.g. argumentation systems).

The way the semantic dimension of individual and organizational knowledge artefacts is handled by collaboration environments is critical for the community's ability to comprehend and create new knowledge. In any case, explicit support for metadata and semantics management exists only in a limited set of the abovementioned applications. Metadata and relevant techniques to augment the semantic dimension of collaboration support environments may prove beneficial, since they may be the catalyst to enable the broadening of the available services in collaborative environments. Objective of this special session is to investigate and advance the state of the art with respect to the above issues.

Session outline

The session will be highly interactive and engage participants in fruitful discussions. Authors of accepted papers will be asked to follow a structured template for their presentation, focusing on the problem addressed in their approach, the methodology followed, and the results of their work. The session will be coordinated by the session chairs. After the short paper presentations, they will initiate and coordinate a discussion between the presenters and the audience on issues raised during the presentations, thus forming an open panel on the topics addressed.

Authors of the session's best papers will be requested to further elaborate their work and prepare an extended version for potential publication in the scientific journals that are already associated to the conference (in a special issue of them).

Specific topics of interest:

- o Metadata and Semantics in Collaboration Support Environments
- o Semantic Web and Online Collaboration
- o Metadata and Semantics for Collaborative Learning
- o Formalization in Collaborative Environments

- o Metadata and Semantics in Collaborative Argumentation
- o Data Mining in Collaborative Environments
- o Metadata usage in Collaboration Support Environments
- o Integration and Interoperability Issues
- o Social and Organizational Issues

Contact information for the Special Session chairs:

Nikos Karacapilidis
University of Patras & RA Computer Technology Institute, Greece
Email: nikos@mech.upatras.gr
http://www.mech.upatras.gr/~nikos/

Manolis Tzagarakis
RA Computer Technology Institute, Greece
Email**:** tzagara@cti.gr
http://tel.cti.gr/tzag/

Short biography of the Special Session chairs:

Nikos Karacapilidis holds a Professor position at the University of Patras (field: Management Information Systems). His research interests lie in the areas of Intelligent Web-Based Information Systems, Technology-Enhanced Learning, e-Collaboration, Knowledge Management Systems, Group Decision Support Systems, Computer-Supported Argumentation, Enterprise Information Systems and Semantic Web. He has been recently appointed as Editor-in-Chief of the Advances in Web-based Learning (AWBL) Book Series, published by IGI Global (http://www.igi-pub.com/bookseries/details.asp?id=432), while he also acts as Associate Editor for the International Journal of Web-based Learning and Teaching Technologies (IJWLTT - http://www.idea-group.com/journals/details.asp?id=4286). More detailed information about his publications list, research projects involved and professional activities can be found at http://www.mech.upatras.gr/~nikos/.

Manolis Tzagarakis holds a Ph.D. in Computer Engineering & Informatics and is currently a researcher at the Research Academic Computer Technology Institute in Patras, Greece. His research interests are in the areas of hypertext and hypermedia, knowledge management systems, collaboration support systems, technology-enhanced learning, and group decision support systems. He was the program chair of the ACM Hypertext 2005 conference and the workshop chair for the ACM Hypertext 2004 conference. He has served the program committees of several conferences and workshops. More detailed information can be found at http://tel.cti.gr/tzag/.

\<mtsr\> 07

2nd International Conference on Metadata and Semantics Research
Corfu, Greece, 11-12 October 2007

Special Session on Agricultural Metadata & Semantics

Session Chairs

Dr. Johannes Keizer, *Food and Agriculture Organization of the United Nations, Italy*
Nikos Manouselis, *Informatics Laboratory, Agricultural University of Athens, Greece*

Rationale & Objectives

A common vision that may serve as an enabler for sustainable development, environmental preservation, and fighting hunger in the world, is the involvement, collaboration and coordination of activities dealing with the production, organisation and exchange of agricultural knowledge. Numerous technical and subject experts are working on related topics, tackling with issues such as classifications & taxonomies, controlled vocabularies, thesauri, authority files, glossaries, metadata specifications and their application profiles, as well as ontology-driven applications.

In this direction, initiatives such as the Agricultural Information Management Standards[1] (AIMS) of the Food and Agriculture Organisation of the United Nations (FAO) have been launched to involve as wide a sector of the agricultural community as possible, including information providers, research institutes, academic institutions, educational/extension institutions, as well as the private sector. Important results have been produced as an outcome of this collaborative effort, and are already put in practice around the world.

The aim of the proposed Special Session on "Agricultural Metadata and Semantics" is to bring together researchers and practitioners that are working on agricultural knowledge production, organization, and exchange from a Semantic Web perspective. It aims to serve as a discussion forum where interested experts will present the results of their work, also establishing liaisons between different groups that are working on related subjects. In addition, it aims to outline the rich potential of the agricultural knowledge domain as an application field for advanced metadata- and semantic-driven systems and services.

Session outline

The proposed session is expected to start with a presentation of the current landscape in knowledge production, organisation and exchange for agricultural research and technologies, as well as the work that is currently being carried out in FAO. Then, it is expected to include presentations that will report results from various ongoing or completed efforts that implement agricultural information management systems and services, with a focus on metadata and semantics. Examples include the Organic.Edunet federation of learning repositories with organic agriculture content, the BIOAGRO Web portal with information services that aim to organic agriculture stakeholders, and the Rural-eGov Observatory of e-Government services for rural development. The session is expected to conclude with an open discussion between participants on current and future research directions in the agricultural knowledge domain, as well as potential application domains for metadata- and semantic-driven systems and services.

Topics of interest

Topics of interest for the proposed special session include (among others):
- Agricultural information standards and specifications
- Agricultural metadata schemas and application profiles
- Multilingual agricultural vocabularies, taxonomies, glossaries and thesauri
- Metadata generation, harvesting, exchange in agricultural information systems
- Agricultural knowledge acquisition, elicitation and extraction
- Infrastructures, systems and services for agricultural knowledge organisation
- Repositories and archives for agricultural knowledge
- Agricultural ontology approaches, models, theories, and languages
- Agricultural ontology development, integration, lifecycle, and evaluation

---

[1] Agricultural Information Management Standards Web Site: http://www.fao.org/aims/

- Management of large ontology-driven agricultural data and knowledge bases
- Applications in domains such as education & training, commerce, public administration

Proposed dates

Submissions: July 15, 2007
Notification: July 31, 2007
Camera-ready: August 31, 2007

Short Bios of Session Chairs

Dr. Johannes Keizer (Information Systems Officer) holds an MSc in Biochemistry and a PhD in Biology. He has been involved in the development of information systems for more than 10 years. He has a MSc in Biochemistry from the University of Hannover, Germany (1989) and a PhD in Biology from the University of Mainz, Germany (1992). He has been working with FAO since 1998 and is currently responsible for FAO's Documentation Catalogue, an international network of documentation centres (AGRIS) and the multilingual agricultural thesaurus, AGROVOC. His Team consists of about 18 experts, working in documentation, ontology and thesaurus development and metadata standards. Initiatives such as the AgMES and the AOS have been launched by the Team under his leadership.

N. Manouselis is a member of the Informatics Laboratory of the Agricultural University of Athens (AUA) since 2005. He has a diploma in Electronics & Computer Engineering from the Technical University of Crete, Greece (2000), a MSc in Operational Research (2002), as well as, a MSc in Electronics & Computer Engineering (2003), both from the Technical University of Crete (TUC), Greece. Currently, Mr. Manouselis is completing a PhD on applications of metadata for social information retrieval of agricultural resources, at the Informatics Laboratory of AUA. His research focuses on the design and deployment of advanced electronic services for agriculture and rural development.

Contact information

Dr. Johannes Keizer
WAICENT/Knowledge Exchange Facilitation Branch (KCEW)
Food and Agriculture Organization of the United Nations, Italy
Tel: +39 349 237 6018, E-mail: Johannes.Keizer@fao.org
URL: http://www.johanneskeizer.com/

N. Manouselis
Informatics Laboratory
Division of Informatics, Mathematics & Statistics
Dept. of Science, Agricultural University of Athens, Greece
Tel: +306945166400, E-mail: nikosm@ieee.org
URL: http://infolab-dev.aua.gr/people.php?lang=en&id=2

MTSR Special Session - Metadata and Semantics for Pervasive Computing Applications

Rationale

The special session will contain papers relevant to metadata issues in pervasive computing environments. Such environments are characterized by highly distributed communication and sensing, as well as intelligent applications that leverage the user experience. In such environments, the exploitation of semantics is expected to play a key role towards the development of smart and context-aware applications and spaces. The session will try to collect papers of top scientific value on the topics identified below. These cover many aspects of the ubiquitous computing paradigm, such as networking, information processing, context fusion, modeling and reasoning, and user-centric applications.

The specific objectives of the session are:
- To bring together leading researchers in the relevant research area
- To identify open research issues
- To highlight several (complementary) aspects of using semantics in pervasive computing

Session Outline

The session is expected to consist of 4-5 presentations of accepted papers (each presenter will be given a 20-30 minutes slot). At the end of the session a small discussion on a topic chosen by the session chairs will be held. The topic will be relevant to the topics of the accepted papers, so that it will be of interest to all participants.

Key Topics of Interest
- Usage of metadata standards in pervasive computing applications
- Ontologies for context-aware systems
- Distributed metadata management
- Personalization techniques based on Semantic Web technologies
- Semantic Web Service architectures for ubiquitous computing
- Reasoning with contextual information (ontology-based and approximate reasoning)
- Semantics for representing and handling uncertainty in context-aware systems
- Semantic techniques for trust establishment and security
- Design of a "knowledge plane" for future networking
- Knowledge-based middleware platforms

Contact Details for Session Chairs:

Vassileios Tsetsos
Pervasive Computing Research Group,
Dept of Informatics and Telecommunications, University of Athens,
Panepistimiopolis, 15784, Ilissia, Greece
E-mail: b.tsetsos@di.uoa.gr
Phone: +30 210 7275127
Fax: +30 210 7275601
Web: http://www.di.uoa.gr/~btsetsos

Christos Anagnostopoulos
Pervasive Computing Research Group,
Dept of Informatics and Telecommunications, University of Athens,
Panepistimiopolis, 15784, Ilissia, Greece
E-mail: bleu@di.uoa.gr
Phone: +30 210 7275127
Fax : +30 210 7275601
Web: http://www.di.uoa.gr/~bleu

Stathes Hadjiefthymiades

Pervasive Computing Research Group,
Dept of Informatics and Telecommunications, University of Athens,
Panepistimiopolis, 15784, Ilissia, Greece
E-mail: shadj@di.uoa.gr
Phone: +30 210 7275148
Fax : +30 210 7275601
Web: http://www.di.uoa.gr/~shadj

Short biographies

Vassileios Tsetsos received his B.Sc. in Informatics from the Department of Informatics & Telecommunications at the University of Athens, Greece in 2003 and his M.Sc. in "Communication Systems and Data Networks" from the same Department in 2005. Nowadays, he is a Ph.D. candidate in the department. He is a member of the Communication Networks Laboratory (CNL) of the University of Athens and the Pervasive Computing Research Group (p-comp). He has participated in several projects funded by the EU IST programme, and in several national research projects. His research interests are in the areas of pervasive and mobile computing, Semantic Web (Semantic Web services, multimedia semantics) and middleware for context-aware services. He is the author of over 20 publications, in international scientific journals, conferences and books, in the above areas.

Christos B. Anagnostopoulos has received his B.Sc. in Computer Science from the Department of Informatics and Telecommunications at the University of Athens (UoA), Athens, Greece in 2001 and his M.Sc. in Computer Science - Advanced Information Systems from the same department in 2003. He is now a Ph.D. student in the University of Athens - Department of Informatics and Telecommunications. He is a member of the Communication Networks Laboratory (CNL) of the University of Athens and the Pervasive Computing Research Group (p-comp). His research interest is focused on Context- and Situation- Awareness, Context Reasoning, Semantic Web and Ontological Engineering. He had also participated in projects realized in the context of EU Programs. He is the author of over 20 publications, in international scientific journals, conferences and books, in the above areas.

Stathes Hadjiefthymiades received his B.Sc. (with honours) in Computer Science from the Department of Informatics at the University of Athens, Athens - Greece in 1993 and his M.Sc. (with honours) in Computer Science (Advanced Information Systems) from the same department in 1996. In 1999 he received his Ph.D. from the University of Athens (Department of Informatics and Telecommunications). In June 2002 he received a Joint Engineering-Economics M.Sc. degree from the National Technical University of Athens. Since 1992, he was with the Greek consulting firm Advanced Services Group, Ltd. (ASG, Ltd.), where he was extensively involved in the analysis and specification of information systems as well as the design and implementation of telematic applications. Since 1995, he has been a member of the Communication Networks Laboratory of the University of Athens. He has participated in numerous projects realised in the context of EU Programs (ACTS, ORA, TAP, INFO2000, IST) as well as National Initiatives (Telematique, RETEX, Mentor).
During the period Sept.2001-Jul.2002 he served at the University of Aegean, Dept. of Information and Communication Systems Engineering as a visiting Assistant Professor. He joined the faculty of Hellenic Open University (Patras, Greece) on the summer of 2002 as an Assistant Professor (on Telecommunications and Computer Networks). Since December 2003 he belongs to the Faculty of the Department of Informatics and Telecommunications, University of Athens, where he is presently an Assistant Professor (on Large Scale Software Systems). His research interests are in the area of wireless/mobile/pervasive computing and networked multimedia applications. He is the author of over 100 publications, in international scientific journals, conferences and books, in the above areas.

OPEN RESEARCH SOCIETY MEETING
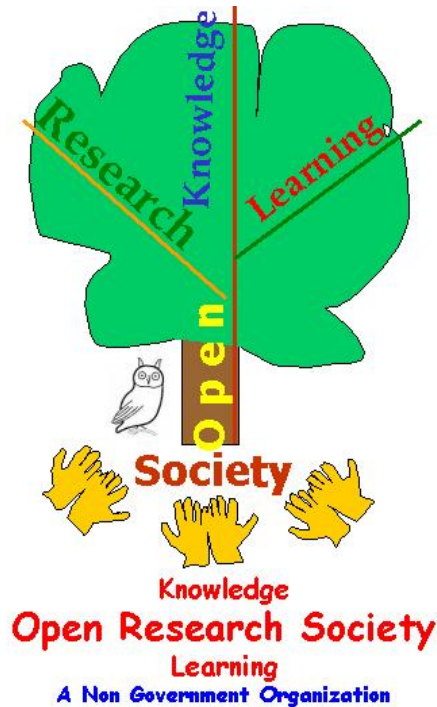
A meeting of the recently founded **Open Research Society** will take place as a collocated event of MTSR'07.

People interested in open access, open educational resources and open research in a broad sense are encouraged to participate. The session is open to anyone that wants to participate, and it will include among others the following presentations:

Lytras, M. "Open research: beyond barriers in Knowledge and Research Dissemination"

Sicilia, M.A. "Recycling information with metadata: a new approach to collaborative filters?"

Minguillón, J. "Sustainable information management for personal learning environments"

Naeve, A. "Acknowledging your research proposal gaps: open weaknesses as a strategy to attract collaboration"

Position papers on any aspect of openness intended to motivate discussion and foster debate are wellcomed till **15th September 2007**. Send them to msicilia@uah.es

Publication of Selected Articles on International Journals

After a confirmation from the Editors in Chief, we are pleased to announce that selected articles from the conference will be considered for publication in the following international journals:

The Electronic Library

Information Sciences

International Journal of Knowledge and Learning

Committees

Conference ChairGeorge Bokos. Dept. of Archives and Library Science, Ionian Univ. Corfu (Greece)
Programme (co-)Chairs
Miguel-Angel Sicilia. Computer Science Department, Univ. of Alcalá (Spain)
Miltiadis Lytras. Computer Eng. and Informatics Department, Univ. of Patras (Greece)

Program Committee [limited list]

Vasilios Chrisikopoulos. Dept. of Archives and Library Science, Ionian Univ. Corfu (Greece)
Darina Dicheva. Dept. of Computer Science, Winston-Salem State University (USA)
Asuman Dogac. Dept. of Computer Eng., Middle East Technical Univ. (Turkey)
Jérôme Gensel. Univ. Pierre Mendés (France)
Roberto Zicari, Dept. of Computer Eng., University of Frankfurt (Germany)
Jane Greenberg. Univ. of North Carolina at Chapel Hill (USA)
Farshad Fotouhi. Department of Computer Science Wayne State University (USA)
Shiyong Lu. Department of Computer Science Wayne State University (USA)
Jesus Contreras. iSOCO (Spain)
Spiros Sirmakesis, University of Patras (Greece)
Ioanna Constantiou, Copenhagen Business School (Denmark)
Eero Hyvönen. Lab. of Media Technology, Helsinki Univ. of Technology (Finland)
Nikolaos Kanelopoulos. Dept. of Archives and Library Science, Ionian Univ. Corfu (Greece)
Nikos Manouselis, Informatics Laboratory, Agricultural Univ. of Athens (Greece)
Ioannis Kokonas. Dept. of Archives and Library Science, Ionian Univ. Corfu (Greece)
Panayota Polydoratou. City University London (UK)
Jian Qin. Syracuse University (USA)
Jorge Cardoso. University of Madeira. (Portugal)
Gottfried Vossen, University of Muenster (Germany)
William Moen. School of Library and Information Science. Univ. of North Texas (USA)
Ambjörn Naeve. Royal Institute of Technology (Sweden)
Theodoros Pappas. Dept. of Archives and Library Sciences. Ionian Univ. Corfu (Greece)
Fabio Sartori. Univ. of Milano-Bicocca (Italy)

Organizing Committee

Marios Poulos. Dept. of Archives and Library Science, Ionian Univ. Corfu (Greece)

Sozon Papavlasopoulos. Dept. of Archives and Library Science, Ionian Univ. Corfu (Greece)
Nikos Korfiatis. Dept of Informatics, Copenhagen Business School. Copenhagen (Denmark)

International Journal on Semantic Web and Information Systems: Update

An Official Publication of the [Information Resources Management Association](#) since 2005
Editor-in-Chief: [Amit Sheth](#); Kno.e.sis Center, Wright State University, USA
[Miltiadis D. Lytras](#), Academic Research Computer Technology Institute, Greece ; **Published:** Quarterly

Description:
The International Journal on Semantic Web and Information Systems promotes a knowledge transfer channel where academics, practitioners and researchers can discuss, analyze, criticize, synthesize, communicate, elaborate, and simplify the more than promising technology of the Semantic Web in the context of Information Systems. The journal aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: Academia, Industry, and Government.

Mission:
The International Journal on Semantic Web and Information Systems is an open forum aiming to cultivate the Semantic Web vision within the Information Systems research community. In the common practice of anticipating Semantic Web as a technology driven phenomenon, a scientific insight is provided, which reveals the practical implications and the research challenges of SW in the context of Information Systems. It goes beyond the traditional research agenda of Information Systems and critical themes are analyzed through a Semantic Web perspective in horizontal and vertical pillars. The main idea is to communicate high quality research findings in the leading edge aspects of Semantic Web and Information Systems convergence. This statement distinguishes our journal and differentiates our publishing strategy from other publications: Traditionally Semantic Web is treated as a technological phenomenon with the main emphasis on technologies, languages and tools without similar attention given to theoretical constructions or linkages to multidisciplinary references: Our focus is on the Information Systems Discipline and we are working towards the delivery of the main implications that the Semantic Web brings to Information Systems and the nformation/Knowledge Society.

Coverage:
The main themes covered in the journal include:
    Semantic Web Issues, challenges and Implications in each of the IS research streams
    Real world applications towards the development of the Knowledge society
    New Semantic Web enabled Tools for the citizen/ learner/ organization/ business
    New Semantic Web enabled Business Models
    New Semantic Web enabled Information systems
    Integration with other disciplines
    Intelligent Systems
    Standards
    Semantic enabled business intelligence
    Enterprise Application Integration
    Metadata-driven (bottom-up) versus ontology-driven (top-down) SW development
    From e-Government to e-Democracy

Guidelines for Submission:
Originality
Prospective authors should note that only original and previously unpublished manuscripts will be considered. Furthermore, simultaneous submissions are not acceptable. Submission of a manuscript is interpreted as a statement of certification that no part of the manuscript is copyrighted by any other publication nor is under review by any other formal publication. It is the primary responsibility of the author to obtain proper permission for the use of any copyrighted materials in the manuscript, prior to the submission of the manuscript.

Style

Submitted manuscripts must be written in the APA (American Psychological Association) editorial style. References should relate only to material cited within the manuscript and be listed in alphabetical order, including the author's name, complete title of the cited work, title of the source, volume, issue, year of publication, and pages cited. Please do not include any abbreviations. See the following examples:

- **Example 1**: Single author periodical publication.
  Smith, A.J. (2002). Information and organizations. Management Ideology Review, 16(2), 1-15.
- **Example 2**: Multiple authors periodical publication.
  Smith, A.J., & Brown, C.J. (1998). Organizations and information processing. Management Source, 10(4), 77-88.
- **Example 3**: Books.
  Smith, A.J. (2002). Information Booklet. New York: J.J. Press.

State author's name and year of publication where you use the source in the text. See the following examples:

  o **Example 1**: In most organizations, information resources are considered to be a major resource (Brown, 1998; Smith, 2002).
  o **Example 2**: Brown (2002) states that the value of information is recognized by most organizations.

Direct quotations of another author's work should be followed by the author's name, date of publication, and the page(s) on which the quotation appears in the original text.

  o **Example 1**: Brown(2002) states that "the value of information is realized by most organizations" (p. 45).
  o **Example 2**: In most organizations, "information resources are considered to be a major organization asset" (Smith, 2003, pp. 35-36) and must be carefully monitored by the senior management.

For more information please consult the APA manual.

Submission

Authors are asked to submit their manuscripts for possible publication by e-mail as a file attachment in Microsoft Word or RTF (Rich Text Format) to mdl@aueb.gr. Very soon an on-line submission system will be available through www.sigsemis.org. The main body of the e-mail message should contain the title of the paper and the names and addresses of all authors. Manuscripts must be in English. The author's name should not be included anywhere in the manuscript, except on the cover page. Manuscripts must also be accompanied by an abstract of 100-150 words, precisely summarizing the mission and object of the manuscript.

Papers of the following areas are invited:

Full Research Papers

Reviews should focus on the following guidelines when submitting full research papers: The key objective is the presentation of research outcomes and the length should be 4,000-6,000 words. The evaluation factors include 20% theoretical background, 40%significance of propositions, 20% quality of writing, and 20% discussion of implications.

Research Papers Progress

The key objective is to outline interesting future research outlets, while keeping the length from 3,000-3,500. The evaluation factors include 30% theoretical background, 30% methodology outlined, 20% quality of writing, and 20% research problem description.

Case studies

Reviewers should focus on the objective: discussion of real world implementations, while

keeping it at the length of 4,000-5,000 words. Evaluation factors include: Research Issues (30%), Promotion of theory & Practice (30%), Discussion of outcomes (20%), and Quality of writing (20%).

Literature Review Papers

When submitting literature review papers, please focus on the main objective: Intensive Critiques of literature / Gaps for possible research. The evaluation factors will include: theoretical background (40%), critical thinking (20%), discussion of gaps in theory (20%), and quality of writing (20%).

Critique of Clusters of SW projects

Please keep the key objective as the evaluation of outcomes when submitting a 5,000-7,000 word critique. The evaluations factors will include: methodologies used (50%), discussion of performance gaps (30%), and the quality of writing (20%).

Vision papers

Please keep the key objective as crafting roadmaps for the future when submitting a 4,000-6,000 word paper. The evaluation factors will include: innovation (50%), theory and technology exploitation (20%), and the quality of writing (20%).

All inquiries and submissions should be submitted to the online system at www.ijswis.org with a copy through mail to to:

Dr. Miltiadis D. Lytras

International Journal on Semantic Web and Information Systems
 E-Mail: lytras@ceid.upatras.gr

Indices:

Burrelle's Media Directory
Cabell's Directory
Compendex (Elsevier Engineering Information)
DEST Register of Refereed Journals
GetCited
The Index of Information Systems Journals
INSPEC
Media Finder
Standard Periodical Directory
Ulrich's International Periodicals Directory

<u>**Call for Papers:**</u>
The Editor-in-Chief of the **International Journal on Semantic Web and Information Systems (IJSWIS)** would like to invite you to consider submitting a manuscript for inclusion in this scholarly journal. The following describes the mission, the coverage and the guidelines for submission to **IJSWIS**.

Mission

The International Journal on Semantic Web and Information Systems is an open forum aiming to cultivate the Semantic Web vision within the Information Systems research community. In the common practice of anticipating Semantic Web as a technology driven phenomenon, a scientific insight is provided, which reveals the practical implications and the research challenges of SW in the context of Information Systems. It goes beyond the traditional research agenda of Information Systems and critical themes are analyzed through a Semantic Web perspective in horizontal and vertical pillars.
The main idea is to communicate high quality research findings in the leading edge aspects of Semantic Web and Information Systems convergence. This statement distinguishes our journal and differentiates our publishing strategy from other publications: Traditionally Semantic Web is treated as a technological phenomenon with the main emphasis on technologies, languages and tools without similar attention given to theoretical constructions or linkages to multidisciplinary references: Our focus is on the Information Systems Discipline and we are working towards the delivery of the main implications that the Semantic Web brings to Information Systems and the nformation/Knowledge Society.

Coverage

The main themes covered in the journal include:

    Semantic Web Issues, challenges and Implications in each of the IS research streams
    Real world applications towards the development of the Knowledge society
    New Semantic Web enabled Tools for the citizen/ learner/ organization/ business
    New Semantic Web enabled Business Models
    New Semantic Web enabled Information systems
    Integration with other disciplines
    Intelligent Systems
    Standards
    Semantic enabled business intelligence
    Enterprise Application Integration
    Metadata-driven (bottom-up) versus ontology-driven (top-down) SW development
    From e-Government to e-Democracy

Call for Papers - Special Issue:
Special Issue on Mobile Services and Ontologies

**** Submission Deadline is April 30, 2007****

Guest Editors

Christoph Bussler, Cisco Systems, Inc., USA at **chbussler@aol.com**
Birgitta König-Ries , University of Jena, Germany at **koenig@informatik.uni-jena.de**
Dumitru Roman, DERI Innsbruck, Austria) **dumitru.roman@deri.org**
Jari Veijalainen , University of Jyvaskyla, Finland at **veijalai@cs.jyu.fi**

BACKGROUND

Today, computers are changing from big, grey, and noisy equipment on our desks to small, portable, and constantly connected devices most of us are carrying around. This new form of device mobility imposes a shift in how we view computers and the way we use them. Services offer the possibility to overcome the limitations of individual mobile devices by making functionality offered by others available on an "as-needed" basis. Thus, using the service-oriented computing paradigm in mobile environments will considerably enlarge the variety of accessible applications and will enable new business opportunities in the mobile space by delivering integrated functionalities across wireless networks. Network-hosted mobile services will allow mobile operators and third party mobile service providers to extend their businesses by making their services available to a broader audience (e.g. developers, service providers, etc.); device-hosted services will allow great potential for major innovations for applications and services that can be provided to individual mobile device owners. These mobile services offer functionalities and behaviours that can be described, advertised, discovered, and composed by others. Eventually, services will be able to interoperate even though they have not been designed to work together. This type of interoperability is based on the ability to understand other services and reason about their functionalities and behaviours when necessary. In this respect, mobile services could benefit from the techniques developed for the Semantic Web. Use of Semantic Web languages, techniques and technologies, including ontologies, semantic annotations (of both content and services), automatic metadata extraction, reasoning, etc. may offer new capabilities for mobile applications. However, standard semantic web tools and technologies are too heavy-weight for small mobile devices. The need to appropriately combine and adapt mobility and semantic grounded data sharing has generated and is continuously triggering challenging questions in several areas of computer science, engineering and networking.

CALL FOR PAPERS

This special issue will cover research problems around methods, concepts, models, languages and technologies that enable new opportunities in the mobile space through adoption, usage, and integration of mobile services with ontologies and other Semantic Web enablers. Of particular interest are methodologies and technologies that will allow automatic tasks to be performed with respect to mobile services and the use of ontologies and semantic techniques in this context. Topics of interest include, but are not limited to the following which involve ontologies or other Semantic Web capabilities:

    architectures for mobile internet services
    languages for describing mobile services
    discovery and matchmaking of ontology based mobile services
    adaptive selection of mobile services
    ontology management in mobile environments

    contracting and negotiation with ontology-based mobile services (service level agreements)
    semantic annotation and reasoning involving semantic metadata
    combining thematic metadata with locational/georeference metadata in mobile applications
    approaches to composition of ontology based mobile services
    invocation, adaptive execution, monitoring, and management of mobile services
    interaction protocols and conversation models for mobile services
    ontology-based security and privacy issues in mobile services
    mobile service applications
    analysis and design approaches for mobile services
    reasoning with mobile services
    ontology-based policies for mobile services
    tools for discovery, matchmaking, selection, mediation, composition, management, and monitoring of mobile services
    mobile service development
    multi agent systems and mobile services

SUBMISSION PROCESS

Submissions to this special issue should follow the journal's GUIDELINES FOR SUBMISSION .

After submitting the paper, please also inform guest editors by an email with the paper ID assigned by the submission system. Papers must be of high quality and should clearly state the technical issue(s) being addressed as related to mobile services and ontologies. Research papers should present a proof of concept for any novel technique they are proposing. Case studies should discuss the significance and applicability of their proposed architecture/system. If a submission is based on a prior publication in a workshop or conference, the journal submission must involve substantial advance (a min. of 30%) in conceptual terms as well as in exposition (e.g., more comprehensive testing/evaluation/validation or additional applications/usage).

All papers must be submitted by **April 30, 2007**. The editors recommend that the number of pages should not exceed 35. All papers are subject to peer review performed by three established researchers selected from a panel of reviewers established for this special issue. Accepted papers have an opportunity for further revision and an additional round of reviewer feedback. Information on the journal with online submission can be found at: http://www.ijswis.org. Please submit manuscripts through the online system at: http://www.ijswis.org.

IMPORTANT DATES
- Submissions: April 30, 2007
- Completion of first round of reviews: July 31
- Notifications: August 15, 2007
- Revised papers: October 31, 2007
- Notifications of final acceptance: November 30, 2007
- Final papers due to Special Issue Editors: December 31, 2007
- Publication: Third issue 2008 (Vol. 4, issue 3)

International Journal on Semantic Web and Information Systems

An Official Publication of the [Information Resources Management Association](#) since 2005

Vol. 2, Issue 3

Click on the content to view the description

Vol. 2, Issue 4

Click on the content to view the description

Don't miss the excellent preface by EIC, Prof. Amit Sheth.

It is available for free download through tthis URL:

http://www.igi-pub.com/files/prefaces/ijswis%20preface%202(4).pdf

Special Issue on
Knowledge And Data Engineering in the Semantic Web Era @ IEEE Transactions on Knowledge and Data Engineering

IEEE TKDE issue of Feb 2007 on line: SPECIAL ISSUE ON THE SEMANTIC WEB ERA
IEEE Transactions on Knowledge and Data Engineering

Dear all,
We are really happy since it is just published the IEEE TKDE special issue on Semantic Web that we developed for more than 1,5 years.
More information:
http://www.computer.org/portal/site/transactions/tkde/content/index.jsp?pageID=tkde_home
All the articles are available from the IEEE Digital Library:
http://csdl2.computer.org/persagen/DLAbsToc.jsp?resourcePath=/dl/trans/tk/&toc=comp/trans/tk/2007/02/k2toc.xml
The editorial entitled:
Revisiting the (Machine) Semantic Web: The Missing Layers for the Human
Semantic Web by Gottfried Vossen, Miltiadis Lytras, Nick Koudas is available open access at:
http://www.computer.org/portal/cms_docs_transactions/transactions/tkde/featured_article/k0145.pdf
We do believe that this collection of papers is an excellent contribution to the literature of the Semantic Web. We are happy to finalize this special issue and we are really looking forward to your comments. We invite you to work together to develop all of the required bridges between the knowledge and data engineering community and the business world in order to provide the required common ground for exploiting the fascinating technologies of Semantic Web for the promotion of the Knowledge Society. A convergence of computer engineering and management/business strategies will set the Semantics of Business as a key priority for the next years.

Gottfried Vossen, Miltiadis Lytras, Nick Koudas

SPECIAL ISSUE ON THE SEMANTIC WEB ERA

Editorial: Revisiting the (Machine) Semantic Web: The Missing Layers
for the Human Semantic Web
Gottfried Vossen, Miltiadis Lytras, Nick Koudas
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.30

Bottom-Up Extraction and Trust-Based Refinement of Ontology Metadata
Paolo Ceravolo, Ernesto Damiani, Marco Viviani
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.23

Mining Generalized Associations of Semantic Relations from Textual Web Content
Tao Jiang, Ah-Hwee Tan, Ke Wang
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.36

A Taxonomy Learning Method and Its Application to Characterize a

Scientific Web Community
Paola Velardi, Alessandro Cucchiarelli, Micha'l Petit
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.21

RDFS(FA): Connecting RDF(S) and OWL DL
Jeff Z. Pan, Ian Horrocks
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.37

Introducing Time into RDF
Claudio Gutierrez, Carlos A. Hurtado, Alejandro Vaisman
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.34

Interoperability Support between MPEG-7/21 and OWL in DS-MIRF
Chrisa Tsinaraki, Panagiotis Polydoros, Stavros Christodoulakis
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.33

DR-Prolog: A System for Defeasible Reasoning with Rules and Ontologies
on the Semantic Web
Grigoris Antoniou, Antonis Bikakis
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.29

A Flexible Ontology Reasoning Architecture for the Semantic Web
Jeff Z. Pan
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.17

An Adaptation of the Vector-Space Model for Ontology-Based Information Retrieval
Pablo Castells, Miriam Fern‡ndez, David Vallet
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.22

A Relation-Based Search Engine in Semantic Web
Yufei Li, Yuan Wang, Xiaotao Huang
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.18

A Semantic Web-Based Approach to Knowledge Management for Grid Applications
Liming Chen, Nigel R. Shadbolt, Carole A. Goble
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.20

A Requirements Driven Framework for Benchmarking Semantic Web
Knowledge Base Systems
Yuanbo Guo, Abir Qasem, Zhengxiang Pan, Jeff Heflin
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.19

From Wrapping to Knowledge
JosŽ L. Arjona, Rafael Corchuelo, David Ruiz, Miguel Toro
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.31

A Component Model and Infrastructure for a Fluid Web
AndrŽ Santanch , Claudia Bauzer Medeiros
http://doi.ieeecomputersociety.org/10.1109/TKDE.2007.16

ATHENA'S WORLD SUMMIT KNOWLEDGE SOCIETY:
We want a better world for ALL
OPEN SOCIETY – OPEN RESEARCH – OPEN KNOWLEDGE – OPEN LEARNING
ATHENS, GREECE SPRING 2008

Dear All,

We are working hard towards the organization of an excellent WORLD SUMMIT in Athens Greece, in the SPRING of 2008, which is organized with the sponsoring and support of OPEN RESEARCH- OPEN KNOWLEDGE SOCIETY, NGO, and many public and private organizations and companies. Towards this milestone we will announce 50 special issues in International Full Referred Scientific Journals aiming to define the AGENDA for the ISSUES that REALLY MATTER our world nowadays.

Please find in the special section of the bulletin the Call for Papers of the 13 first special issues – aiming to support debate and tracks in the ATHENA's WORLD SUMMIT on KNOWLEDGE SOCIETY. We are really looking forward for your support. Our deepest appreciation, respect and thank you to 1000s people worldwide that support our INITIATIVE. Let us dream TOGETHER a BETTER WORLD for ALL based on Collaboration and understanding. TOGETHER WE can make IT.

Best Regards

Dr. Miltiadis D. Lytras

PRESIDENT of OPEN RESEARCH, OPEN KNOWLEDGE SOCIETY, NGO

[don't hesitate to send a mail to me at Lytras@ceid.upatras.gr]

RESEARCH PAPERS IN THIS ISSUE

RONTO: Relational to Ontology Schema Matching

Petros Papapanagiotou, Polyxeni Katsiouli, Vassileios Tsetsos, Christos Anagnostopoulos and Stathes Hadjiefthymiades

University of Athens, Department of Informatics and Telecommunications,
Pervasive Computing Research Group
Panepistimiopolis, Ilissia, 15784, Athens, Greece

P.Papapanagiotou@sms.ed.ac.uk, {polina, b.tsetsos, bleu, shadj}@di.uoa.gr

http://p-comp.di.uoa.gr

Abstract: *The population of ontologies with real instances still remains a major practical issue for the Semantic Web community. Significant progress towards a solution for this issue can be achieved through the migration of data stored in existing relational databases. In this paper we present a schema matching methodology and its implementation, necessary for further data migration.*

1. Introduction

Semantic Web (SW) [4] is already in its implementation phase, with ontologies playing a core modeling role. Great progress has already been achieved in many SW areas, such as ontological engineering, Description Logics (DL) reasoning, and query languages. However, an important problem still remains unsolved: *lack of real semantically-annotated data*. With the proposed system, called RONTO, we try to address this problem through a) the schema matching between relational schemata and SW ontologies, and, b) the population of SW ontologies with data from relational databases. The rational behind our approach is based on the fact that a lot of information in the Web is stored in relational databases, which form the so-called Deep Web [3]. In the following sections we briefly describe the RONTO system design and prototype implementation, focusing on the schema matching processes.

2. Related Work

Schema matching is a research field that has attracted the interest of the data and knowledge engineering community. Most researchers study schema matching in a specific context (e.g., relational to object-oriented, relational to XML schema). Some researchers have also tried to generalize the matching process and have proposed generic algorithms for schema mapping. Concerning the relational to ontology case, KAON Reverse [9] is among the first semi-automatic tools for schema matching and data migration. It adopts a reverse engineering approach and the schema mapping is based on fixed rules, which are defined manually by users. COMA++ [2] is another matching tool with a graphical user interface. The main characteristic of COMA++ is the fact that it combines different matchmaking algorithms. COMA++ provides also the user with the ability to compose, merge and reuse existing mappings. Finally, MapOnto [11] is an ongoing project, which establishes semantic mappings between database schemata and ontologies as well as between different database schemata.

3. Schema Matching Methodology
3.1 Definitions

Before discussing the adopted methodology we should make some assumptions for the main elements involved in RONTO. Firstly, we assume that the source schema is a relational database schema, RDB, deployed on a typical commercial relational database management system. We also assume that the conceptual schema of the target ontology (ONT) is expressed in a DL language, due to the popularity of DLs in the SW community.

Moreover, in order to better describe the presented methodology, several intermediate modeling elements are introduced:

Definition 1. A *Candidate Concept* for an ontology concept c, CC_c, may be (i) an RDB relation, or (ii) an RDB view or (iii) a combination of them, which is *structurally* and "*semantically* similar" to the concept c of the target ontology.

Definition 2. A *Candidate Datatype-Property* for a datatype-property p, CDP_p, is an attribute of an RDB relation[2], which has the *same* (or a *compatible*) *data type*, and is "*semantically* similar" to the datatype-property p of the target ontology. Similarly we can define the *Candidate Object-Property* for an object-property p, COP_p.

Definition 3. A *Candidate Concept Set, CCS_C*, for an ontology concept c is the set of all CCs that can be computed for the concept c. Similarly, Candidate Datatype-property Sets (CDPS) and Candidate Object-Property Sets (COPS) are defined. Each element e of such sets is associated with a degree of similarity, *sim(e, r)*, where r is an element belonging to the target ontology. The similarity *threshold*, (i.e., the minimum acceptable similarity value) depends on the user.

As already stated, the RONTO methodology for schema matching is heavily based on different types of similarity (linguistic, semantic similarity and data type compatibility) and exploits a variety of similarity measures in order to effectively perform the schema matching. Linguistic similarity measures compare the schema elements based on the lexicographic characteristics of their names/labels. Semantic similarity measures are used for schema element names that are valid words. In order to compute such similarity,

---

[2] We assume columns that are not foreign keys.

techniques like those described in [7] are used. The compound similarity between two schema elements, $a \in$ RDB and $b \in$ ONT, is the weighted sum of the aforementioned similarity measures.

3.2 Matching Steps

In order to achieve the schema matching and data migration procedures, we have designed a complete methodology which is based on similarity measures in order to assess mappings. This methodology is composed of the following algorithms:

- **Tables to Concepts Mapping.** *We find all the CCs for each concept $c \in$ ONT. Note that the database tables representing N:M relationships between two different relations are excluded from this mapping phase.*

- **Attributes to Datatype-properties Mapping.** *The methodology proceeds with the computation of the mappings between the relation attributes and the datatype-properties of the ontology. Foreign keys are excluded from this step. In this step, we consider not only the (linguistic and semantic) similarity between the labels of the elements, but also the data type compatibility between the RDB attributes and the range of each datatype-property.*

- **Foreign Keys to Object-properties Mapping.** *According to the OWL-DL [1] language, an object-property expresses a binary relationship between two concepts of the ontology. In relational databases, relationships among tables are expressed through referential constraints, represented by foreign keys. The present process defines mappings between such database elements and the object-properties of the ontology.*

- *N:M Relations to Object-properties Mapping.* Except from the referential constraints, there are also database relations which represent binary relationships between two tables. Such relations may constitute COPs for the object-properties of the ontology.

- *Joined Tables to Concepts Mapping.* There are some cases in which the information content carried by one concept is distributed in more than one relations of the database (i.e., joins). Therefore, RONTO computes all the possible joins between the database relations. Next, it applies a two-step algorithm. In the first step, the algorithm clusters the database relations which have an attribute similar to a datatype-property of a specific concept c. Moreover, it computes all possible joins between different relations from different sets (i.e., CCS_c). During the second step, the algorithm eliminates, for each object-property p of concept c with range R, all the CCs from the CCS_c which do not have a foreign key referencing the primary key of a CC which belongs to the CCS_R. The same rule is also applied to CCs from CCS_R, which do not contain a primary key referenced by a foreign key from a CC of CCS_c.

- *Attributes to Object-properties Mapping.* This step deals with cases where a database attribute can be mapped to an object-property of the ontology.

3.3 Implementation Details

RONTO is a tool developed as a Protégé plug-in, since Protégé [6] is currently the most popular open-source ontology editor with a very large community of users and developers. The mapping is performed under human supervision through a friendly graphical user interface. RONTO makes use of the Protégé OWL Plug-in API for handling ontologies in conjunction with a JDBC-based module for handling relational databases. The latter module extracts the database meta-data and presents it to the user in tree-like structures similar to the ones used by Protégé for presenting conceptual hierarchies. Users can request additional information about the database, including all the possible joins between the database relations. RONTO guides, in a step-by-step way, the users through the matching process. Starting from the Tables to Concepts mapping, RONTO visualizes all the automatically calculated matches and their respective similarity measures as lines connecting the two matching elements. The user can accept or reject the proposed mappings before proceeding to the next step. She can also manually map elements whose similarity has not been correctly detected by the system.

RONTO uses a variety of similarity techniques. Users can choose which of these techniques should be used for each mapping step and may also tweak the similarity threshold at every step. Thus, they have full control over the automated part of the schema matching procedure. The results produced by this prototype version of RONTO can be stored either in a proprietary or a D2R Map format. D2R Map [10] is a declarative language to describe mappings between relational database schemata and OWL/RDFS ontologies. We have

performed a preliminary evaluation of the RONTO prototype with some artificial datasets and compared the results with some expert mappings, which were obtained by performing the task manually. The evaluation was based on metrics commonly uses in schema matching such as precision, recall and F-measure [5]. RONTO demonstrated high precision and recall values, especially in large schemata and schemata with elements having high degree of semantic similarity.
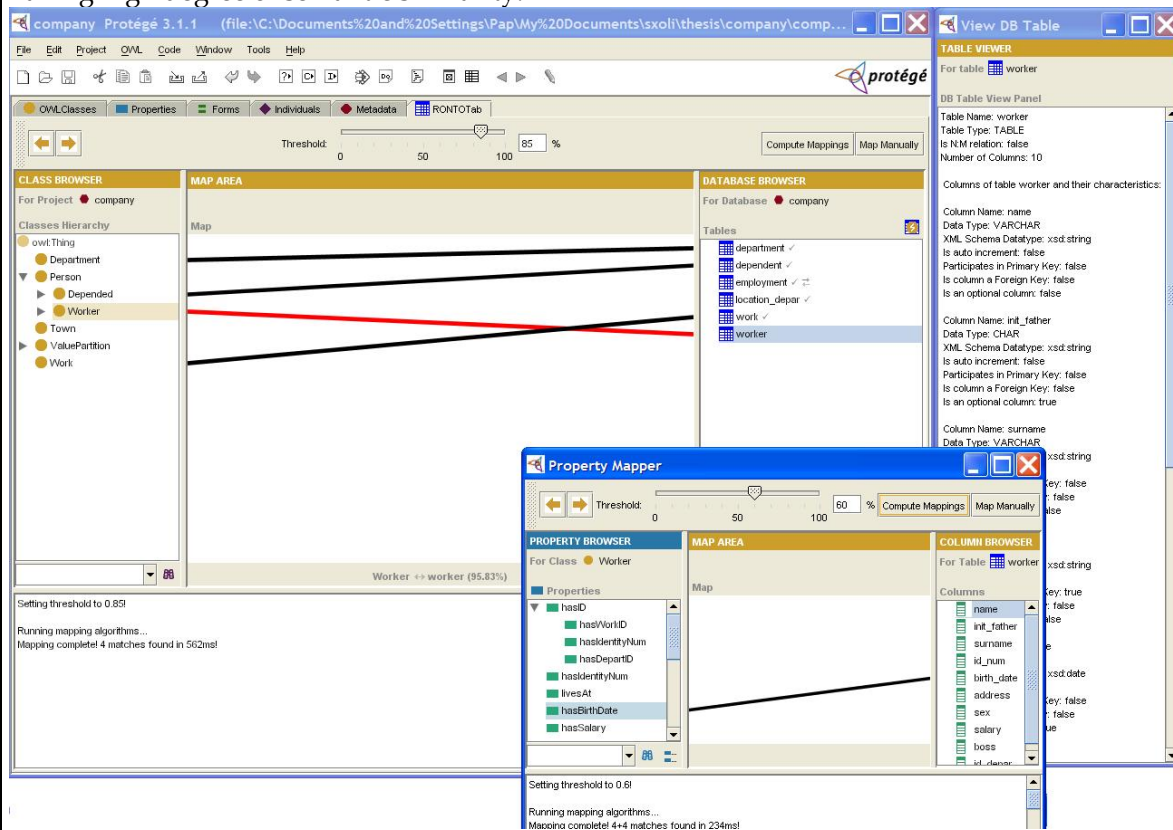

Figure 1. Screenshot of the RONTO plug-in

4. Conclusion

We have briefly presented the design of a new tool for schema matching that addresses in a practical way the requirement for actual data in the Semantic Web. The main steps of the matching methodology were presented along with some implementation details. However, there are a lot of open issues in SW-related schema matching research, especially when the schemata are very diverse. For instance, it would be very useful if we could automatically identify n-ary database relationships and map them to ontological properties. This task becomes more challenging if we consider that there is no standard representation of n-ary relationships in databases and ontologies. We are currently working on the improvement of our matching methodology by taking into account the cardinality constraints that may exist in a conceptual schema. Finally, we try to build appropriate datasets in order to evaluate the performance and effectiveness of our approach and compare it to other existing approaches.

6. References

[1]. Antoniou, G., van Harmelen, F. (2004 April). A Semantic Web Primer, The MIT Press.

[2]. Aumueller, D., et al. (2005). Schema and Ontology Matching with COMA++, SIGMOD.

[3]. Bergman M. (2000). The Deep Web, Surfacing Hidden Value, The Journal of Electronic Publishing 7 (1).

[4]. Berners-Lee, T., et al. (2001, May). The semantic web, Scientific American.

[5]. Do, H., et al. (2002). Comparison of Schema Matching Evaluations, Proceedings GI-Workshop "Web and Databases"

[6]. Gennari, J., et al. (2002). The Evolution of Protege: An Environment for Knowledge-Based Systems Development. International Journal of Human-Computer Studies

[7]. Pedersen, T., et al. (2004). Wordnet::similarity – measuring the relatedness of concepts. Fifth Annual Meeting of the North American Chapter of the ACL (NAACL-04), Boston, MA.

[8]. Rahm, E., Bernstein, P.A. (2001). A Survey of Approaches to Automatic Schema Matching. VLDB Journal, 10(4):334-350.

[9]. Stojanovic, N., et al. (2002). A reverse engineering approach for migrating data-intensive web sites to the Semantic Web, In Proceedings of the Conference on Intelligent Information Processing, World Computer Congress, Montreal, Canada, Kluwer, Academic Publishers.

[10]. Bizer, C. (2003). D2Rmap- A Database to RDF Mapping Language, Budapest, Hungary, Poster at the 12th World Wide Web Conference.

[11]. Yuan, A., et al. (2005). Inferring Complex Semantic Mappings between Relational Tables and Ontologies from Simple Correspondences. In Proceedings of CoopIs/DOA/ODBASE.

	Petros Papapanagiotoy, Greece received his B.Sc. in Informatics from the Department of Informatics & Telecommunications at the University of Athens, Greece in 2006. Nowadays he is a M.Sc. student at University of Edinburgh. His research focuses on Semantic Web and knowledge representation and reasoning.
	Polyxeni Katsiouli, Greece received her B.Sc. in Informatics from the Department of Informatics & Telecommunications at the University of Athens, Greece in 2006. Nowadays she is a M.Sc. student at Athens University of Economics and Business. Her research focuses on Semantic Web, semantic hypermedia and ontology learning.
	Vassileios Tsetsos, Greece received his B.Sc. in Informatics from the Department of Informatics & Telecommunications at the University of Athens, Greece in 2003 and a M.Sc. in "Communication Systems and Data Networks" from the same department in 2005. Nowadays he is a Ph.D. student at the same department. His research focuses on Semantic Web services, ontological engineering and pervasive computing.
	Christos Anagnostopoulos, Greece received his B.Sc. in Informatics from the Department of Informatics & Telecommunications at the University of Athens, Greece in 2001 and a M.Sc. in "Advanced Information Systems" from the same department in 2003. Nowadays he is a Ph.D. student at the same department. His research focuses on context-/situation-awareness, contextual reasoning and pervasive computing.
	Stathes Hadjiefthymiades, Greece received his B.Sc. in Computer Science from the Department of Informatics at the University of Athens, Greece in 1993 and his M.Sc. in Advanced Information Systems from the same department in 1996. In 1999 he received his Ph.D. from the same department. In June 2002 he received a Joint Engineering-Economics M.Sc. degree from the National Technical University of Athens. Since December 2003 he is an Assistant Professor at the Dept. of Informatics and Telecommunications, University of Athens. His research interests are in the areas of wireless/mobile/pervasive computing and networked multimedia applications.

Pervasive E-learning System Based on Distributed Data Warehouse
M. Soussi, J. Akaichi

Computer Science Department
ISG - University of Tunis
41, Avenue de la Liberté
Cité Bouchoucha
Le Bardo 2000
TUNISIA
{Meriem.Soussi, Jalel.Akaichi}@isg.rnu.tn

Abstract. In this paper, we present a pervasive e-learning environment in which educational and informational resources are distributed in different data marts and users utilize smart devices to accede data marts information via a wireless network. Mobile agents are used to reach the different Data Marts information and provide it to smart device users.
Key words. Wi-fi, Data Warehouse, E-learning, Mobile agents, Data Mart.

1. Introduction

Traditional learning [23] is characterized by students and teachers physical presence in a built classroom. This way of learning has different limits such us shy students can't participate in classroom conversations, far from school students suffer from reaching school hard conditions, economic constraints... which can affect negatively their results. The solution is to liberate students from the physical presence in class by profiting from communication and information technologies growth, sophistication and use spread such us Internet, Personnel Digital Assistant, wireless networks advances [17]. In fact, nowadays we live the entrance of new technologies in our daily life: many students possess cellular phones [1], portable personnel computers [23], Personal Digital Assistants (PDA) [21], smart cell phones [23]. These mobile devices have capacities to connect wireless networks, to collect information, to store and to display it. In addition, we has to profit from computing research advances such us Data Warehouse, Pervasive Computing researches [16] [3] [7] [19] [6] which cover several domains such us the medical domain [5] [12] [9] [13] [8] [18], the learning domain [14] and entertainment domain [10] in order to ameliorate the provided services and enhance the learning process.

Our solution consists on exploiting these progresses to form a wireless e-learning network established using Bluetooth technology [25] or the Wi-fi one [23] where e-learning information are contained in different e-learning data marts distributed in different regions to which users can accede using their mobile devices where ever and when ever they want.

We think that is an original idea to become independent from time and place to follow courses in virtual classrooms: a student participating in our e-learning system will be able to choose freely his convenient time, his favorite place and his appropriate device to perfectly take place in a lesson.

2. Distributed e-learning Data Warehouse

E-learning Data Warehouse (EDW) [4] is a repository of information gathered from distributed e-learning information sources in order to resolve the problem of information systems heterogeneity, facilitate information consultation, and reduce network traffic and communication costs. EDW information can be distributed into different data marts [2] [11] which are sub sets of the EDW concerning a specific subject, department or used by particular users according to a specific criterion in order to facilitate information research, decreasing user time waiting for a particular data because they have smaller contained information oriented subject than a Data Warehouse. These Data Marts (DM) can be distributed in a same region (see figure 1) or in different ones (see figure 2). Each user, independently of his location, can consult local or far data marts information.
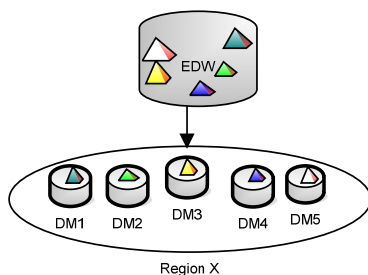
Figure 1. *Distributed EDW in a same region*
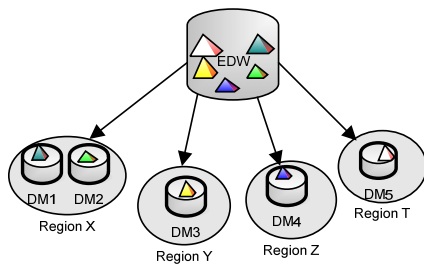
Figure 2. *Distributed EDW in different regions*

3. Pervasive e-learning system

In order to facilitate the use and ameliorate the performance of our e-learning system, users can utilize different types of intelligent mobile devices to connect our wireless e-learning network and to consult the different e-learning Data Marts information. In fact, users are not restricted to use a home or a work personnel computer integrated into a specific permanent cabled network to take decisions or to consult information. But, they can simply use their cell phones offering a human interface by which they can interact and have a wireless connection to our e-learning network to beneficiate from the offered services anywhere and anytime they need.

Users concerned by our e-learning system can be students, teachers, or system administrator:

- Students need to consult courses, exercises, documents and exam schedule...
- Teachers need to ask students information, courses for which they are responsible, publications, digital libraries...
- System administrator needs to modify network configuration parameters...

Our proposed e-learning system offers supplement advantages than giving users the opportunity to connect an e-learning wireless system using mobile devices independent from places and times. In fact, we propose in addition to cited advantages an e-learning system that fits with user preferences, moods, habits, beliefs, desires and contexts. An example of preferences is a particular format of information display. Habits can be, for example, listening music while studying or reading the latest news before beginning studying. By user context, we mean any information about the circumstances, objects, or conditions by which a user is surrounded [22].

Our system will take into consideration all these aspects to provide personalized courses for each user. That's why our e-learning system is called a pervasive or a ubiquitous e-learning system [24]. In fact, it has the potential to revolutionize education and remove many of the physical constraints of traditional learning. Furthermore, the integration of adaptive learning with ubiquitous computing and learning may offer great innovation in the delivery of education allowing for personalization and customization to student needs [24]. Our pervasive e-learning system suggests a smart learning environment [15] in which students reach easily and implicitly courses, magazines, publications, and etc.

Information queries needed to provide learning services will be triggered implicitly by users' mobile devices basing on user preferences or explicitly if the user needs supplement information. For example, when a student takes his mobile device, this latter will display automatically courses list corresponding to his level and in a certain format relating to his preferences, and launch a music depending on his habits in this time. The student device reacts differently if the student changes his context, preference or level.

To process as we explained, mobile devices must be sensitive and intelligent that's mean context and user information aware. For these reasons, sensors [24] will be used integrated to these devices or used in vicinity to them to detect user presence and movement, place or time changes, and weather characteristics in order to send this information to their related mobile device. In addition to these mobile devices needed characteristics, mobile devices must offer an easy use for users, for example a student can demand specific information manually by reading it or by raising his hands or vocally by a voice request or just by moving in vicinity of a sensor.

Remark

A user profile data base is conceived to contain our e-learning system user profiles because if such information is stored in users' mobile devices, users can't change other devices to connect our system.

3.1 Mobile devices memories

We propose two types of memories that each mobile device should have to connect our wireless e-learning network. These memories are a cache data warehouse and a temporary data warehouse suggested in order to perform our pervasive e-learning system functioning and facing the problem of mobile devices network connection instability, error rates high unpredictability and grand response time.

3.1.1 A Cache Data Warehouse

A cache data warehouse is a permanent memory proposed to contain frequent needed data extracted from different e-learning Data Marts to satisfy user requirements basing on his profile. This memory can reduce communication costs, network traffics and query response time because reaching local or far data marts information will be only needed when the information required doesn't exist in the mobile device cache data warehouse.

An example of frequently needed information by a user mobile device is its user profile which is demanded every time to respond correctly user demands or context changes.

The cache data warehouse is dynamic and content modifiable after user profile changes. In fact, a modification of mobile devices cache memories content is necessary to preserve its goal of decreasing query runtime and reducing communication costs and network traffic. For example, a student hasn't the same required information when he becomes teacher in our e-learning system.

Also, this memory content is updatable and adaptable after information sources data or schema changes. In fact, information sources feeding the different data marts using views can change continuously their contents and their schemas (relation or attribute delete, rename...) affecting the views and cache memories content. So, a synchronization process, based on MobileEVE principles, is necessary to rewrite these affected views in order to become adapted to the current information space. After that, an adaptation process is needed to be executed in each data mart having an affected content by the detected schema changes and in each mobile device cache memory having affected information by the view rewritings when it connects the e-learning wireless network (see figure 3).

In the case of information source data change detection, an adaptation process is not triggered automatically as in schema changes detection, but it is done at the end of an interval of time fixed by our pervasive e-learning system administrator and judged necessary for data marts information adaptation. This latter will be performed in each mobile device cache memory having an affected content by the detected data changes when it connects the wireless e-learning network.
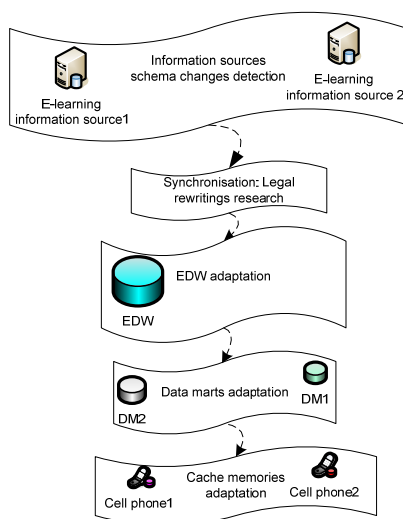
Figure 3. *E-learning information sources schema changes repercussion*

3.1.2 A Temporary Data Warehouse

A Temporary Data Warehouse is a temporary memory required to be implemented in each mobile device used to connect our pervasive e-learning system. It is a volatile memory containing the latest information required implicitly by a user mobile device or explicitly by the user in an only one connection basing on statistics showing that there is a grand probability to ask the recent consulted information by users in the near future. Its goal is to avoid an inutile query runtime by storing temporally the result of a recent identical one. The particularity of a temporary memory is to be quickly reached by the mobile device processor.

As we have explained, the two types of memories are proposed in order to reach rapidly the needed information responding to mobile device user queries while reducing network traffics and communication costs.

4. Query processing

In our pervasive e-learning system, we often need to extract information from users' mobile devices memories or from the different e-learning Data Marts in order to response users' explicit or implicit queries. The extraction needs the

collaboration of different actors which are user mobile devices, local data servers, mobile agents [1] [20] and far data servers.

4.1 Mobile device functioning

As we are in a pervasive environment, a user mobile device must know its user profile to require the needed information corresponding to this profile. For that, when a mobile device connects our wireless e-learning network for the first time, an implicit initial query is sent to the user profile data base to extract its user profile. Otherwise, an internal query is sent to extract its user profile from the cache data warehouse in order to place it in the temporary one as the user profile is frequently used and asked information.

After that, depending on detected context changes and the accessible user profile, the mobile device determines the needed information to provide and fetches it in its memories. In the case of a positive research and the information is included in the temporary data warehouse, the mobile device extracts the information and displays it according to user preferred format. Else, if the information needed belongs to its cache data warehouse, the mobile device transports it to the temporary one then displays it. Else, it sends a query to the local data server, according to its current location, to execute it and waits the result. Meanwhile, the mobile device may change its initial location. So, it should send this information to the initial data server while moving. Once the query result is received, the mobile device displays it and updates the temporary data warehouse by adding the received information using a Least Recently Used (LRU) algorithm for an eventual future use.

The following figure resumes the described mobile device functioning.
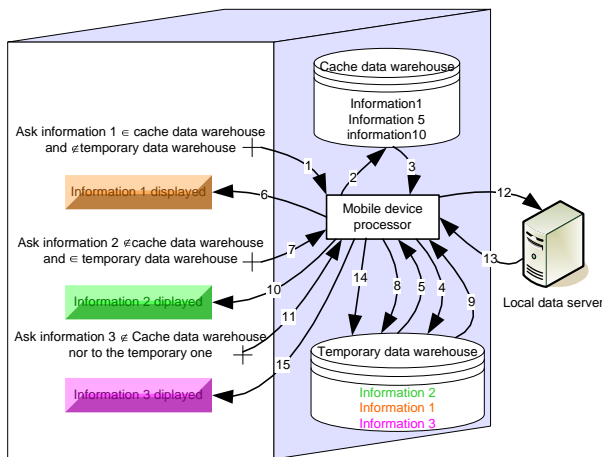
Figure 4. *Mobile device functioning*

Our pervasive e-learning system also gives users the possibility to ask explicitly information. In this case, the same previous described progress is done by the mobile device to collect the needed information which is a local research in memories, if ok then the information is directly and rapidly displayed to user, otherwise a query is sent to the local data server relatively to user location in order to have the needed information.

4.2 Local Data Server functioning

Once a local data server receives the query execution requirement from a mobile device, it stores the query source mobile device location, then analyses the received query to find the different information needed to respond and determines if the information required belongs totally or partially or doesn't belong to local data marts of which it is responsible basing on information table composed by the different local data marts and information containing on them and another table containing the different distant data servers and information of which they are responsible.

- In the case of a positive verification and all information needed is contained in the local data mart(s) (scenario 1), it sends a mobile agent which is a mobile software entity able to move from one platform to another to get the required information from the identified local data mart(s). This mobile agent moves to the data mart(s) destination, extracts the information and returns to its local data server location. Then, the local data server consults the new query source mobile device location to determine if it stills in its coverage zone or not.

- If the user belongs to its coverage zone (scenario 1.1), the local data server sends it the result to be displayed (see the following figure).
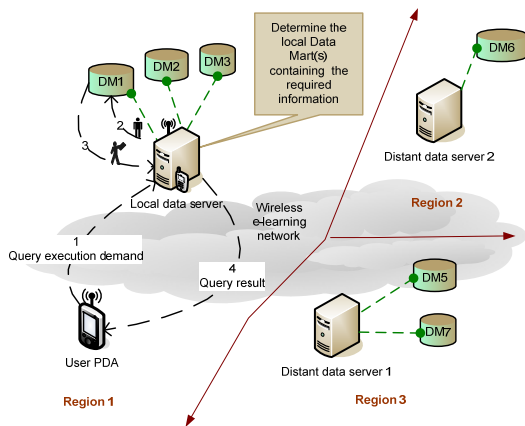
Figure 5. *Local data server functioning (scenario 1.1)*

-Otherwise (scenario 1.2), a mobile agent will be sent to the distant data server relatively to the new mobile device location which will be responsible of the result sending (see the following figure).
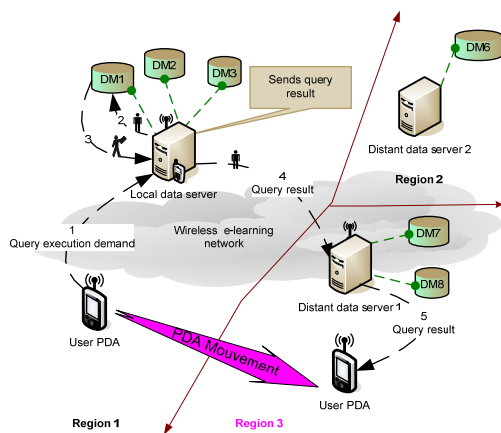
Figure 6. *Local data server functioning (scenario 1.2)*

- In the case of a positive verification and some of the information needed is contained in local data mart(s) and the rest belongs to distant ones (scenario 2), the local data server sends many mobile agents: one among them is responsible of getting the required information from the identified local data mart(s) and the others move to the far data mart(s) destination, extract the information and return to their local data server location (initial site). The local data server has the same mission when it receives the needed information from the sent mobile agents as the first case.

- If the needed information doesn't belong to any of the local data marts (scenario 3), the local data server determines the distant data server responsible of the data mart containing the query response, and sends mobile agents able to migrate to distant data servers destination across the wireless e-learning network. Once the mobile agents reach the distant data server (s), this latter will precise to them the specific data mart address containing the required information from which the mobile agents extract the information and re-reaches its initial data server. This latter will send, as the first scenario, the response to the query source mobile device relatively to its new location (see the following figure).
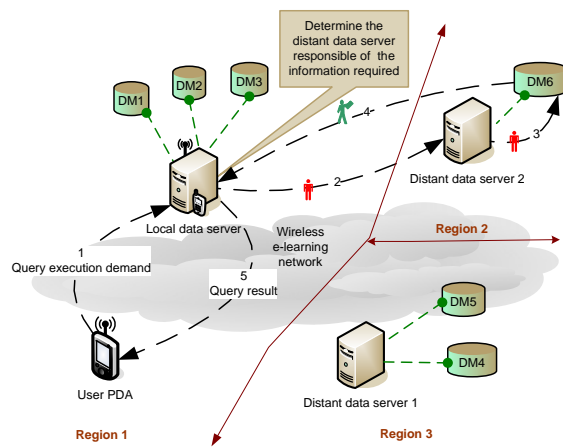
Figure 7. *Local data server functioning (scenario 3)*

5. Conclusion

In this paper, we have proposed a solution to rapidly reach information in a pervasive e-learning environment basing on mobile agent paradigm, data warehouse and data marts technology and mobile devices advances.

The WeSee Approach: Web Services Evolving under the Underlying Information Sources

M. Soussi, J. Akaichi
Computer Science Department
ISG - University of Tunis
41, Avenue de la Liberté
Cité Bouchoucha
Le Bardo 2000
TUNISIA
{Meriem.Soussi, Jalel.Akaichi}@isg.rnu.tn

Abstract. *Most of web services are built among distributed, heterogonous and autonomous information sources which can change continuously not only contents but also their schema, and consequently may render web services defined upon them partially or totally undefined. In this paper, we propose a solution called **Web Services evolving (WeSee)** able to tackle the above problem by determining substitutions for web services affected components by the underlying information sources schema changes. WeSee is a middleware able to rewrite web services thanks to connection established between information sources and web services through three main components: a Meta Knowledge Base containing information sources descriptive knowledge, a View Knowledge Base enclosing web services and view definitions related to it, and a synchronization engine responsible for finding substitutions to affected view components after schema changes.*

Key-Words: *Web Services, Schema changes, Meta Knowledge, Synchronization*.

1 Introduction

A web service [10] [1] is a self-contained software program which can dynamically be discovered and invoked across the Web [9]. It is independent as possible from specific platforms and computing paradigms, mainly developed for inter organizational cases, and easily composable so that developing adapters during composition are not required [3].

Most of web services are built by gathering data from information sources thanks to view definitions included into them. In fact, information sources in such environments can change continuously not only their contents but also their schemas which may render web services view definitions built upon them undefined. Thus, solutions have to be proposed to solve such a problem in order to preserve the maximum number of web services instead of being completely bewildered with information source schema changes happening more and more frequently for various reasons (design, evolving, etc).

After schema changes, web services are usually rewritten explicitly. This task is hardly and manually performed by web services developers. At the best of our knowledge, we are the first to address this problem to which we propose the WeSee system as a solution, based on EVE project principles [5]. Our solution consists on automating web services view definitions rewriting thanks to Meta knowledge about information space formed by information sources, to Meta knowledge about user space constituted by evolving web services view definitions, and web services view synchronization algorithms.

Our paper is organized as follows:

- In section 2, we present a model to web services and the WeSee framework.
- In section 3, we discuss the web services synchronization system using mobile agents.
- In section 4, we conclude this paper while citing some perspectives.

2 Web Services Synchronization System

2.1 Web Service Model

We suppose that a web service is composed by two main components executed iteratively (see figure 1):

 - A dynamic web service part including requests or view definitions written using E-SQL [5].

 - A static web service part containing everything else such as presentation components.

```
ALGORITHM
WEB_SERVICE;

WHILE (TRUE)
{
WEB   SERVICE   STATIC
PART;
WEB   SERVICE   DYNAMIC
PART;
}
```
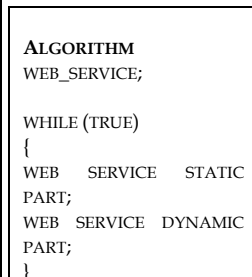
Figure 1. *Web Service Model*

A web service may be totally or partially affected. It is totally affected when the whole service is not accessible and it is partially affected when only some or all of its Dynamic Web Service Parts are affected. In this work, we propose to partially synchronize affected web services to guarantee their survival.

2.2 The WeSee System Framework

The WeSee approach proposes a solution to solve the problem of Dynamic Web Service Parts inflexibility. This solution has the goal to preserve the maximum number of affected web services by the occurrence of information sources schema changes, allowing implicitly the web services evolving which is, most of the time, carried out by web services developers. The WeSee system assumes that information sources are integrated in the system via a wrapper which translates their models into a relational common model. These information sources are supposed to be heterogeneous and autonomous which join, or change dynamically their capabilities such as their schema. Moreover, the WeSee system includes two basic modeling tools: a model permitting to user to express evolvable web services view definition via an extended SQL called Evolvable SQL (E-SQL) [5] and a model for the description of the participating information sources

(MISD) [5] and the relationships between them. This model of ISs description can be exploited for seeking a suitable substitution for the affected view definition components (attributes, relations, and conditions).

The View Knowledge Base (VKB) containing the web service view definitions described by E-SQL and the Meta Knowledge Base (MKB) containing substitution rules revealed by MISD, represent the base for any operation of view synchronization process.

2.2.1 WeSee Meta Knowledge Base

The WeSee system constitutes an intermediary between the web services and the information space including the participating data sources. When an information source joins the structure of the WeSee system, it provides its structure, its data model and eventually its content. This information is stored into the MKB with respect to the MISD. As well, the relationships between information sources, also called substitution rules represented by Join constraints, Partial/Complete constraints and Type Integrity constraints, can be added by the WeSee administrator and/or generated automatically, then inserted into the MKB.

Morover, we include into the MKB the description of all web services exploited by users using the structure (WSId, WSName, WSISIdList), where:

-WSId describes the web services identifier.
-WSName represents the web service name.
-WSISIdList symbolizes the information sources list included in the web service view definitions.

The MKB information constitutes the key for finding affected web services view definitions components substitutions.

2.2.2 WeSee View Knowledge Base

Another contribution of the WeSee approach is the use of the E-SQL language allowing user preferences placing into SQL web services view definitions. E-SQL is an extension of SELECT-FROM-WHERE SQL enriched by specifications defined by developers in charge of the view definitions in order to indicate how those latter can evolved.

The E-SQL view definitions are then stored into a structure called View Knowledge Base, following the structure (VDId, VDText). The VDId identifies an E-SQL view definition included into the web service, and the VDText describes its query text (see figure 3).

```
CREATE VIEW V [( LISTE_COLONNE_LOCALE)][(VE =['⊇' | '⊆' | '≡' | '≈' ]
AS
SELECT NOM_ATTRIBUT [(AD = [TRUE | FALSE], AR = [TRUE | FALSE])]
[, NOM_ATTRIBUT [(AD = [TRUE |FALSE], AR = [TRUE | FALSE])] ... ]
FROM NOM_RELATION [(RD = [TRUE | FALSE], RR = [TRUE | FALSE])]
 [, NOM_RELATION [(RD = [TRUE | FALSE], RR = [TRUE | FALSE])] ... ]
WHERE CLAUSE_PRIMITIVE [(CD = [TRUE | FALSE], CR = [TRUE | FALSE])]
[,CLAUSE_PRIMITIVE [(CD = [TRUE | FALSE], CR = [TRUE | FALSE])] ... ]
```

Figure 3. *E-SQL View Definition Text*

As indicated in figure 3, each view definition component (Attribute, Relation, or Condition) has two evolvable parameters which are detailed in the following table.

EVOLUTION PARAMETER	SEMANTICS	DEFAULT VALUE
ATTRIBUTE DISPENSABLE (AD)	TRUE : DISPENSABLE	FALSE
	FALSE : INDISPENSABLE	
ATTRIBUTE REPLACEABLE (AR)	TRUE : REPLACEABLE	FALSE
	FALSE : NO REPLACEABLE	
CONDITION DISPENSABLE (CD)	TRUE : DISPENSABLE	FALSE
	FALSE : INDISPENSABLE	
CONDITION REPLACEABLE (CR)	TRUE : REPLACEABLE	FALSE

		FALSE:NON REPLACEABLE	
RELATION DISPENSABLE (RD)		TRUE : DISPENSABLE	FALSE
		FALSE : INDISPENSABLE	
RELATION REPLACEABLE (RR)		TRUE : REPLACEABLE	FALSE
		FALSE : NO REPLACEABLE	

VIEW EXTENDS PARAMETERS	SEMANTICS
≡	V′ IS EQUAL TO V
⊇	V′ IS A SUPER SET OF V
⊆	V′ IS A SUBSET OF V
≈	INDIFFERENCE

Figure 4. *E-SQL View Evolvable Parameters*

Note that, to each web service, is associated a view definitions list (VDIdList) representing its dynamic web service Parts. This information is represented by the couple (WSId, VDIdList) stored in the VKB.

2.2.3 WeSee Synchronization Engine

The WeSee synchronization engine consists on determining legal rewritings for the affected dynamic web service parts, referring to the rules or constraints embodied into the MKB. These rules enable substitutions retrieval for the affected web service view definition components while respecting preference parameters described into the VKB. A dynamic web service parts rewriting is legal when it is compatible with the current information space described into the MKB. This rewriting has to preserve the information presented by the initial dynamic web service parts according to preferences parameters associated to its components and the possibilities of substitutions offered by the MISD.

But, before performing rewritings, the following tasks must be ensured:

-The detection of the affected information sources.
-The detection of the affected dynamic web service parts (affected web service view definitions).
-The detection of the affected web services.
-The detection of the affected substitution rules and knowledge.

These tasks are ensured by WeSee agents described in the following section.

3 WeSee Agents

Our proposed model inspired from EVE project is enhanced by mobile agent concepts [4] [6]. In fact, our WeSee system is based on four mobile agents which are the Detector Agent, MKB Agent, VKB Agent and the Web Synchronizer Agent. Communication between agents [5] can be ensured either by message sending or by agent migration. In our model communication will be guaranteed by the traditional message sending. In fact, all the agents of the model know each other directly via their identifier, names and sites. Thus, any agent of the system can communicate directly with any other agent.

In the following, we present the previous detailed WeSee framework (section 2) with the integration of the different mobile agents.
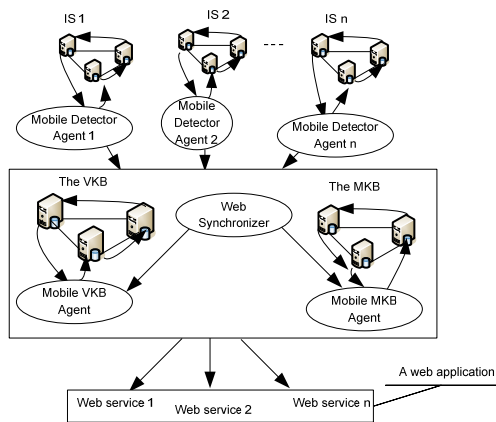
Figure 2. *TheWeSee Framework*

3.1 A Detector Agent

A Detector Agent is a mobile agent implemented into a distributed information source to detect the occurred changes on the level of the structures of the participating information source of which it is responsible in the system. Indeed, it starts to traverse all the sites lodging the information source with an aim to detect a change by comparing the schema of the source at moment t and at moment t-1 to check if there's an unstipulated change. Its mission consists on, transmitting any schema change occurred in the information source, to the MKB agent and the VKB agent.

The following algorithm resumes the Detector Agent functioning.

```
ALGORITHM 1 DETECTORAGENT
BEGIN
  WHILE TRUE DO
     // SC: INFORMATION SOURCE COMPONENT.
     //   IS_LIST:   INFORMATION   SOURCE
COMPONENTS LIST.
     FOR EACH SC IN IS_LIST DO
     BEGIN
        // DELTAS: THE SCHEMA COMPONENT
CHANGE.
        DELTAS <- SCT – SCT-1;
        IF DELTAS != ∅ THEN
          SENDMESSAGE (DELTAS, MKBAGENT);
          SENDMESSAGE (DELTAS, VKBAGENT);
        END IF
     END FOR;
  END WHILE;
END.
```

Figure 5. *The Detector agent functioning*

3.2 The MKB Agent

The MKB Agent has to process the data received from the different Detector Agents. These latter transmit to it any schema changes (DeltaS) occurred into any information source. The DeltaS data structure encapsulates too main fields: the affected component (attribute, relation, condition) and the operation nature made upon it (delete, rename, or add). After that, the MKB Agent analyses the Meta Knowledge Base in order to detect the whole unit of affected knowledge or rules and to send them to the Web Synchronizer Agent in order to determine a legal web services view rewriting.

3.3 The VKB Agent

The VKB Agent has the role of detecting the subset of web services view definitions affected by occurred schema changes. In fact, following the received changes, the VKB Agent checks within the VKB to determine the set of view definitions containing one or more components affected by the changes and their corresponding web services. After that,

the VKB Agent transmits the result, composed by the affected view definitions and the affected web services, to the Web Synchronizer Agent in order to perform the synchronization phase.

3.4 The Web Synchronizer Agent

After the reception of the affected rules from the MKB Agent, and the affected view definitions and the affected web services from the VKB Agent, the Web Synchronizer Agent starts to check if it is possible to determine legal rewritings for the affected views in order to create new web service view definitions compatible with the current state of the information space. For that, it refers to the users preferences including into the affected E-SQL web service views.

We remind that the Web Synchronizer Agent would not have to analyze all the view definitions stored into the VKB, nor all rules embodied into the MKB, but relatively a subset of them respectively detected by the VKB Agent and the MKB Agent where any schema change is present.

When the synchronization process is well done, the Web Synchronizer Agent transmits its results to the MKB Agent and the VKB Agent in order to update respectively the MKB rules and the VKB web service view definitions, according to the new information space state.

The following MUML [7] activity diagram resumes the activities of the WeSee system agents and the interaction among them.
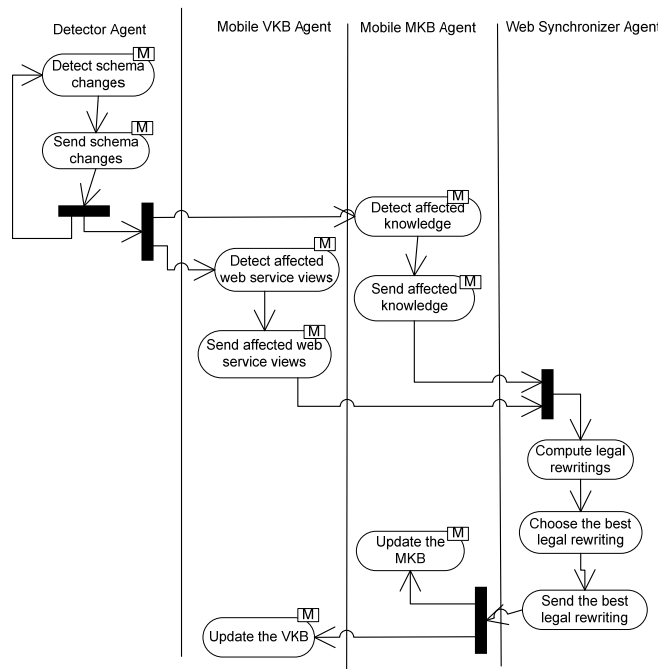
Figure 6. *Activity diagram*

4 Conclusions

In this paper, we presented the WeSee approach as a solution to partially automate the web service synchronization caused by information sources schema changes. The WeSee is based on mobile agent concepts in order to fit with dynamic environments characterized by a huge mass of information, on M-UML language to model the interaction between the WeSee mobile agents and inspired from EVE project which is the first work dealing with the view synchronization after information sources schema changes.

Our ongoing work consists on searching a solution to totally synchronize unavailable web services instead of only displaying their unavailability using business protocol concepts.

References

[1]   Andrew P. Ciganek, Marc N. Haines and William (Dave) Haseman, *Horizontal and Vertical Factors Influencing the Adoption of Web Services*, Proceedings of the 39th Hawaii International Conference on System Sciences – 2006.

[2]   A. J. Lee, A. Nica, and E. A. Rundensteiner, *Keeping Virtual Information Resources up and Running*, In Proceedings of IBM Centre for Advanced Studies Conference CASCON 97, Best paper Award, pages 1-14, November 1997.

[3]   B. Benatallah, Q. Z. Shewg and M. Dumas. *The Self-Serv Environment for Web Services Composition*, IEEE International Computing. 7 (1). January \ February. 2003.

[4]   B. Chaib-draa, I. Jarras and B. Moulin, *Systèmes multiagents : Principes généraux et applications, « Agent et systèmes multiagents»*, Hermès, 2001.

[5]   E. A. Rundensteiner, A. J. Lee and A. Nica, *The EVE Framework: View Evolution in an Evolving Environment*, Technical Report WPICS-TR-97-4, 1997.

[6]   Guy Bernard and Leila Ismail. *Apport des agents mobiles à l'exécution répartie*, Technique et science informatiques RSTI série TSI, Volume 21- n° 6/2002 pages 771 à 796.

[7]   Kassem Saleh and Christo El-Morr, *M-UML: an extension to UML for modeling of mobile agent- based software systems*, Information and Software technology: Volume 46, Number 4, 219-227, 15 March 2004.

[8]   M. Papazoglou and D. Georgakopoulos, *Special Issue on Service-Oriented Computing.* Communications of the ACM, 46(10), October 2003.

[9]   M. Younas and K. M. Chao, *A Tentative Commit Protocol for Composite Web Services.* Journal of Computer and System Sciences. July 2005.

[10] Oliver Prokein And Titus Faupel, *Using Web Services for Intercompany Cooperation – An Empirical Study within the German Industry*, Proceedings of the 39th Hawaii International Conference on System Sciences – 2006.

Community Contribution

New Journals / Update on Special Issues
Book Series / Books Released /
Books Recommendations

JOURNALS FEATURED IN THIS SECTION

- *International Journal of Technology Enhanced Learning(IJTEL) - **http://www.inderscience.com/ijtel/***
- *International Journal of Teaching and Case Studies* (IJTCS) - *http://www.inderscience.com/ijtcs/*
- *International Journal on Social and Humanistic Computing* *http://www.inderscience.com/ijshc*
- *International Journal on Digital Culture and Electronic Tourism* http://www.inderscience.com/ijdcet
- *International Journal of Electronic Democracy* http://www.inderscience.com/ijed
- *International Journal of Electronic Banking **http://www.inderscience.com/ijebank***
- *International Journal of Electronic Trade* http://www.inderscience.com/ijetrade
- *International Journal of Entertainment Technology and Management*, http://www.inderscience.com/ijenttm
- *International Journal of Ocean Systems Management* http://www.inderscience.com/ijosm
- **International Journal of Arab Culture, Management and Sustainable Development, http://www.inderscience.com/ijacmsd**

AND OUR EXCELLENT ESTABLISHED JOURNALS:

International Journal on Semantic Web and Information Systems, *http://www.idea-group.com/journals/details.asp?id=4625*

International Journal of Knowledge and Learning (IJKL) - *http://www.inderscience.com/ijkl/*

International Journal of Technology Enhanced Learning (IJTEL

http://www.inderscience.com/ijtel/
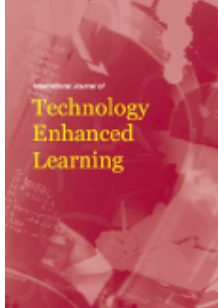
ISSN (Online): 1753-5263 - ISSN (Print): 1753-5255

Published in 4 issues per year (View Subscription Price)

Call for Papers

- Special Issue on: "Technology Enhanced Learning in FP5-FP6 and FP7 Programmes of the European Union: A European Citizen/Learner Perspective – Real World Learning Services – Missing Opportunities – Great Challenges"

- Special Issue on: "Technology Enhanced Learning for People with Disabilities: Visions, Strategies, Applications, and Policies"

- Special Issue on: "Web 2.0 for Technology Enhanced Learning Social Dynamics and Social Engineering for Learning - a New Era for Learning Content Creation and Exploitation"

IJTEL **fosters multidisciplinary discussion and research on technology enhanced learning (TEL) approaches at the individual, organisational, national and global levels. Its key objective is to be the leading scholarly scientific journal for all those interested in, researching and contributing to the technology enhanced learning episteme. For this reason,** *IJTEL* **delivers research articles, position papers, surveys and case studies aiming:**

- **To provide a holistic and multidisciplinary discussion on technology enhanced learning research issues**
- **To promote the international collaboration and exchange of ideas and know how on technology enhanced learning**
- **To investigate strategies on how technology enhanced learning can promote sustainable development**

⬤ Objectives

Technology enhanced learning is the best term to describe the domain of knowledge society technologies as applied in the learning context. "Learning for anyone, at any time, at any place" is the motto. With the shift

towards the knowledge society, the change of working conditions and the high-speed evolution of information and communication technologies, peoples' knowledge and skills need continuous updating. Learning, based on collaborative working, creativity, multidisciplinary, adaptiveness, intercultural communication and problem solving, has taken on an important role in everyday life. The learning process is becoming pervasive, both for individuals and organisations, in formal education, in the professional context and as part of leisure activities. Learning should be accessible to every citizen, independent of age, education, social status and tailored to his/her individual needs. To meet these social challenges is a leading issue of research on the use of technology to support learning (e.g. The Technology Enhanced Learning Action within the 7th Framework Program for Research and Technological Development).

In the context of the knowledge society, the focus of research in this area has been set on applications of technologies for user-centered learning, building on the concept of human learning and on sound pedagogical principles, with the key objectives to be:

- To increase the efficiency of learning for individuals, groups
- To facilitate transfer and sharing of knowledge in organisations
- To contribute to a deeper understanding of the learning process by exploring links between human learning, cognition and technologies
- To promote humanistic visions for a better world based on open learning for all

Readership

IJTEL aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: academia, industry and government, which summarise the three pillars where a new scientific publication can play a significant role.

Contents

IJTEL publishes original research papers providing significant results, and also short communications about innovative ideas and news, announcements and reviews regarding the topics of the journal.

Subject Coverage

Subjects covered include, but are not limited to:

Technology Enhanced Learning: An Emerging Episteme

- The technology enhanced learning domain: philosophical routes, demonstration of various communities, success stories, lessons learned
- Technology enhanced learning key issues: effective strategies, learning models and theories
- Deployment of ICTs in education, policy issues of TEL, integration issues, extensibility, interoperability

Technology Enhanced Learning: The Theories

- Pedagogical theories and models of TEL
- Constructivist approaches to TEL
- Collaborative/context aware/personalised TEL approaches
- Communities of learners and TEL

Technology Enhanced Learning: The Technologies

- Web 2.0 and TEL
- Semantic web and TEL
- Adaptive and personalised hypermedia for TEL
- Metadata and content standards and TEL
- Free and open source software for TEL
- Ubiquitous and pervasive technologies for TEL
- Intelligent agents for TEL

- Learning management systems
- Emerging technologies
- Grid technologies for learning

Technology Enhanced Learning: The Practices

- TEL practices in different educational/learning contexts
- Surveys of TEL adoption in education
- Future of TEL

Technology Enhanced Learning: The Applications in Domains

- TEL tools/emerging technologies and new generation TEL
- Challenges for the future; specification of government policies for the promotion of TEL in education
- Roadmaps for the future

⬤ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the **Submission of Papers** web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in **Author Guidelines**) to **Dr. Miltiadis Lytras** or **Dr. Ambjörn Naeve**, below, with a copy to:

IEL Editorial Office

E-mail: ijtel@inderscience.com

Please include in your submission the title of the Journal

⬤ **Editors and Members of the Editorial Board**

SWEDEN
amb@nada.kth.se

Regional Editor Africa

Kuzvinetsa Peter Dzvimbo
Rector, African Virtual University
World Bank
1818 H Street, N. W.
Washington DC 20433
USA

Regional Editor Asia

Khaled S. Al-Sultan
Rector
King Fahd University of Petroleum & Minerals
KFUPM Box 5001
Dhahran 31261
SAUDI ARABIA

Regional Editor Europe

Peter Scott
Head, Centre for New Media
The Open University
Knowledge Media Institute
Walton Hall
Milton Keynes MK7 6AA
UK

Regional Editor America

David Jonassen
University of Missouri
School of Information Science and Learning Technologies and Program in Educational
Psychology
221C Townsend Hall
Columbia MO 65211
USA

Regional Editor Oceania

Bill Martin
Director of Research Programs
RMIT University
School of Business Information Technology
GPO Box 2476 V
Melbourne VIC 3001
AUSTRALIA

Regional Editor Oceania

Gustaf Neumann
Chair of Information Systems and New Media; Head
Vienna University of Economics and Business Administration
Department of Information Systems
A-1090 Vienna
AUSTRIA

<u>**Associate_Editor Europe**</u>

Peter Twining
Senior Lecturer
Open University
Faculty of Education & Language Studies
Walton Hall
Milton Keynes MK7 6AA
UK

<u>**Associate_Editor Europe**</u>

Ralf Klamma
RWTH Aachen University
Informatik 5
Ahornstr. 55
D-52056 Aachen
GERMANY

<u>**Associate_Editor Europe**</u>

Kia C. Ng
University of Leeds
Interdisciplinary Centre for Scientific Research in Music (ICSRiM)
School of Computing and School of Music
Leeds LS2 9JT
UK

<u>**Associate_Editor Europe**</u>

Gottfried Vossen
European Research Centre for Information Systems
University of Muenster
School of Business Administration and Economics
Department of Information Systems
Leonardo-Campus 3 (Steinfurter Str. 109)
D-48149 Muenster
GERMANY

International Journal of Teaching and Case Studies (IJTCS)
http://www.inderscience.com/ijtcs/
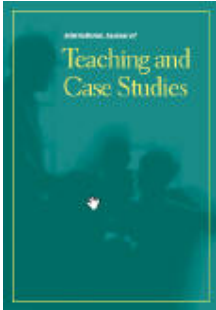
ISSN (Online): 1749-916X - ISSN (Print): 1749-9151

Published in 4 issues per year (View Subscription Price)

IJTCS **aims at becoming an authoritative source in teaching and learning within management, computing and information technology in a broad sense, which is of interest to educators, researchers, policy-makers and practitioners alike. The unique value proposition of** *IJTCS* **is the linkage of computing and information technology to management and business. Towards this aim,** *IJTCS* **delivers excellent articles on new methods, models and practices of teaching in the era of knowledge society, as well as (teaching) cases aimed at supporting learning in academia and business settings.**

IJTCS **covers the disciplines of management, management science, computer engineering, computer science, information systems, information technology and software engineering. It also considers any interdisciplinary account of information technology from a management perspective, such as, for example, medical informatics education or teaching technological issues for library science. Papers related to curricula, knowledge bodies, certification and professional issues in management and computing are also welcomed, as they reflect an additional stage of the education process as part of life-long learning.**

⬢ Objectives

IJTCS aims at publishing high quality research papers, reflective studies, case studies and "lessons learned" notes on any aspect of teaching and learning in computing and information technology-related disciplines.

The ACM/AIS/IEEE-CS Joint Task Force on Computing Curricula has recognised the wide variety of disciplines related to computing in its 2005 Overview Volume (Draft dated September 30, 2005). The different programs represent a number of computing disciplines. In this journal, we focus on five that are prominent today: computer engineering, computer science, information systems, information technology, and software engineering. Each of these areas is a focus of interest for IJCTS, and such diversity is reflected in the structure of *Associate Editors* specialising in different areas.

Papers may present work of different kinds, from classroom-based empirical studies through comparisons of pedagogic approaches across institutions or countries and of different types from the practical to the theoretical. Case studies that provide insight on proven strategies or teaching patterns are also welcomed. In addition, papers related to curriculum, knowledge bodies, certification and professional issues are also welcomed, as they reflect an additional stage of the education process as part of life-long learning.

This general statement outlines the ultimate objective but towards this direction a number of other goals and objectives may be stressed:

- Advancing a clear demarcation of the different disciplines that can be named as "computing and information technology", building on relevant recommendations and proposed curricula
- Serving as a catalogue for educators at all levels who are seeking learning resources, methods or past experiences.
- Advancing legal and certification issues as related to life-long learning and training in any aspect of computing
- Discussing the composition and structure of the different "bodies of knowledge" that conform to the computing and information technology disciplines

⬡ **Readership**

IJTCS aims to inform and provide guidance to educators at all levels on all aspects of computing and information technology.

⬡ **Contents**

IJTCS publishes original research papers providing significant results, and also communications innovative ideas and news, announcements and reviews regarding the topics of the journal.

⬡ **Subject Coverage**

Subjects covered include, but are not limited to:

- Teaching, learning and education in any aspect of decision making
- Teaching, learning and education in any aspect of management
- Teaching, learning and education in any aspect of management science
- Teaching, learning and education in any aspect of computer science
- Teaching, learning and education in any aspect of computer engineering
- Teaching, learning and education in any aspect of information systems
- Teaching, learning and education in any aspect of information technology
- Teaching, learning and education in any aspect of software engineering
- Curricula structure, planning and bodies of knowledge for any of the above disciplines

⬡ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the **Submission of Papers** web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in **Author Guidelines**) to **Dr. Miltiadis Lytras**, below, with copies to:

Managing Editor **Martin P. Papadatos**

and

IEL   Editorial   Office

E-mail: ijtcs@inderscience.com

Please include in your submission the title of the Journal

⬡ **Editors and Members of the Editorial Board**

B.P. 95105
Cergy Pontoise Cedex
FRANCE
avison@essec.fr

Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and
Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

Box 602000
Buffalo, NY 14260
USA

Patricia Ordóñez de Pablos
Universidad de Oviedo
Departmento de Administracion de Empresas y Conability
Facultad de Ciencias Economicas
Avd del Cristo
s/n 33071 Oviedo-Asturias
SPAIN

International Journal on Social and Humanistic Computing

http://www.inderscience.com/ijshc
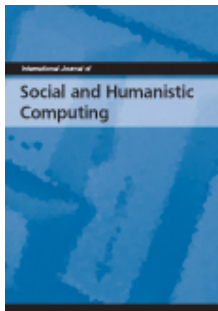
ISSN (Online): 1752-6132 - ISSN (Print): 1752-6124

Published in 4 issues per year (View Subscription Price)

Call for Papers

Special Issue on: "Anti-Poverty: Information Technology for Social and Human Networks Against Poverty"

Special Issue on: "Information Technology for People with Disabilities: Expanding Human Frontiers"

Special Issue on: "Open" Prisons: Learning/Working/Educating/ Inspiring/Involving - Inclusion for People in Prisons

Special Issue on: "The School of the Future: New World, New School - Knowledge Society to its Best"

IJSHC aims at leading multidisciplinary research and practice on the critical themes of the human and society. With the main emphasis placed on the demonstration of innovations and new approaches to the deployment of information and communication for human-centric and society-sensitive systems, *IJSHC* actively promotes a dialogue for developing a better world.

IJSHC investigates computing approaches to humanity's and society's agendas, and provides a publication outlet for a new emerging discipline which stands in the converging domains of high tech technologies,

intelligent systems and human-sensitive, context-aware experiences. In this journal, *Social and Humanistic Computing* **stands for an** *holistic approach to human/social-centric design of pervasive, ubiquitous systems, providing and supporting a new era of human/social experience that goes beyond the traditional perceptions of the interaction of humans with IT and IS. Indeed, IJSHC exploits social and humanistic research for the provision of high-tech services and human-centric systems.*

⬡ **Objectives**

The statement above provides the key differentiation of our journal from others and its unique value proposition. *IJSHC* diffuses knowledge in horizontal and vertical pillars

- On the one hand, we aim to investigate the social and humanistic computing issues in different contexts as illustrated by the human activities eg: living, science, health, culture, education, knowledge, learning, commerce, business, education, construction, etc.
- On the other hand we promote in horizontal lines the different views of social computing by supporting a scientific debate with the participation of the industry for the new kinds of human- and social-centric systems.

⬡ **Readership**

IJSHC aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: Academia, Industry and Government, which summarise the three pillars where a new scientific publication can play a significant role.

⬡ **Contents**

IJSHC publishes original research papers providing significant results, and also short communications about innovative ideas and news, announcements and reviews regarding the topics of the journal.

⬡ **Subject Coverage**

Topics include, but are not limited to:

- Human and social computing in living, science, health, culture, government, education, knowledge, learning, commerce, business, education, tourism
- Social networks research
- Social software
- Collaborative platforms
- Personalisation and adaptation
- Usability studies
- Context awareness
- Community computing/community informatics
- Social informatics
- Participatory/cooperative design
- Participatory action research (PAR) methods
- Policy development
- Privacy and security
- Ubiquity and pervasiveness
- Emotional intelligence
- Web 2.0
- Interaction design

⬡ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the <u>Submission of Papers</u> web-page.
You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in <u>Author Guidelines</u>) to **Prof. John M. Carroll**, **Dr. Miltiadis D. Lytras**, **Dr. Ambjörn Naeve**, **Prof. Walt Scacchi**, below, with a copy to:
IEL Editorial Office
E-mail: <u>ijshc@inderscience.com</u>
Please include in your submission the title of the Journal

⬡ **Editors and Members of the Editorial Board**

<u>**Editor(s) in Chief**</u>

John M. Carroll
Edward M. Frymoyer Chair in Information Sciences and Technology; Professor of Information Sciences and Technology, Computer Science and Engineering, Instructional Systems, and Psychology
The Pennsylvania State University
307H IST Building
University Park, PA 16802-6823
USA
jcarroll@ist.psu.edu

Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and
Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

Ambjörn Naeve
Head, Knowledge Management Research Group
Royal Institute of Technology
School of Computer Science and Communication
S-100 44 Stockholm
SWEDEN
amb@nada.kth.se

Walt Scacchi
University of California, Irvine
Institute for Software Research
Donald Bren School of Information and Computer Sciences
Irvine, CA 92697-3455
USA
wscacchi@ics.uci.edu

<u>**Associate Editors**</u>

Joseph Feller
University College Cork
Business Information Systems
O'Rahilly Building 2,119 College Road

Cork
IRELAND

Keiichi Nakata
International University in Germany
School of Information Technology
Campus 2
76646 Bruchsal
GERMANY

International Journal on Digital Culture and Electronic Tourism

http://www.inderscience.com/ijdcet
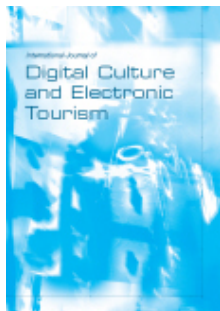
ISSN (Online): 1753-5220 - ISSN (Print): 1753-5212

Published in 4 issues per year (View Subscription Price)

Call for Papers

- Special Issue on: "Digital Libraries: From Alexandria to YouTube and Wikipedia – Embedding Social Dynamics"

- Special Issue on: "Digital Culture and Cultural Heritage: Archives, Museums and Art - New Technologies, New Channels, New Culture"

- Special Issue on: "National Tourism Organisations and Exploitation of Information Technologies - Tourism Portals in the Web 2.0 and Semantic Web Era"

- Special Issue on: "Digital Matter and Intangible Cultural Heritage"

IJDCET fosters multidisciplinary discussion and research on the adoption of information and communication technologies (ICT) in the contexts of culture and tourism. Its key objective is to be the leading scholarly scientific journal for all those interested in, researching and contributing to the cultivation of a regional and global vision for the management of cultural content and tourism.

For this reason, *IJDCET* delivers research articles, position papers, surveys and case studies aiming:

- **To provide a holistic and multidisciplinary discussion on how technology supports new unforeseen digital highways for the provision of cultural content and tourism services**
- **To promote the international collaboration and exchange of ideas and know how on digital culture and electronic tourism**
- **To investigate how emerging technologies and new managerial models and strategies can promote sustainable development for culture and tourism**
- **To promote the issues of digital culture and electronic tourism as key pillars of the knowledge society**

⬢ Objectives

In a turbulent world, culture and tourism provide two of the most fascinating aspects of human life. Creativity, imagination, brilliant colours, music, sounds, artifacts, spectacular places are becoming the required connectors for humanity. In a global perspective, the new capacities of emerging technologies, such as pervasive and ubiquitous computing, semantic knowledge portals, broadband and satellite networks, Web 2.0 and semantic web, open source software, set new tools, define new horizons for human creativity and connectivity.

In the digital world of the knowledge society, the development of infrastructures for the provision of services to citizens for access to cultural content and tourism services requires a multifold analysis of social, business, and technological factors. It seems that unfortunately there is a significant gap in the performance of current approaches and a key absence of scholar publications that will provide a fruitful dialogue.

In the context of the knowledge society, the key inquiry is to go beyond the traditional barriers for the open access to cultural content and the integration with learning and working. On the other hand, critical deficits in economic and social performance of tourism are evident due to the inefficiencies of current technological approaches that treat the tourism connection to information technology as a database problem. Our strategic fit is that culture and tourism require an integrated approach emphasising content, context and multiple, dynamic views of interactions.

The main objectives of *IJDCET* are summarised as follows:

- To provide the leading edge approaches and applications of ICTs in culture and tourism
- To provide the state-of-the art for government consultation and advice for academics/practitioners/policy makers and managers of the culture and tourism industry
- To contribute to the literacy of digital culture and electronic tourism

⬢ Readership

IJDCET aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: academia, industry and government, which summarise the three pillars where a new scientific publication can play a significant role.

⬢ Contents

IJDCET publishes original research papers providing significant results, and also short communications about innovative ideas and news, announcements and reviews regarding the topics of the journal.

⬢ Subject Coverage

Subjects covered include, but are not limited to:

Digital Culture and Electronic Tourism: The Research Domain

- The digital culture and electronic tourism domain: philosophical routes, demonstration of various communities, success stories, lessons learned
- Digital culture and e-tourism key issues: effective strategies, diffusion models and reference theories
- Deployment of ICTs in museums/cultural centres, policy issues, integration issues, extensibility, interoperability

Digital Culture and Electronic Tourism: The Theories

- Sociological/economic theories and models
- Content vs community manifestations
- Collaborative/context aware/personalised approaches

Digital Culture and Electronic Tourism: The Technologies

- Culture and tourism portals
- Push/pull technologies

- Web 2.0
- Semantic web
- Adaptive and personalised technologies
- Metadata and content standards
- Free and open source software
- Ubiquitous and pervasive technologies
- Intelligent agents
- Content/knowledge management systems
- Emerging technologies
- Grid technologies

Digital Culture and Electronic Tourism: The Practices

- Digital culture and electronic tourism practices in different educational/learning contexts
- Surveys of digital culture and electronic tourism adoption in education
- Future of digital culture and electronic tourism

Digital Culture and Electronic Tourism: The Applications in Domains

- Domain applications: museums, schools, labs, experimental approaches, educational/school portals
- Tools/emerging technologies and new generation applications
- Challenges for the future; specification of government policies for the promotion of digital culture and electronic tourism
- Roadmaps for the future

⬡ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the **Submission of Papers** web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in **Author Guidelines**) to **Dr. Miltiadis Lytras**, below, with a copy to:

IEL Editorial Office

E-mail: dcet@inderscience.com

Please include in your submission the title of the Journal

⬡ **Editors and Members of the Editorial Board**

Editor in Chief

Dr. Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and
Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

Associate Editors

Dr. Lily Diaz-Kommonen
Professor, Systems of Representation and Digital Cultural Heritage
University of Art and Design Helsinki

Media Lab
135C Hämeentie
SF 00560 Helsinki
FINLAND

Daniel R. Fesenmaier
Director, National Laboratory for Tourism & eCommerce
Temple University
School of Tourism and Hospitality Management
201 Vivacqua Hall
1700 N. Broad Street
Philadelphia, PA 19122
USA

Prof. Elena García-Barriocanal
Associate Professor
University of Alcalá
Computer Science Department
Ctra. Barcelona km 33.6
28871 - Alcalá de Henares (Madrid)
SPAIN

Takaharu Kameoka
Executive Vice-President (Information and International Affairs)
Mie Univeristy
1577 Kurimamachiya-cho
Tsu, Mie 514-8507
JAPAN

Prof. Patricia Ordóñez de Pablos
Universidad de Oviedo
Departmento de Administracion de Empresas y Conabilidad
Facultad de Ciencias Economicas
Avd del Cristo
s/n 33071 Oviedo-Asturias
SPAIN

Dr. Marianna Sigala
University of Aegean
Department of Business Administration
Mihalon 8
82100 Chios
GREECE

International Journal of Electronic Banking

http://www.inderscience.com/ijebank
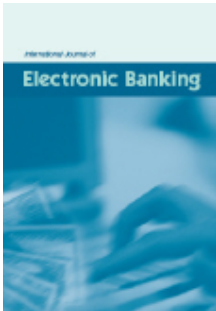
ISSN (Online): 1753-5247 - ISSN (Print): 1753-5239

Published in 4 issues per year (View Subscription Price)

Call for Papers

- Special Issue on: "Strategic Management of E-Banking: Business Strategies and Beyond – Alternative Channels and New Core Businesses"

- Special Issue on: "Advances in Knowledge Management for E-banking - Towards High Performance Banking Systems"

- Special Issue on: "Enterprise Resource Planning Systems in the Banking Industry - Reengineering of Process and Exploitation of Emerging Technologies"

IJEBank fosters multidisciplinary discussion and research on the emerging and fast growing topic of electronic banking. *IJEBank* is the first international attempt to provide a scientific publication outlet for the soft and hard topics of the e-banking research agenda. Given the extraordinary interest in the provision of customer and business oriented e-banking services, *IJEBank* concentrates on the proposition of sound theoretical models, methodologies and best practices aiming to provide consultation and promotion of the discipline.

For this reason, *IJEBank* delivers research articles, position papers, surveys and case studies aiming:

- **To provide a holistic and multidisciplinary discussion on how traditional and emerging technologies support new unforeseen means for the provision of e-banking services**
- **To promote the international collaboration and exchange of ideas and know how on e-banking practices, applications, methodologies and services**
- **To investigate new required competencies and training/education needs both for customers and banking officers/managers**
- **To analyse the linkages of e-banking with strategy and to craft managerial models for the alignment of business strategy and e-banking services**
- **To provide a balanced discussion of customer oriented themes (customer relationship management, e.g. customer training etc) and business themes (banking performance, measurement, control, enterprise application integration etc)**
- **To promote the humanistic vision of e-banking services and to consider new possibilities for the excluded people and people in need**
- **To foster collaboration for worldwide initiatives for the benefit of the "Third World"**

⬡ **Objectives**

The banking sector provides a key backbone towards sustainable development, investment, and finance. The explosion of the traditional perceived banking "products" or "services" nowadays has resulted in a critical reconsideration for the deployment of information and communication technologies in the banking industry. With an emphasis both on the internal capacities and infrastructures of modern banking organisations and on the external "outlook" of the customers and business, the *IJEBank* puts together complementary views of disciplines and promotes sound contribution to the theory and practice of e-banking.

This scholarly journal recognises the need to bring together *academia* and *industry* to explore all the synergies and exploit all the benefits of applied research to sound business problems. This is why we set as the ultimate objective of *IJEBank* to bridge the theoretical approaches commonly found in academic research with the real needs of the banking sector. *IJEBank* is not about electronic banking as a new verbalism. It is about e-banking as an applied domain with a great contribution to the knowledge society.

The main objectives of *IJEBank* are summarised as follows:

- To provide the leading edge approaches and applications of ICTs in banking sector
- To provide the state-of-the art/best practices/lessons learnt and cases studies aiming to develop a critical knowledge repository for all those interested in e-banking
- To contribute in the literacy of electronic banking
- To facilitate the sharing of ideas, know how as well as tacit and explicit knowledge in the e-banking
- To promote the knowledge and learning management dimension of e-banking

⬡ Readership

IJEBank aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: academia, industry and government, which summarise the three pillars where a new scientific publication can play a significant role.

⬡ Contents

IJEBank publishes original research papers providing significant results, and also short communications about innovative ideas and news, announcements and reviews regarding the topics of the journal.

⬡ Subject Coverage

Subjects covered include, but are not limited to:

Electronic Banking: Business Issues

- Outsourcing and process modelling
- Business process reengineering
- Customer relationship management
- Continuous improvement
- Training and education
- Security and control
- Business strategy alignment
- Social/business networking
- Knowledge management
- Financial performance
- Marketing and customer service/support
- IT government

Electronic Banking: The Technologies

- Front/back office
- E-banking portals
- Push/pull technologies
- Web 2.0 and e-banking applications
- Semantic web and e-banking applications

- Adaptive and personalised technologies
- Metadata and content standards
- Free and open source software
- Ubiquitous and pervasive technologies
- Intelligent agents
- Security
- Content/knowledge management systems
- Emerging technologies
- Grid technologies
- IT strategy

Electronic Banking: The Practices and the Applications in Domains

- E-banking practices in different countries/markets/segments/products/services
- Surveys of e-banking adoption
- Benchmarking/best practices/case studies at regional/national/global levels
- Domain applications
- Tools/emerging technologies and new generation applications
- Challenges for the future; specification of government policies for the promotion of electronic banking
- Roadmaps for the future

⬡ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the **Submission of Papers** web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in **Author Guidelines**) to **Dr. Miltiadis Lytras**, below, with a copy to:

IEL Editorial Office

E-mail: ijebank@inderscience.com

Please include in your submission the title of the Journal

⬡ **Editors and Members of the Editorial Board**

<u>Editor in Chief</u>

Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and
Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

<u>Associate Editors</u>

Peter Gomber
Professur für Betriebswirtschaftslehre, insbesondere e-Finance
Johann Wolfgang Goethe-Universität Frankfurt
Robert-Mayer-Str. 1
60054 Frankfurt
GERMANY

Campbell R. Harvey
Vice President
Duke University
Fuqua School of Business
Durham, NC 27708-0120
USA

Regional Editor America

Joseph C. Paradi
Executive Director and Professor
University of Toronto
Centre for Management of Technology and Entrepreneurship
200 College Street
Toronto, Ontario M5S 3E5
CANADA

Regional Editor Asia

Ziqi Liao
Hong Kong Baptist University
Department of Finance and Decision Sciences
Kowloon
HONG KONG (CHINA)

International Journal of Electronic Democracy

http://www.inderscience.com/ijed

ISSN (Online): 1742-4232 - ISSN (Print): 1742-4224

Published in 4 issues per year (View Subscription Price)

Call for Papers

- Special Issue on: "Democratic Internet - Foundations, Ideas, Approaches, and New Perspectives"

- Special Issue on: "Free/Libre and Open Source Software as a Foundation for E-Democracy"

- Special Issue on: "Participation in Democracy for All - the Society of Active Citizens, an E-Democracy Primer"

The *IJED* proposes and fosters discussion on the evolution and transformation of political systems by means of technology. However, the concept of e-democracy (also referred to as digital democracy or internet democracy) seems to offer a feasible path to further explore these questions as it is founded on the idea of streamlining political communications and altering aspects of political decision making in order to improve the effectiveness and efficiency of democracy.

⬣ Objectives

The objectives of *IJED* are to establish an effective channel of communication between policy makers, government agencies, academic and research institutions and persons concerned with the further evolution of democratic institutions. The international dimension is emphasised in order to successfully face the global challenges ahead in order to adapt current national democratic institutions. The gap between democratic ideals and democratic realities, already large, will grow even greater if democracies all around the globe fail to rise to these challenges.

⬣ Readership

IJED provides a vehicle to help policy makers, academics, researchers, and professionals working in the field of political management, public administration, political science, and information technology to disseminate information and to learn from each other's work.

⬣ Contents

IJED publishes original research papers and case studies from such fields as information systems, political science, systems theory, communication theory. Published research will be based on diverse methods and approaches as creative insight often occurs outside traditional research approaches and topic areas. Special Issues devoted to important topics in Electronic Democracy will occasionally be published.

⬣ Subject Coverage

- Challenges and foundations of e-Democracy
- Concepts and models of e-Democracy
- E-Democracy strategies and initiatives
- E-Democracy on the international, national, regional, and local level
- Drivers and barriers for e-Democracy
- Case studies and best (or worst) practice studies illustrating success or failure of e-Democracy
- Development and implementation issues of e-Democracy instruments (especially in the fields of e-Participation and e-Voting)

⬣ Specific Notes for Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the **Submission of Papers** web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in **Author Guidelines**) to **Harald Mahrer**, below, with an email copy only to:

IEL Editorial Office

E-mail: **ijed@inderscience.com**

Please include in your submission the title of the Journal

⬣ Editors and Members of the Editorial Board

Editor in Chief

Dr. Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and

Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

Associate Editor

Robert Krimmer
Department of Information Systems and Process Management
Vienna University of Economics and Business Administration
AUSTRIA

International Journal of Electronic Trade (IJETrade)
ISSN (Online): 1742-7533 - ISSN (Print): 1742-7525

http://www.inderscience.com/ijetrade
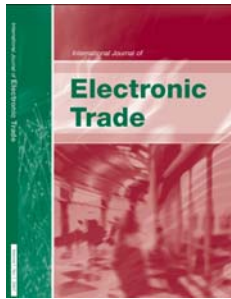
Published in 4 issues per year (View Subscription Price)

IJETrade **fosters multidisciplinary discussion and research on the new generation of electronic commerce and electronic trade for businesses, consumers, governments and society, in local and global contexts. It capitalises on the evolution of technologies and emerging managerial approaches and promotes the discipline in an era where the traditional agenda of electronic commerce has been refocused.**

The unique value proposition of *IJETrade* is based on an end-to-end discussion and analysis of technological, business, organisational, social, economic, psychological and managerial issues. *IJETrade* is a brand new publication outlet for a mature research community that nowadays builds bridges with other scientific communities, exploiting synergies and promoting sustainable development for our world.

Given the extraordinary interest in the provision of services for the support of a fast growing world trade in local and global contexts and for the design, implementation and management of e-commerce and e-trade services, *IJETrade* concentrates on the proposition of sound theoretical models, methodologies and best practices aiming to provide consultation and promotion of the discipline.

⬡ **Objectives**

IJETrade delivers research articles, position papers, surveys and case studies aiming:

- To provide a holistic and multidisciplinary discussion on how traditional and emerging technologies support new unforeseen means for the provision of e-commerce and e-trade solutions
- To promote the international collaboration and exchange of ideas and know how on e-commerce and e-trade practices, applications, methodologies and services
- To analyse the linkages of e-trade and e-commerce with strategy and to craft managerial models for the alignment of business strategy and e-commerce
- To provide a balanced discussion of social, business, consumer and government themes
- To define new frontiers for the provision of e-commerce

⬡ **Readership**
IJETrade aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: academia, industry and government, which summarise the three pillars where a new scientific publication can play a significant role.

⬡ **Contents**
IJETrade publishes original research papers providing significant results, and also short communications about innovative ideas and news, announcements and reviews regarding the topics of the journal.

⬡ **Subject Coverage**
Submissions are invited that integrate subject areas which include, but are not limited to:

- *Electronic Trade/Electronic Commerce: Contexts*
  - Citizens
  - Consumers
  - Business
  - Government
  - Community
  - Global
- *Electronic Trade/Electronic Commerce: Business Issues*
  - Globalisation
  - Sustainable development
  - Business models
  - Marketplaces
  - Supply chain management
  - Logistics
  - Marketing
  - Strategic adoption frameworks
  - Communities/collective intelligence
  - Outsourcing and process modelling
  - Business process reengineering
  - Customer relationship management
  - Training and education
  - Security and control
  - Business strategy alignment
  - Social/business networking
  - Knowledge management
  - Learning
  - Financial performance
  - Marketing and customer service/support
  - IT government
  - Aesthetics
  - Emotional intelligence
- *Electronic Trade/Electronic Commerce: The Technologies*
  - Front/back office
  - Portals
  - Push/pull technologies
  - Web 2.0
  - Semantic web
  - Adaptive and personalised technologies
  - Metadata and content management
  - Free and open source software
  - Intelligent agents
  - Mobile/ubiquitous/pervasive technologies
  - Security
  - Payment systems
  - Grid technologies
  - IT strategy
  - Content/knowledge management systems
  - Emerging technologies
- *Electronic Trade/Electronic Commerce: Practices and Applications in Domains*
  - E-commerce/e-trade practices in different countries/markets/segments/products/services
  - Surveys of e-commerce adoption
  - Benchmarking/best practices/case studies at regional/national/global levels

- o Domain applications
- o Tools/emerging technologies and new generation applications
- o Challenges for the future; specification of government policies for the promotion of electronic trade/electronic commerce
- o Roadmaps for the future

⬠ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the Submission of Papers web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in Author Guidelines) to **Dr. Miltiadis Lytras**, below, with a copy to:

Managing Editor: Stavrina Sampati   and IEL Editorial Office
E-mail: ijetrade@inderscience.com

Please include in your submission the title of the Journal

⬠ **Editors and Members of the Editorial Board**

Editor(s) in Chief

Joze Gricar
Director, eCenter; Chair
University of Maribor
Department of Informatics
Kidriceva cesta 55a
SI-4000 Kranj
SLOVENIA
gricar@fov.uni-mb.si

Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and
Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

Ernesto Damiani
University of Milan
Department of Information Technology
Via Bramante 65
Milan
ITALY
Damiani@dti.unimi.it

Managing Editor(s)

Stavrina Sampati
University of Patras
Computer Engineering and Informatics Department
Patras
GREECE
Sampati@ceid.upatras.gr

International Journal of Entertainment Technology and Management (IJEntTM)
ISSN (Online): 1741-8046 - ISSN (Print): 1475-8954

http://www.inderscience.com/ijentm
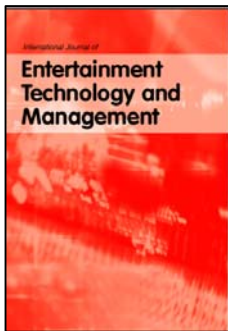
Published in 4 issues per year (View Subscription Price)

IJEntTM covers and disseminates the rapidly growing research and application domain of entertainment technology and management. In the context of the knowledge society, entertainment is a key pillar towards a new era of human experience and transcendence supported by new media.

Don Marinelli (2003) articulates it succinctly: *"The veritable explosion of social transformations brought about by computer-generated and computer- mediated digital entertainment was upon us before many in higher education realized the world had changed… Entertainment Computing recognizes interactivity as being the dominant transformation brought about by digital media".*

Within this context, *IJEntTM* **addresses an emerging discipline which stands in the converging domains of high tech and new media. In** *IJEntTM*, **entertainment management stands for the** *"holistic approach to interactivity as being the dominant transformation enhanced by digital media".*

⬠ **Objectives**

The statement above provides the key differentiation of the journal and its unique value proposition. *IJEntTM* aims to become the leading scholarly edition covering multiple areas and disciplines by developing and diffusing knowledge in horizontal and vertical pillars.

It investigates entertainment technology and management issues in different contexts; it promotes in horizontal lines the different views of entertainment management by structuring a scientific debate featuring the participation of new kinds of interactive media industries and researchers.

⬠ **Readership**

IJEntTM aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: academia, industry and society, which summarise the three pillars where a new scientific publication can play a significant role.

⬢ **Contents**

IJEntTM publishes original papers, review papers, technical reports, case studies, conference reports, management reports, book reviews, notes, commentaries, and news. Special Issues devoted to important topics will occasionally be published.

⬢ **Subject Coverage**

Subjects covered include, but are not limited to:

- Infotainment
- Edutainment
- Digital interactivity
- Gameplay design
- Mobile gaming
- Augmented reality
- Alternative reality gaming
- Transmedia storytelling
- Virtual reality
- Persistent worlds
- Ubiquitous computing
- Responsive environments
- Digital psychodrama and therapy
- Affective and haptic interfaces
- Tangible media
- 3D modelling
- Animation technology
- Constructionist learning technologies
- Therapeutic entertainment technologies
- Inspirational interfaces
- Sociable media
- Computational aesthetics
- Interactive animatronic robotics
- Remix design
- Viral and guerrilla marketing
- Social and cultural issues in media production
- Interactive TV

⬢ **Specific Notes for Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the **Submission of Papers** web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in **Author Guidelines**) to **Prof. Don Marinelli**, **Dr. Miltiadis Lytras** or **Dr. Hugo Liu**, below, with copies to:

Managing Editor, Efstathia-Maria Pitsa

and

IEL Editorial Office
E-mail: ijenttm@inderscience.com
⬢ **Editors and Members of the Editorial Board**

Editor(s) in Chief

Dr. Hugo Liu
MIT Program in Comparative Media Studies
Massachusetts Institute of Technology
The Media Laboratory
Building E15
77 Massachusetts Avenue
Cambridge, MA 02139-4307
USA
hugo@media.mit.edu

Dr. Miltiadis Lytras
University of Patras
Research Academic Computer Technology Institute and
Computer Engineering and Informatics Department
Patras
GREECE
lytras@ceid.upatras.gr

Prof. Don Marinelli
Professor of Drama and Arts Management; Co-Director
Carnegie Mellon University
Entertainment Technology Center
5000 Forbes Avenue
Pittsburgh, PA 15213-3891
USA
dm2l@andrew.cmu.edu

Managing Editor(s)

Efstathia-Maria Pitsa
Athens University of Economics and Business
Department of Management Science and Technology
76, Patission Str.
Athens 104 34
GREECE
efstathia_p@yahoo.gr

SPECIAL ISSUES

International Journal of Technology Enhanced Learning (IJTEL)

ISSN (Online): 1753-5263 - ISSN (Print): 1753-5255

URL: http://www.inderscience.com/ijtel

Technology Enhanced Learning in FP5-FP6 and FP7 Programmes of the European Union: A European Citizen/Learner Perspective – Real World Learning Services – Missing Opportunities – Great Challenges
http://www.inderscience.com/browse/callpaper.php?callID=653

International Journal of Technology Enhanced Learning (IJTEL)

Call For papers

Special Issue on: "Technology Enhanced Learning in FP5-FP6 and FP7 Programmes of the European Union: A European Citizen/Learner Perspective – Real World Learning Services – Missing Opportunities – Great Challenges"

Guest Editor:
Miltiadis Lytras, University of Patras, Greece

Research in Europe is a key pillar of a highly competitive European Union. It is a fact that billions of Euros are invested in innovative research projects in various domains the last decade. But as always there is a social concern: how fast the research outcomes reach the potential beneficiaries and how well designed and implemented the dissemination outcomes are that will transform leading edge research to high development rates and real services adopted by European citizens. In other words, at a basic level, there is a key question about demonstrating best practices and innovative services which are open and available to all European citizens.

This special issue emphasises on the research in technology enhanced learning at European level. With FP5 completed couple years ago and FP6 near to completion, it is timely to investigate, from a European learner perspective, the real outcomes as well as the challenges for the future.

The key reason for this special issue is this: in most of cases, people like to "undervalue" the significance of research contributions; e.g. the typical critique that is made about R&D projects at a European level relates to the day after the end of budgeted timeline. What happens with the deliverables, how many of the systems are commercialised or adopted in target markets, how many consortiums continue to offer their services after the end of projects?

But as always the reality is not black or white. Brilliant researchers, high capacity teams are working in TEL at European level and this special issue aims to honour their contribution in the vision for learning for anyone, at any time, at any place in Europe.

⬢ **Subject Coverage**

With the previous concerns in mind, this special issue is organised around four key pillars:

1. Investigation/survey of real world learning services offered from FP5 & FP6 projects - demonstration of innovation
2. Best practices in dissemination of scientific research outcomes in the context of TEL R&D projects
3. Commercialisation cases
4. Analysis of return on investments: integration of research outcomes in industry, etc

Topics include, but are not limited to, the following:

- Learning services at European level
- Learning objects portals
- Best practice in TEL
- Qualitative analysis of TEL cluster projects: A meta-analysis of deliverables and value offerings
- Performance gaps in TEL projects: proposal promises versus real, delivered systems
- Case studies, lessons learned
- Knowledge dissemination strategies
- European learners' perspectives
- Challenges for TEL in FP7

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

Important Dates

4-5 Pages Extended Abstract: *30 October 2007*
Notification to Authors: *15 November 2007*
Final Versions Due: *15 December 2007*

Editors and Notes

You may send one copy in the form of an MS Word file attached to an e-mail (details in **Author Guidelines**) to the following:

Dr. Miltiadis Lytras
Research Academic Computer Technology Institute and
Business Administration Department
University of Patras
Greece
Email: Lytras@ceid.upatras.gr

with a copy to:

Efstathia Pitsa
Email: efstathia_p@yahoo.gr

and

IEL Editorial Office
E-mail: ijtel@inderscience.com

Please include in your submission the title of the Special Issue, the title of the Journal and the name of the Guest Editor

NOTE: *All the authors of accepted papers will be invited in an international summit, with various think tanks promoting the humanistic vision of knowledge society.*

Technology Enhanced Learning for People with Disabilities: Visions, Strategies, Applications, and Policies
http://www.inderscience.com/browse/callpaper.php?callID=654

Call For papers

Special Issue on: "Technology Enhanced Learning for People with Disabilities: Visions, Strategies, Applications, and Policies"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
Patricia Ordóñez De Pablos, The University of Oviedo, Spain
Miguel Angel Sicilia, University of Alcala, Spain
Roger Lee Boston, Houston Community College System, USA
Paul G. Mezey, Memorial University of Newfoundland, Canada

One of the most interesting application domains of technology enhanced learning (TEL) is related to the adoption of learning technologies and designs for people with disabilities. It is clear that while a lot of effort has been paid to this context, there is considerable room for new, creative and "human" centric approaches.

The special issue is organised around four key pillars:

1. Analysis of various types of disabilities [e.g. learning, mental, cognitive, kinetic, etc] and discussion of TEL support in each different context
2. Demonstration of innovations in the adoption of TEL for people with disabilities: cases studies, pilot projects, best practices, emerging technologies
3. Discussion of work/skills/competencies/deployment issues - linkage of TEL and tele-working
4. Sound propositions on government policies, regulations and community programmes

Subject Coverage
Topics include, but are not limited to, the following:

- Technology enhanced learning applications/approaches/strategies for people with disabilities
- Analysis of disability contexts and reflective learning strategies as well as TEL adoption strategies
- Demonstration of innovations in the adoption of TEL for people with disabilities
- Cases studies, pilot projects, best practices, emerging technologies
- Discussion of work/skills/competencies/deployment issues
- Linkage of TEL and tele-working for people with disabilities
- Government policies
- Regulations
- Community programmes

Notes for Intending Authors
Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

Important Dates
4-5 Pages Extended Abstract: *30 April 2007*
Notification to Authors: *15 July 2007*
Final Versions Due: *30 September 2007*

Web 2.0 for Technology Enhanced Learning Social Dynamics and Social Engineering for Learning - a New Era for Learning Content Creation and Exploitation
http://www.inderscience.com/browse/callpaper.php?callID=655

Call For papers

Special Issue on: "Web 2.0 for Technology Enhanced Learning Social Dynamics and Social Engineering for Learning - a New Era for Learning Content Creation and Exploitation"

*Guest Editors***:**
Miltiadis Lytras, University of Patras, Greece
Ambjörn Naeve, Royal Institute of Technology, Sweden
Gottfried Vossen, University of Münster, Germany
Peter Scott, The Open University, UK
Patricia Ordóñez De Pablos, The University of Oviedo, Spain
Ralf Klamma, RWTH Aachen University, Germany

One of the most significant deficits in technology enhanced learning (TEL) or e-learning approaches has always been the capacity of systems to provide means of knowledge creation and renewal of learning content through the exploitation of social interactions and learning experiences. In a way, it seems that e-learning was incapable of exploiting and capitalising on the "knowledge and learning assets" generated in the context of the unique e-learning experience. The contribution on learning objects metadata, learning designs and adaptive hypermedia as well as semantic web in this really problematic area is significant.

However, nowadays the scientific field of TEL or advanced learning technologies has true momentum: Web 2.0 sets new milestones for the exploitation of collective intelligence, social engineering and social networks and especially for TEL.

In this special issue, we explore the potential of Web 2.0 and the synergies of Web 2.0 and Semantic Web for TEL and we provide the state of the art in theoretical foundations and technological applications. We also differentiate within the development process. We apply the collaborative community enhancement model.

The issue will also host two interviews with academics and practitioners who have produced seminal work on Web 2.0/social and learning networks.

 Subject Coverage

Topics include, but are not limited to, the following:

- Web 2.0 for Learning: theoretical foundations, practices, technologies, strategies
- Design variables and conditions for social networks
- New forms of interaction in social systems
- Blogging as a social activity and approaches to semantic blogs
- Collaborative filtering in social settings
- Analysing social interaction for finding knowledge on Web users
- Semantic desktops
- Social network analysis enabled by the semantic web
- Learning and knowledge communities
- Analysis of large online communities web communities of practice

- Network analysis for building social networks
- Implicit, formal, and powerful semantics in communities
- Semantic social networks metadata and annotation techniques
- Metadata schema describing individuals and social ties
- Folksonomies, tagging and other collaboration-based categorisation systems
- Wikis, semantic Wikis and other collaborative knowledge creation systems
- Online social networking
- Applications of online semantic networks
- Knowledge management with semantic networks
- Emerging human experiences in social networks
- Analysis of human behaviour in semantic social networks

⬣ Notes for Intending Authors
Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

⬣ Important Dates
4-5 Pages Extended Abstract: *30 April 2007*
Notification to Authors: *15 July 2007*
Final Versions Due: *30 September 2007*

International Journal of Social and Humanistic Computing

ISSN (Online): 1752-6132 - ISSN (Print): 1752-6124

URL: http://www.inderscience.com/ijshc

Anti-Poverty: Information Technology for Social and Human Networks Against Poverty

http://www.inderscience.com/browse/callpaper.php?callID=631

Special Issue on: "Anti-Poverty: Information Technology for Social and Human Networks Against Poverty"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece.
Kuzvinetsa Peter Dzvimbo, African Virtual University, World Bank, USA
Patricia Ordonez De Pablos, University of Oviedo, Spain
Keiichi Nakata, International University in Germany, Germany

Our civilized world very often seems to close its eyes to real problems. It is not just a question of postponing actions in the future, but also a demonstration of poor reflective mechanisms. On the other hand, a vast humanistic network against poverty, consisting of volunteers, inspired minds and organisations with social responsibility, has an excellent performance. Worldwide action focuses on aspects of poverty, analyses various underlying factors and recommends actions while focusing its full capacities on anti-poverty visions.

This special issue promotes the role of the IT as a key enabler of anti-poverty actions. The following are the four pillars of the editing strategy:

1. Discussion of the key agenda of poverty in our civilized world
2. Discussion of the key reflective actions for anti-poverty, including policies, government regulations, community programmes, efficient management of resources, involvement, etc
3. Discussion of the role of information technology as key enabler of anti-poverty initiatives worldwide.
4. Sound Propositions for things we must do.

The special issue aims at helping communication and dissemination of the vision of a better world based on education. The issue is intended to initiate a dialogue between the governments and the research community based on a well-defined context. This special issue aims to cover the international perspective, i.e. not only discussions on approaches in advanced economies but also in Africa, and other regions of world where poverty eliminates the access to education and schools.

⬥ **Subject Coverage**

Topics include, but are not limited to, the following:

- Education against poverty and programmes of poverty reduction through human development
- Modern technologies for employment creation and poverty reduction
- Facilitating access for poor populations to literacy programmes, basic education and vocational training
- Smart community projects
- Agro-food production activities and IT

- Management of resources against poverty
- International IT-enabled networks of support against poverty
- Tele-working
- Focus surveys
- Human and social networks
- Prototypes and development of information systems focused on poverty reduction
- Non-governmental organisations' strategic plans and actions
- Requirements analysis for information technology infrastructures in rural areas, required for poverty reduction
- Policies and strategies against poverty through ICTs
- Interfaces between the information needs of the poor and ICT capabilities
- ICT infrastructures for the delivery of basic services including education and health for the poor in the networked economy
- Analysis of social impact of community programmes
- ICT training for the rural poor - information skills development strategies for poor youth to ensure that tomorrow's poor can compete effectively in an integrated market
- Women's access to ICT-enabled help, promoting their participation in democracy, governance, and fight against poverty

● Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere

All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

● Important Dates

1-2 Page Abstract: *15 September 2007*
Submission of manuscripts: *15 October 2007*
Notification to authors: *15 November 2007*
Final versions due: *15 February 2008*

Information Technology for People with Disabilities: Expanding Human Frontiers

http://www.inderscience.com/browse/callpaper.php?callID=632

Call For papers

Special Issue on: "Information Technology for People with Disabilities: Expanding Human Frontiers"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
John M. Carroll, Pennsylvania State University, USA
Ambjörn Naeve, Royal Institute of Technology, Sweden
Patricia Ordonez De Pablos, University of Oviedo, Spain

The rationale of this special issue is strongly grounded in the societal needs for a world with special care for people with disabilities. While disability has many definitions, in our approach it is treated as a special characteristic, a special competence that just requires a special treatment.

Given the significant societal value of this special issue, we invite researchers, policy makers, academics, and practitioners to contribute to the dialogue on how we can support new frontiers for people with disabilities. We are aiming to promote sound propositions and applied approaches towards better conditions for living, working, learning and inclusion of people with disabilities/people with special competencies in our society.

The evolution in research and applied technologies towards the support of people with disabilities in the past few last years has been considerable. New technologies, fresh ideas and significant development in hardware, software and advanced communications, bring together researchers from various domains.

Given the significance of the special issue theme, three significant objectives formulate the justification of the special issue:

1. The need to investigate the "soft" and "hard" aspects of strategies that contribute to the humanistic vision of living, learning, working, entertaining conditions for people with disabilities.
2. The need to provide a sustainable worldwide knowledge society vision based on collaboration, knowledge and learning for all and especially for people with disabilities.
3. The need to anchor government policies in scientific evidence and community debate for key societal issues.
4. The need to investigate the key priorities of an action plan for the adoption of information technology for people with disabilities.

The special issue aims at helping in communicating and disseminating the vision of a better world for people with disabilities through specific priorities and actions for government and/or NGO policies. The issue is intended to initiate a dialogue between the government and the research community based on a well-defined context.

⬤ **Subject Coverage**

Topics include, but are not limited to, the following:

- The role of technology in ensuring full participation
- Accessibility
- Assistive technology
- Assistive technology and augmentative communication

- Assistive technology and the individualised education plan (IEP)
- Information technology for improving living, learning, working, entertaining conditions of disabled people
- Information technology for improved health conditions
- Policies and strategies for IT adoption and assistive technology
- Assistive technology for the frail and elderly
- Assistive technology with cognitive disabilities emphasis
- Assistive media
- Internet and people with disabilities
- Web 2.0 and new opportunities for inclusion
- Technology enhanced learning and e-learning systems for people with disabilities
- Networks of support for disabled people
- Universal design and human computer interaction approaches for disabled people
- Information technology for inclusion
- Social and human networks

 Notes for Intending Authors
Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page
 Important Dates
1-2 Page Abstract: *30 March 2007*
Submission of manuscripts: *15 May 2007*
Notification to authors: *15 June 2007*
Final versions due: *15 July 2007*

**"Open" Prisons: Learning/Working/Educating/ Inspiring/Involving -
Inclusion for People in Prisons**

http://www.inderscience.com/browse/callpaper.php?callID=633

Special Issue on: "Open" Prisons: Learning/Working/Educating/ Inspiring/Involving - Inclusion for People in Prisons

Guest Editor: **Miltiadis Lytras, University of Patras, Greece**

The International Journal of Social and Humanistic Computing has a clear editing strategy: to bring light in to areas where research and applied technologies meet key social needs. Social and humanistic computing can have a significant contribution in the discourse for the "correction" strategies in prisons. In many cases, prisons are considered as anathema, dark places without light in the end of the tunnel. But this should not be the case.

This special issue promotes the role of the information technologies as a key enabler of actions that bring light into prisons, providing channels for the creativity of prisoners and setting challenges for their behaviour and motivation to be part of the society.

The following are the four pillars of the editing strategy:

1. Discussion of the big agenda of "open" prisons.
2. Discussion of the key reflective actions on learning/working/educating/inspiring/involving - inclusion for people in prisons including policies, government regulations, research programs, pilot programs, social involvement, etc
3. Discussion of the role of information technology as key enabler of "open" prisons initiatives worldwide.
4. Sound propositions for things we must do.

The "Open" Prisons special issue aims at helping in communicating and disseminating the vision of a better world. The issue is intended to initiate a dialogue between the government and the research community based on a well-defined context.

⬤ **Subject Coverage**

Topics include, but are not limited to, the following:

* Education programmes in prisons and programs of human development
* Requirements analysis for information technology infrastructures in prisons towards inclusion
* Modern technologies for employment creation in prisons
* Prototypes and development of information systems focused at Learning/working/educating/ inspiring/involving
* Facilitating access to literacy programmes, basic education and vocational training
* Tele-working
* Policies and strategies
* ICT training for the prisoners - information skills development strategies
* Special actions for women in prisons

⬤ **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere

All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

⬣ **Important Dates**
1-2 Page Abstract: *15 May 2007*
Submission of manuscripts: *30 September 2007*
Notification to authors: *30 October 2007*
Final versions due: *15 December 2007*

The School of the Future: New World, New School - Knowledge Society to its Best
http://www.inderscience.com/browse/callpaper.php?callID=634

Special Issue on: "The School of the Future: New World, New School - Knowledge Society to its Best"

*Guest Editors***:**
Miltiadis Lytras, University of Patras, Greece
Patricia Ordonez De Pablos, University of Oviedo, Spain

Many people claim that education at school level suffers from inefficiency in responding to a fast changing world. Obsolete knowledge, rigid practices and formal models have a significant impact on creativity, knowledge exploration, and young people's development.

Various initiatives worldwide concentrate on the reformation of education at the school level and various disciplines contribute with interesting ideas and propositions. The role of the teacher, family, government and technology are analysed extensively and various prestigious associations and government offices deliver white articles, position documents and policies.

Our special issue wants to deliver a scholarly edition of excellent quality summarizing the thoughts, ideas and suggestions of key academics and organizations for the school of the future. Such a goal requires the specification of the big agenda and a list of priorities for the school of tomorrow.

This special issue promotes the role of the IT as a key enabler of the school paradigm in the knowledge society. The following are the four pillars of the editing strategy:

1. Discussion of the big agenda of issues that require an integrated approach for the realisation of the school in the knowledge society.
2. Discussion of the emerging pedagogy that responds to the various needs of the knowledge society and delivers a unique value proposition of the modern school.
3. Discussion of the emerging technologies that promote new ways for exploiting IS for well defined priorities and objectives of the knowledge society
4. Contribution to the triptych: society objectives/needs, schools services/paradigms, IT support.

The special issue aims at helping in communicating and disseminating the vision of a better world based on education. The issue is intended to initiate a dialog between the government and the research community based on a well-defined context. The School of the Future special issue aims to cover the international perspective: not only discussion for approaches in advanced economies but also in Africa and regions of world where poverty eliminates the access to education and schools.

⬣ **Subject Coverage**
Topics include, but are not limited to, the following:
Section A. The School of the Knowledge Society

- The vision

- Critical Success factors [e.g. agenda of Microsoft and the School District of Philadelphia initiative: http://www.microsoft.com/Education/SchoolofFutureVision.mspx
- School of the Future debate from leading Organisations such as the World Bank, UNESCO, European Union, etc)

Section B. The Big Agenda of Open Issues

- Key variables,
- Performance metrics
- Technology
- Human Development
- Finance
- Teachers and Society Role

Section C. The Key Propositions

- An involved and connected learning community
- A proficient and inviting curriculum-driven setting
- A flexible and sustainable learning environment
- A cross-curriculum integration of research and development
- Professional leadership

Section D. Cases/ Demonstration of worldwide activities
 ⬥ **Notes for Intending Authors**
Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page
 ⬥ **Important Dates**
1-2 Page Abstract: *30 April 2007*
Submission of manuscripts: *15 June 2007*
Notification to authors: *15 July 2007*
Final versions due: *15 September 2007*

International Journal of Digital Culture and Electronic Tourism (IJDCET)

ISSN (Online): 1753-5220 - ISSN (Print): 1753-5212

URL: http://www.inderscience.com/ijdcet

Digital Libraries: From Alexandria to YouTube and Wikipedia – Embedding Social Dynamics"

http://www.inderscience.com/browse/callpaper.php?callID=637

Call For papers

Special Issue on: "Digital Libraries: From Alexandria to YouTube and Wikipedia – Embedding Social Dynamics"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
Ernesto Damiani, University of Milan, Italy
Patricia Ordóñez De Pablos, University of Oviedo, Spain
Miguel Angel Sicilia, University of Alcala, Spain

In the context of libraries, various emerging technologies such as Semantic Web and Web 2.0 can be viewed as an extension of existing metadata-intensive approaches to the concept of the "digital library". Such an extension should be appreciated in two dimensions:

- On the one hand, the Semantic Web builds on a common logics-based framework adapted to the Web, which eases technology adoption while preserving a strong commitment to a formal foundation for metadata
- At the same time, the sharing of ontologies as public Web resources offers new opportunities for interoperability across institutional repositories (libraries, cultural heritage institutions and the like) and personal or organisational records.

In addition, the representation of information resources can be easily linked to metadata describing personal or group preferences, objectives or links, and even to personal relationships, as described by the Friend-of-a-Friend (FOAF) framework.
These specific characteristics of the Semantic Web and Web 2.0 approach conform to a paradigm for building library systems that go a step beyond the existing technological infrastructure.
Currently in the context of FP7 of European Commission's ICTs Program, http://cordis.europa.eu/fp7/ict/, the Challenge 4, of Digital Libraries and Content sets, specific priorities:
"…In today's society individuals and organisations are confronted with an ever-growing load and diversity of information and content, and with increasing demands for knowledge and skills. Coping with these demands requires progress in three closely related domains.

- *First, content should be made available through digital libraries and its long-term preservation, accessibility and usability must be ensured.*
- *Second, we need more effective technologies for intelligent content creation and management, and for supporting the capture of knowledge and its sharing and reuse.*
- *Third, individuals and organisations have to find new ways to acquire, contribute and exploit knowledge, and thereby learn. The challenge, therefore, is to harness the synergies made possible by linking content, knowledge*

> *and learning; to make content and knowledge abundant, accessible, interactive and usable over time by humans and machines alike.*

This should take into account current trends in content production and consumption and particularly the move from few-to-many to many-to- many models. Europe, with its unique cultural heritage and creative potential, is well placed to take advantage of this paradigm shift and to be a key actor in the knowledge economy. The research is expected to firmly establish digital libraries services as a key component of digital content infrastructures, allowing content and knowledge to be produced, stored, managed, personalised, transmitted, preserved and used reliably, efficiently, at low cost and according to widely accepted standards. The support of more personalised and collaborative services, particularly within self-organising communities, will lead to more creative approaches to content and knowledge production. Improvements are also expected in terms of the usability, accessibility, scalability and cost-effectiveness of the resulting methods, technologies and applications with respect to large amounts of data and concurrent users]…"

⬤ **Subject Coverage**

Topics include, but are not limited to, the following:

- Semantic Web approaches to digital libraries
- Web 2.0 and social web approaches to digital libraries
- Collaborative/community annotations of content in digital libraries
- Collaborative filtering
- Integration of digital libraries with knowledge management and technology enhanced learning systems
- Ontologies for cataloguing and retrieving digital resources
- Semantic Web-enabled resource retrieval in electronic libraries
- Managing catalogues through ontologies
- Approaches to annotation of resources and its cost
- Regulatory ontologies: implications for library management
- Scientific knowledge organisation and ontologies
- New roles and competencies of librarians in semantic, metadata-intensive institutions
- Concepts of digital libraries and digital documents
- System architectures, integration and interoperability
- Information organisation, search and usage
- Digital preservation
- Frameworks, technical architectures and reference models
- Evaluation of repository models
- Digital repositories and open access
- Workflows and dataflows
- Common and shared repository services
- Ingest and metadata capture
- Automated metadata creation
- Policy and organisational issues
- Trust, audit and certification, authenticity, validation
- Rights management

⬤ **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere

All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *[Author Guidelines](#)* page

⬤ **Important Dates**

1-2 Page Abstract: *30 March 2007*
Submission of manuscripts: *15 June 2007*
Notification to authors: *15 July 2007*

Final versions due: *25 September 2007*

Digital Culture and Cultural Heritage: Archives, Museums and Art – New Technologies, New Channels, New Culture"

http://www.inderscience.com/browse/callpaper.php?callID=639

Special Issue on: "Digital Culture and Cultural Heritage: Archives, Museums and Art - New Technologies, New Channels, New Culture"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
Elena García-Barriocanal, University of Alcalá, Spain
Lily Diaz-Kommonen, University of Art and Design Helsinki, Finland
Patricia Ordóñez De Pablos, University of Oviedo, Spain

In the digital world of the knowledge society, the development of infrastructures for the provision of access to cultural content and the preservation of cultural heritage requires a multifold analysis of social, business, and technological factors. In the context of the knowledge society, the key inquiry is to go beyond the traditional barriers for the open and equal access to cultural content and to integrate cultural content with learning and education.

In a global perspective, the new capacities of emerging technologies, such as pervasive and ubiquitous computing, semantic knowledge portals, broadband and satellite networks, Web 2.0 and semantic web, and open source software, set new challenges, define new horizons for human creativity and connectivity. Our strategic fit is that culture requires an integrated approach emphasising content, context and multiple, dynamic views of interactions.

This special issue focuses on digital culture as a domain where multiple and diverse scientific areas interact, new ideas of human creativity are applied and new services demonstrate the capacities of new technologies to define new digital ways of cultural content provision.

NOTE: *All the authors of accepted papers will be invited in an international summit, with various think tanks promoting the humanistic vision of knowledge society, bringing together academics, practitioners, government and industry [if you are interested in this summit please contact Dr. Miltiadis Lytras]*

⬡ **Subject Coverage**

Topics include, but are not limited to, the following:

- Culture portals
- Advanced systems for digital culture in museums, archives and art institutions
- Digitalisation of cultural property
- Worldwide initiatives for the protection of cultural heritage
- Linking digital culture and learning
- Annotation of cultural content
- Web 2.0 and development of social networks on the top of cultural heritage portals
- Applications of mobile technologies for digital culture and cultural heritage
- Ubiquitous and pervasive computing for digital culture and cultural heritage
- Integration of digital culture and education
- A diverse and multilingual cultural heritage

- Changing meanings of culture:
- Cultural diversity and multilingualism
- Methodologies and approaches to digitisation
- Cost and access to digital culture heritage resources
- Science portals
- Schools portals
- Virtual reality and digital culture
- Emerging forms of digitisation
- Sustainable cultural heritage
- Long term planning for protecting digital resources
- Access to archives in Europe
- Books and electronic publishing
- Cultural policy and cultural diversity
- Culture and neighbourhoods
- Culture, creativity and the young
- Case studies: cinema, dance, arts, tales and legends, tourism
- New information technologies
- Training of cultural administrators

⬥ **Notes for Intending Authors**
Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

⬥ **Important Dates**
1-2 Page Abstract: *30 April 2007*
Submission of manuscripts: *30 September 2007*
Notification to authors: *30 October 2007*
Final versions due: *15 December 2007*

National Tourism Organisations and Exploitation of Information Technologies - Tourism Portals in the Web 2.0 and Semantic Web Era
http://www.inderscience.com/browse/callpaper.php?callID=640

Special Issue on: "National Tourism Organisations and Exploitation of Information Technologies - Tourism Portals in the Web 2.0 and Semantic Web Era"

*Guest Editors***:**
Miltiadis Lytras, University of Patras, Greece
Daniel R. Fesenmaier, Temple University, USA
Markus Zanker, University Klagenfurt, Austria
Patricia Ordóñez De Pablos, University of Oviedo, Spain

National tourism organisations invest each year billions of dollars for the promotion of national tourism in targeted markets. Within this overall context, one of the most significant aspects of promotional activities relates to the design, implementation and provision of tourism portals.

Nowadays, the evolution of technologies such as tourism portal technologies, push/pull technologies, Web 2.0, semantic web, adaptive and personalised technologies, metadata and content standards, free and open

source software, ubiquitous and pervasive technologies, intelligent agents, content/knowledge management systems, emerging technologies and grid technologies, set new challenges for tourism portals and the promotion of content worldwide.

This special issue aims to deliver sound propositions for the exploitation of the emerging technologies in national tourism organisations towards better models of information provision to the beneficiaries of the tourism product.

NOTE: *All the authors of accepted papers will be invited in an international summit, with various think tanks promoting the humanistic vision of knowledge society, bringing together academics, practitioners, government and industry [if you are interested in this summit, please contact Dr. Miltiadis Lytras, below]*

⬡ Subject Coverage

Topics include, but are not limited to, the following:

- Tourism portals
- Push/pull technologies for tourism portals
- Web 2.0 and tourism portals
- Semantic web and tourism portals
- Adaptive and personalised technologies
- Metadata and content standards
- Free and open source software
- Ubiquitous and pervasive technologies
- Intelligent agents
- Content/knowledge management systems
- Emerging technologies
- Grid technologies
- Domain applications: tourism portals for national government tourism organisations, hotels, marketplaces, etc
- Tools/emerging technologies and new generation applications
- Challenges for the future; specification of government policies for the promotion of tourism portals
- Roadmaps for the future
- Collaborative tools for tourism
- Design variables and conditions for knowledge sharing and creation systems in tourism
- Blogging for tourism
- Collaborative filtering of tourism content
- Analysing social interaction for finding knowledge among web users
- Semantic desktops
- Social network analysis to support implicit learning and sharing within tourism environments
- Analysis of large online tourism communities
- Folksonomies, tagging and other collaboration-based categorisation systems in tourism portals
- Wikis, semantic wikis and other collaborative knowledge creation systems
- Online social networking at all levels of tourism
- Applications of online semantic networks to tourism

⬡ Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

⬤ **Important Dates**
1-2 Page Abstract: *30 April 2007*
Submission of Manuscripts: *15 October 2007*
Notification to Authors: *15 November 2007*
Final Versions Due: *15 December 2007*

International Journal of Electronic Banking (IJEBank)

ISSN (Online): 1753-5247 - ISSN (Print): 1753-5239

http://www.inderscience.com/ijebank

Strategic Management of E-Banking: Business Strategies and Beyond - Alternative Channels and New Core Businesses"
http://www.inderscience.com/browse/callpaper.php?callID=645

Special Issue on: "Strategic Management of E-Banking: Business Strategies and Beyond – Alternative Channels and New Core Businesses"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
Russ Meir, University of Wisconsin-Green Bay, USA
Patricia Ordóñez De Pablos, University of Oviedo, Spain

The evolution of e-banking in the last decade has been significant. Every bank, in parallel with the traditional business offerings, provides more or less advanced e-banking services to various categories of customers. Nowadays it seems that we have reach a first point of maturity. The initial perception of e-banking as an alternative channel issue seems to be inadequate to summarise the emerging challenges for e-banking.

New strategic considerations for e-banking initiate a dialogue for a new era of services and required infrastructures. All the forecasts concerning e-banking are very optimistic. A very promising future for e-banking sector sets new challenges for the strategic management of e-banking divisions within banking organisations.

This special issue brings together academics, practitioners, researchers, and aims to deliver a reference edition for all those interested in the strategic management of e-banking.

⬣ **Subject Coverage**

Topics include, but are not limited to, the following:

- Business strategies for e-banking
- Strategic management of IT component
- Human factor of e-banking
- Strategising social networks in e-banking
- Strategic clustering
- Modelling of strategic business processes
- Information provision gap analysis
- IT-enabled competitive advantage
- Competition analysis in e-banking
- Reflective strategies
- Understanding e-banking business environment
- Challenges from globalisation

- The role of emerging technologies: intelligent agents, recommendation systems, semantic web, web 2.0, collaborative technologies
- Strategic considerations of security in e-banking
- Strategic management of competencies
- Strategic management for technology enhance learning in e-banking
- Collaborative life

⬯ **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere

All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

⬯ **Important Dates**

1-2 Page Abstract: *15 May 2007*

Submission of Manuscripts: *15 November 2007*

Notification to Authors: *15 December 2007*

Final Versions Due: *15 March 2008*

Advances in Knowledge Management for E-banking - Towards High Performance Banking Systems"
http://www.inderscience.com/browse/callpaper.php?callID=647

Special Issue on: "Advances in Knowledge Management for E-banking - Towards High Performance Banking Systems"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
Patricia Ordóñez De Pablos, University of Oviedo, Spain

The banking industry is characterised as one of the most knowledge intensive sectors. From this perspective, banks' performance is directly related to the performance of knowledge.

Knowledge management has been used as a high-promise business concept. In an era of business transition, the effective management of knowledge is proposed as a strategy that exploits the organisational intangible assets. However, the term 'knowledge management' has been used in order to describe many different applications. In some cases, the tag of 'knowledge management product' is attached to several software programs purely for marketing reasons.

We recognise knowledge management as a socio-technical phenomenon where the basic social constructs such as person, team and organisation require support from ICT applications. In this special issue, we investigate the full range of knowledge management technologies and the latest developments as promoted by the advent of the semantic web and Web 2.0

This issue brings together academics, practitioners, researchers, and aims to deliver a reference edition for all those interested in the exploitation of knowledge management for the banking industry.

⬢ **Subject Coverage**

Topics include, but are not limited to, the following:

SECTION A: ARTIFACT LEVEL

- Managing documents
- Managing metadata and semantics
- Managing taxonomies

SECTION B: INDIVIDUAL LEVEL

- Constructing yellow pages of experts
- Managing individual profiles
- Managing tacit knowledge

SECTION C: TEAM LEVEL

- Managing workflows
- Managing discussion forums
- Exploiting collaborative work systems
- Managing team dynamics

SECTION D: ORGANISATIONAL LEVEL

- Building best practices
- Developing knowledge maps/ontologies
- Managing competencies
- Managing organisational memory

SECTION E: INTER-ORGANISATIONAL LEVEL

- Managing inter-organisational network
- Managing projects
- Future technologies

⬢ **Notes for Intending Authors**
Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere
All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page
⬢ **Important Dates**
1-2 Page Abstract: *15 May 2007*
Submission of Manuscripts: *15 October 2007*
Notification to Authors: *15 November 2007*
Final Versions Due: *15 February 2008*

Enterprise Resource Planning Systems in the Banking Industry - Reengineering of Process and Exploitation of Emerging Technologies
http://www.inderscience.com/browse/callpaper.php?callID=648

Special Issue on: "Enterprise Resource Planning Systems in the Banking Industry - Reengineering of Process and Exploitation of Emerging Technologies"

Guest Editors:
Miltiadis Lytras, University of Patras, Greece
Jorge Cardoso, University of Madeira, Spain
Patricia Ordóñez De Pablos, University of Oviedo, Spain

Each year in the banking sector, billions of dollars are invested in various forms of enterprise resource planning systems (ERPs). In most of cases, the business justification of these applications is anchored to various highly promising concepts such as competitive advantage, increased customer value, better management of internal processes, better customer service. On the other hand, is obvious that ERPs are not a panacea for the various aspects of a multifold enterprise performance.

In this special issue, we focus on the emerging agenda for the adoption of ERP systems in the banking industry. We apply a balanced theoretical/business and applied/technological perspective, targeting the development of an excellent quality reference edition for all those interested in the adoption of ERP in the banking sector.

⬢ **Subject Coverage**

Topics include, but are not limited to, the following:

- Business process reengineering in banking industry
- New banking industry dynamics
- ERPs for e-banking: modules and applications
- Customer relationship management for e-banking
- Web services and advanced approaches to customer support
- Design variables and application of social network analysis to the personalisation of services
- Outsourcing
- Strategic management of ERPs within banks
- Advanced applications of semantic web and Web 2.0 for e-banking
- Integration of legacy systems in ERPs
- Enterprise application integration in banking industry
- Enterprise portals
- Decision support and ERPs
- Executive information systems and ERPs
- Value chain analysis and ERP integration
- Frameworks and strategies for ERP implementation
- Advanced database approaches: multidimensional and OLAP
- Workflow management

⬢ **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere

All papers are refereed through a peer review process. A guide for authors, sample copies and other relevant information for submitting papers are available on the *Author Guidelines* page

⬢ **Important Dates**

1-2 Page Abstract: *15 May 2007*

Submission of Manuscripts: *15 October 2007*

Notification to Authors: *15 November 2007*

Final Versions Due: *15 February 2008*

MORE SPECIAL ISSUES

International Journal of China Cultrure And Management

International Journal of Chinese Culture and Management (IJCCM)
ISSN (Online): 1752-1289 - ISSN (Print): 1752-1270

Published in 4 issues per year (View Subscription Price)

Call for Papers

- Special Issue on: "Business Culture and Management in China"

- Special Issue on: "Information and Communication Technologies: EU-China Cooperation"

- Special Issue on: "Tourism and Development in China - Key Issues"

- Special Issue on: "Information Society in China and EU: Synergies and Cooperation"

China is not the only fast-growing emerging economy that is making waves around the world. China's current economic growth rate is approximately 9 percent annually, which is impressive economically. Its contribution to global GDP growth since 2000 has been almost twice as large as that of the next three biggest emerging economies (India, Brazil and Russia) combined. Some even refer to China as the mother of emerging markets and transition economies.

Directly or indirectly, the Chinese economy has influenced interest rates, prices for raw materials and wages in the western established economies. Currently China is the most R&D intense of emerging market countries and is seventh of all countries in the world. Its economic power is exemplified by the fact that it is expected to be the fifth largest source of outward foreign direct investment during 2004-2007. Working with Chinese firms has become a reality for a majority of managers in Western countries. With its high growth rate, the presence and impact of the Chinese economy will only become larger.

With China's importance on the global scale set to grow faster than ever, *IJCCM* offers a unique window to observe the changes that will chart the course of the future in this region of the world. One of the keys to dealing with China is understanding the complex dynamic between rapid change and tradition.

With a clear international and interdisciplinary approach, *IJCCM* proposes and fosters discussion on Chinese culture, business, management and related topics. It presents timely and in-depth analyses on these topics, offering the reader a wealth of valuable material on theories and practices which underpin successful business in China.

○ Objectives

The objectives of *IJCCM* are to establish an effective channel of communication between, academic and research institutions, policy makers, government agencies and persons concerned with the complexities of

Chinese culture, economics and management, among other topics. It also aims to promote and coordinate developments in the field of Chinese studies.

⬡ Readership

IJCCM provides a vehicle to help professionals, academics, researchers and policy makers, working in the field of Chinese issues, to disseminate information and to learn from each other's work:

- Corporate heads of firms
- Senior general managers
- Managing directors
- Board directors
- Academics and researchers in the field both in universities and business schools
- Information technology directors and managers
- Quality managers and directors
- Human resource directors
- Libraries and information centres serving the needs of the above

⬡ Contents

IJCCM publishes original papers, technical reports, case studies, conference reports, management reports, book reviews, and news. Special Issues devoted to important topics in the Chinese emerging economy, business and culture in China will occasionally be published.

⬡ Subject Coverage

The topics of interest for *IJCCM* involve, but are not limited to, the following:

- Asia-Pacific region
- Culture
- Business
- Economy
- Culture and economic role in science, engineering and technology
- Management
- Entrepreneurship
- Environment
- Ethics
- EU-China relations
- Foreign investment
- Foreign trade
- Innovation
- Marketing
- Modernisation
- Protocol and etiquette
- Social issues
- Tourism
- US-China relations

⬡ Specific Notes for Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the Submission of Papers web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in Author Guidelines) to **Prof. Patricia Ordoñez de Pablos**, below, with a copy to:

IEL Editorial Office
E-mail: ijccm@inderscience.com

Please include in your submission the title of the Journal

◐ **Editors and Members of the Editorial Board**

Editor in Chief

Prof. Patricia Ordóñez de Pablos
Universidad de Oviedo
Departmento de Administracion de Empresas y Conabilidad
Facultad de Ciencias Economicas
Avd del Cristo
s/n 33071 Oviedo-Asturias
SPAIN
patriop@uniovi.es

Associate Editors

Prof. W. B. Lee
Chair Professor and Head
The Hong Kong Polytechnic University
Department of Industrial and Systems Engineering
HungHom, Kowloon
HONG KONG (CHINA)

Prof. Zhongkai Xiong
Chongqing University
School Business
Chongqing 400044
P.R. CHINA

Prof. Qingrui Xu
Zhejiang University
College of Management
Xiang Zhang APT House, Bldg 42-2, Room 302
360 Wen San Xi Road
Hangzhou 310012
P.R. CHINA

International Journal of Learning and Intellectual Capital (IJLIC)
ISSN (Online): 1479-4861 - ISSN (Print): 1479-4853

Published in 4 issues per year (View Subscription Price)

Recent   **Issues:**
» 2006 Vol. 3 No. 4   » 2006 Vol. 3 No. 3   » 2006 Vol. 3 No. 2   More Issues

Call for Papers

- Special Issue on: "Intellectual Capital as a Useful Perspective in Understanding Business Model Innovations"
- Special Issue on: "Intellectual Capital Reporting and Knowledge Management: a European Perspective"
- Special Issue on: "Innovation and Knowledge Management: Challenges for the Firm"
- Special Issue on: "Intellectual Capital Reporting and Contextual Influences in Organisational Learning"

Click to download IJLIC leaflet

Conference Announcement
The 5th International Symposium on Management of Technology (ISMOT'07)
1 - 3 June 2007
Zhejiang University, Hangzhou, P.R. China
more details

Conference Announcement
Intellectual Capital Congress
IC-Congress 2007
3-4 May 2007
Holland University, Haarlem, The Netherlands
more details

Strategy management is concerned with understanding the forces and causes that explain performance differences between organisations. One approach studies industry structures as external determinants of organisational performance. An alternative approach focuses on internal resources and capabilities as sources of sustained competitive advantage. This is the resource and capabilities theory of the firm. On the other hand, the knowledge-based view of the firm considers the firm as a repository of knowledge-based resources and capabilities. To the extent that these resources and capabilities are unique, rare, difficult to imitate and non-substitutable, they confer sustained competitive advantage on the firm. Thus, in these approaches, organisational performance differences are a result of different stocks of knowledge-based resources and capabilities. In parallel to this, intellectual capital literature focuses on the measurement of firms' knowledge base. It also deals with building guidelines for the development of ''intellectual capital accounts'', a corporate report to inform about firms' stock of knowledge-based resources.

The *IJLIC* provides a global forum for exchanging research findings and case studies which bridge the latest advances on organisational learning, knowledge management and intellectual capital measuring

and reporting. It promotes ways in which knowledge management, intellectual capital and organisational learning impact on firms' competitive advantage in the New Economy.

⬢ Objectives

The topics of Organisational Learning (OL), Knowledge Management (KM) and Intellectual Capital (IC) are receiving increased interest both from the academic community and companies because of the influence of innovation and learning on the achievement of a competitive advantage for the firm in the New Economy. Literature on knowledge management and intellectual capital suggests that competitive advantage flows from the creation, ownership, protection, storage and use of certain knowledge-based organisational resources. Superior organisational performance depends on firms' ability to be good at innovation, learning, protecting, deploying, amplifying and measuring these strategic intangible resources.

The objective of *IJLIC* is to bring together a selection of new perspectives that collectively articulate a knowledge-based view of strategy management. It adopts a knowledge-based view that considers the role of the firm in the nurturing, deployment, storage and measurement of the organisation's knowledge.

⬢ Readership

Organisational Learning, Intellectual Capital and Knowledge Management have a broad appeal and *IJLIC* readership will include:

- Corporate heads of firms
- Senior general managers
- Managing directors
- Chief knowledge officers
- Chief intellectual capital officers
- Board directors
- Academics and researchers in the field both in universities and business schools
- Auditors
- Information technology directors and managers
- Quality managers and directors
- Human resource directors
- Libraries and information centres serving the needs of the above

⬢ Contents

IJLIC offers a holistic view of the resources, tools, techniques, strategies and technologies necessary for the effective implementation of knowledge management, intellectual capital measuring and reporting and organisational learning in firms. It is double blind peer-reviewed and publishes both high-quality academic (theoretical or empirical) and practical papers in the broad ranges of knowledge management and intellectual capital topics

⬢ Subject Coverage

IJLIC topics include, but are not limited to the following:

- Intangible resources
- Competitive strategy
- Knowledge-based view of the firm
- Human capital, relational capital, social capital and organisational capital

- Human resource management
- Intellectual capital reporting
- Organisational learning
- Social networks
- Innovation and knowledge management
- Innovation and leadership
- Product and process innovation
- Technology and innovation management
- Dynamic capabilities and routines
- Quality
- Case studies

⬢ Specific Notes for Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the Submission of Papers web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in Author Guidelines) to Prof. Dr. Patricia Ordoñez de Pablos, below, with an email copy only to:

IEL Editorial Office
E-mail: ijlic@inderscience.com

Please include in your submission the title of the Journal

⬢ Editors and Members of the Editorial Board

Executive Editor

Prof. Patricia Ordóñez de Pablos
Universidad de Oviedo
Departmento de Administracion de Empresas y Conabilidad
Facultad de Ciencias Economicas
Avd del Cristo
s/n 33071 Oviedo-Asturias
SPAIN
patriop@uniovi.es

Associate Editors

Prof. Eduardo Bueno Campos
Director, CIC - Knowledge Society Research Centre; Director, PCM - Madrid Science Park; Chair in Business Administration
Universidad Autónoma de Madrid
Ctra. de Colmenar, km. 15, Campus de Cantoblanco UAM
Pabellón C, 1º planta

28049 Madrid
SPAIN

Prof. Margaret Peteraf
Tuck School of Business at Dartmouth
100 Tuck Hall
Hanover NH 03755
USA

Prof. Michael H. Zack
Associate Professor
College of Business Administration
Northeastern University
214 Hayden Hall, 360 Huntington Avenue
Boston MA 02115
USA

International Journal of Strategic Change Management (IJSCM)
ISSN (Online): 1740-2867 - ISSN (Print): 1740-2859

Published in 4 issues per year (View Subscription Price)

Recent   Issues:
» 2006 Vol. 1 No. 1/2   More Issues

Call for Papers

-

    Special Issue on: "Knowledge Governance"

Click to download IJSCM leaflet

Conference Announcement
The 5th International Symposium on Management of Technology (ISMOT'07)
1   -   3   June   2007
Zhejiang University, Hangzhou, P.R. China
more details

With a clear international and interdisciplinary approach, the *IJSCM* proposes and fosters discussion on strategic change management implementation and follow-up and related topics. It offers the reader a wealth of valuable material on theories and practices which underpin successful strategic change. One of the keys to dealing with change is understanding that change is never over and brings opportunity to those who can grasp it.

⬡ Objectives

The objectives of *IJSCM* are to establish an effective channel of communication between academic and research institutions, policy makers, government agencies and persons concerned with the complex issue of strategic change management. It also aims to promote and coordinate developments in the field of change management. The international dimension is emphasised in order to overcome cultural and national barriers and to meet the needs of accelerating technological and ecological change and changes in the competitive environment organisations face today.

⬡ Readership

IJSCM provides a vehicle to help professionals, academics, researchers and policy makers, working in the field of strategic change management to disseminate information and to learn from each other's work:

- Corporate heads of firms
- Senior general managers
- Managing directors
- Board directors
- Academics and researchers in the field both in universities and business schools
- Information technology directors and managers
- Quality managers and directors
- Human resource directors
- Libraries and information centres serving the needs of the above

⬡ Contents

IJSCM publishes original papers, technical reports, case studies, conference reports, management reports, book reviews, and news. Special Issues devoted to important topics in Strategic Change Management will occasionally be published.

⬡ Subject Coverage

The following topics are among those of interest to *IJSCM*:

- Adapting strategic planning to the need for change
- Managing strategy
- Change implementation and follow-through
- Competitive advantage and strategic change management
- Leadership
- The role of learning at different levels (individual, group, organisational and interorganisational level)
- Strategic change and human capital
- TQM

⬡ Specific Notes for Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere.

All papers are refereed through a double blind process. A guide for authors, sample copies and other relevant information for submitting papers are available on the Submission of Papers web-page.

You may send one copy in the form of an MS Word file attached to an e-mail (details of file formats in Author Guidelines) to Prof. Dr. Patricia Ordoñez de Pablos, below, with an email copy only to:

IEL   Editorial   Office
E-mail: ijscm@inderscience.com

Please include in your submission the title of the Journal

⬙ **Editors and Members of the Editorial Board**

Editor in Chief

Prof. Patricia Ordóñez de Pablos
Universidad de Oviedo
Departmento de Administracion de Empresas y Conabilidad
Facultad de Ciencias Economicas
Avd del Cristo
s/n 33071 Oviedo-Asturias
SPAIN
patriop@uniovi.es

Executive Editor

Prof. Margaret Peteraf
Tuck School of Business at Dartmouth
100 Tuck Hall
Hanover NH 03755
USA
Margaret.A.Peteraf@dartmouth.edu

Consulting Editors

Prof. Anita M. McGahan
Professor of Strategy and Policy; Everett W. Lord Distinguished Faculty Scholar
Boston University School of Management
595 Commonwealth Avenue
Boston MA 02215
USA

Prof. Oliver E. Williamson
Professor of the Graduate School; Edgar F. Kaiser Professor Emeritus of Business, Economics, and Law
University of California Berkeley
Walter A. Haas School of Business
S545 Student Services Bldg. #1900
Berkeley, CA 94720-1900
USA

Associate Editors

Prof. Eduardo Bueno Campos
Director, CIC - Knowledge Society Research Centre; Director, PCM - Madrid Science Park; Chair in Business Administration
Universidad Autónoma de Madrid
Ctra. de Colmenar, km. 15, Campus de Cantoblanco UAM
Pabellón C, 1º planta
28049 Madrid
SPAIN

Prof. Alok K. Chakrabarti
Distinguished Professor of Management and Industrial Engineering
New Jersey Institute of Technology
Newark NJ 07102
USA

BOOK SERIES INFORMATION

Advances in Emerging Information Technology Issues Series (AEITI)

The **Advances in Emerging Information Technology Issues (AEITI) Book Series** aims to promote leading edge research in Emerging Technologies and Topics of Information Technologies. With a focus to a balanced discussion of technological and business issues, the book series endeavors to develop bridges between the IT industry, IT practitioners and Academia towards a holistic discussion on the adoption of Emerging technologies to the business world and society. This approach fills in a critical gap traditionally found in formalistic discussions for the role of emerging technologies, and responds to the need of society for the exploitation of emerging IT innovations. The books in this series are targeted to answer jointly the WHAT, HOW and WHY of emerging technologies through applied approaches in real world problems.

2. Advances in Semantic Web and Information Systems Series (ASWIS)

The **Advances in Semantic Web and Information Systems (ASWIS) Book Series** promotes a knowledge transfer channel where academics, practitioners and researchers can discuss, analyze, criticize, synthesize, communicate, elaborate, and simplify the more than promising technology of the Semantic Web in the context of Information Systems. The book series aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: Academia, Industry, and Government.

3. Advances in Strategic Management and Sustainable Development Series (ASMSD)

The **Advances in Strategic Management and Sustainable Development (ASMSD) Book Series** is a timely series responding to the high demand for state-of-the-art knowledge on how information technologies provide infrastructures, systems and services towards sustainable development. With a focus on local and global challenges, business opportunities and societal needs, the book series is promoting a scientific debate for international collaboration, peace and understanding based on sustainable development. In a world were traditional business practices are reconsidered; economic activity is performed in a global context; new areas of economic development are recognized as the key enablers of wealth and income production; the quest for collaboration and exploitation of synergies is recognized as an Information Technologies Primer; this book series brings together academics, researchers, entrepreneurs, policy makers and government officers aiming to contribute to the debate on Sustainable Development and Strategic Management.

Advances in Emerging Information Technology Issues Series (AEITI)
http://www.igi-pub.com/bookseries/details.asp?ID=433

Editors-in-Chief:
Miltiadis Lytras, Athens University of Economics and Business, Greece
Patricia Ordορez de Pablos, The University of Oviedo, Spain

Description:
The **Advances in Emerging Information Technology Issues (AEITI) Book Series** aims to promote leading edge research in Emerging Technologies and Topics of Information Technologies. With a focus to a balanced discussion of technological and business issues, the book series endeavors to develop bridges between the IT industry, IT practitioners and Academia towards a holistic discussion on the adoption of Emerging technologies to the business world and society.

This approach fills in a critical gap traditionally found in formalistic discussions for the role of emerging technologies, and responds to the need of society for the exploitation of emerging IT innovations. The books in this series are targeted to answer jointly the WHAT, HOW and WHY of emerging technologies through applied approaches in real world problems.

Coverage:
The main themes covered in the book series include:

Emerging Technologies and Topics in IT
New Generation Information systems
Integrative discussions on Emerging Technologies [like Open Source Software, Grid Technologies, Ubiquitous and Mobile nets, Nanotechnologies, Cognitive Systems, Social Research, Social Networks, Knowledge Systems and Intellectual Capital]
Contextual Showcases of Emerging Technologies adoption in Real world Contexts [e.g. Education, Culture, Health, Trade, Banking, etc]
Benchmarking of Industry Practices and Adoption of Emerging Technologies
Scientific Research Collaboration

Advances in Semantic Web and Information Systems Series (ASWIS)
http://www.igi-pub.com/bookseries/details.asp?id=430

Editor-in-Chief: Miltiadis Lytras, Athens University of Economics and Business, Greece

Description:
The **Advances in Semantic Web and Information Systems (ASWIS) Book Series** promotes a knowledge transfer channel where academics, practitioners and researchers can discuss, analyze, criticize, synthesize, communicate, elaborate, and simplify the more than promising technology of the Semantic Web in the context of Information Systems. The book series aims to establish value-adding knowledge transfer and personal development channels in three distinctive areas: Academia, Industry, and Government.

Coverage:
The main themes covered in the ASWIS include:

Semantic Web Issues, challenges and Implications in each of the IS research streams
Real world applications towards the development of the Knowledge society
New Semantic Web enabled Tools for the citizen/ learner/ organization/ business
New Semantic Web enabled Business Models
New Semantic Web enabled Information systems
Integration with other disciplines
Intelligent Systems
Standards
Semantic enabled business intelligence
Enterprise Application Integration
Metadata-driven (bottom-up) versus ontology-driven (top-down) SW development
From e-Government to e-Democracy

Guidelines for Book Submission:
All those interested in contributing an edited or authored book to the series are invited to prepare a 5-10 page prospectus (in addition to contributor CVs) that includes the following information:

1. 3-5 SUGGESTED TITLES for your proposed publication
2. A SYNOPSIS of your proposed publication, including a concise DEFINITION of the subject area
3. INTRODUCTION TO THE SUBJECT AREA
4. 5-10 INDEXING KEYWORDS for your proposed subject area
5. Overall OBJECTIVES AND MISSION of your proposed publication
6. SCHOLARLY VALUE AND POTENTIAL CONTRIBUTION to information science, technology and management literature
7. PURPOSE AND POTENTIAL IMPACT on your field of research
8. UNIQUE CHARACTERISTICS of your proposed publication
9. PROSPECTIVE AUDIENCE for such a publication
10. POTENTIAL BENEFITS readers will gain from your proposed publication
11. EXISTING COMPETING PUBLICATIONS and their advantages and disadvantages in comparison to your proposed publication
12. TENTATIVE TABLE OF CONTENTS
13. PROJECTED TOTAL PAGE/WORD COUNT for proposed publication

14. TENTATIVE TIMETABLE for the entire project
15. POTENTIAL CHANNELS OF CALL DISTRIBUTION for the procurement of submissions and contacts (List-Servs, Universities, etc.)
16. COMPLETE MAILING ADDRESS, phone, fax and e-mail information FOR EACH EDITOR/AUTHOR
17. A COPY OF YOUR VITAE, listing education and publication records FOR EACH EDITOR/AUTHOR

Please forward proposals and submission inquiries to:
Miltiadis Lytras
Editor-in-Chief
Advances in Semantic Web and Information Systems (ASWIS) Book Series
lytras@ceid.upatras.gr

Advances in Strategic Management and Sustainable Development Series (ASMSD)
http://www.igi-pub.com/bookseries/details.asp?id=434

Editors-in-Chief:
 Miltiadis Lytras, Athens University of Economics and Business, Greece
Patricia Ordoρez de Pablos, The University of Oviedo, Spain

Description:
The **Advances in Strategic Management and Sustainable Development (ASMSD) Book Series** is a timely series responding to the high demand for state-of-the-art knowledge on how information technologies provide infrastructures, systems and services towards sustainable development. With a focus on local and global challenges, business opportunities and societal needs, the book series is promoting a scientific debate for international collaboration, peace and understanding based on sustainable development.

In a world were traditional business practices are reconsidered; economic activity is performed in a global context; new areas of economic development are recognized as the key enablers of wealth and income production; the quest for collaboration and exploitation of synergies is recognized as an Information Technologies Primer; this book series brings together academics, researchers, entrepreneurs, policy makers and government officers aiming to contribute to the debate on Sustainable Development and Strategic Management.

Coverage:
The main themes covered in the book series include:

IT for Sustainable Development
IT for Strategic Management and Strategic Management of IT
Business Models for Sustainable Development
Regional Studies: E.g. China, Arab World, Africa, North and South America etc
Outsourcing
Global business and IT
Joint Ventures and IT
IT scientific parks
Intellectual Capital and IT
Global content and knowledge repositories
IT for the disabled and minorities
IT and under development world
IT for Humanistic Visions
Benchmarking Reports

Guidelines for Book Submission:

All those interested in contributing an edited or authored book to the series are invited to prepare a 5-10 page prospectus (in addition to contributor CVs) that includes the following information:

1. 3-5 SUGGESTED TITLES for your proposed publication
2. A SYNOPSIS of your proposed publication, including a concise DEFINITION of the subject area
3. INTRODUCTION TO THE SUBJECT AREA
4. 5-10 INDEXING KEYWORDS for your proposed subject area
5. Overall OBJECTIVES AND MISSION of your proposed publication
6. SCHOLARLY VALUE AND POTENTIAL CONTRIBUTION to information science, technology and management literature
7. PURPOSE AND POTENTIAL IMPACT on your field of research
8. UNIQUE CHARACTERISTICS of your proposed publication
9. PROSPECTIVE AUDIENCE for such a publication
10. POTENTIAL BENEFITS readers will gain from your proposed publication
11. EXISTING COMPETING PUBLICATIONS and their advantages and disadvantages in comparison to your proposed publication
12. TENTATIVE TABLE OF CONTENTS
13. PROJECTED TOTAL PAGE/WORD COUNT for proposed publication
14. TENTATIVE TIMETABLE for the entire project
15. POTENTIAL CHANNELS OF CALL DISTRIBUTION for the procurement of submissions and contacts (List-Servs, Universities, etc.)
16. COMPLETE MAILING ADDRESS, phone, fax and e-mail information FOR EACH EDITOR/AUTHOR
17. A COPY OF YOUR VITAE, listing education and publication records FOR EACH EDITOR/AUTHOR

Please forward proposals and submission inquiries to:
Miltiadis Lytras
Co-Editor-in-Chief
Advances in Strategic Management and Sustainable Development (ASMSD)
lytras@ceid.upatras.gr

or

Patricia Ordσρez de Pablos
Co-Editor-in-Chief
Advances in Strategic Management and Sustainable Development (ASMSD)
patriop@uniovi.es

"Knowledge and Learning Society Book Series", http://www.idea-group.com/requests/details.asp?ID=121

Knowledge and Learning Society Series

Editor in Chief: Miltiadis D. Lytras, University of Patras, Greece

Mission:

The knowledge society is often treated as a utopia, where optimistic considerations for the role of new technologies envision unrealistic value-adding services for citizens, and knowledge is purported to create dramatic economic advances.

In the last years, several scientific disciplines have initiated debates on the characteristics of the knowledge society and the required consultations towards the establishment of   managing bodies   , the crafting of strategies and policies as well as the specification of action programs.

Given the significance of the knowledge society as a new context of our era, four significant objectives formulate the justification of our book series:

1. The need to investigate the   soft   and   hard   aspects of the knowledge society, with the aim of providing organizational and cultural frameworks as well as infrastructures enabled by the evolution of information technologies.

2. The need to provide a sustainable worldwide knowledge society vision based on collaboration, knowledge and learning for all and especially for people in need.

3. The need to anchor government policies in scientific evidence concerning the characteristics of the emerging knowledge intensive economy and social environment.

4. The need to investigate the key priorities of the knowledge society in terms of critical aspects of human life (e.g. health, education, culture, science, business etc).

The titles in this book series are intended to promote the Knowledge and Learning society as the context of our leaving for the 21st century. Our titles target to the society bringing fresh ideas, technologies and novel approaches for sustainable development.

Titles Published/Scheduled/under Development:

Books

1.

Intelligent Learning Infrastructure for Knowledge Intensive Organizations

In the context of Knowledge Society, the convergence of knowledge and learning management is a critical milestone. **Intelligent Learning Infrastructure for Knowledge Intensive Organizations: A Semantic Web Perspective** provides state-of the art knowledge through a balanced theoretical and technological discussion. The semantic web perspective helps reader to understand the new era of intelligent learning infrastructures in knowledge intensive organizations.

2.
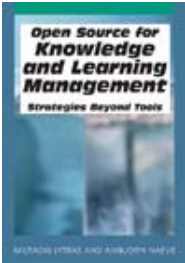
Open Source for Knowledge and Learning Management

In the last years, knowledge and learning management have made a significant impact on the IT research community.

3.
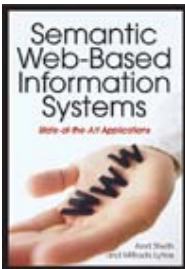
Semantic Web-Based Information Systems

As a new generation of technologies, frameworks, concepts and practices for information systems emerge, practitioners, academicians, and researchers are in need of a source where they can go to educate themselves on the latest innovations in this area.

4.
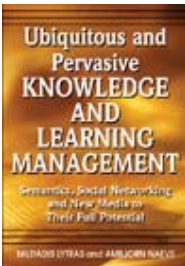
Ubiquitous and Pervasive Knowledge and Learning Management

The importance of semantics has been recognized in different areas of data and information management, including better access, exchange, interoperability, integration, and analysis of data. Semantics of data is about associating meaning to data, understanding what data represents, and improving the value of data.

Scheduled for 2007:

4. Technology Enhanced Learning: Best Practices, Huang, Gasevic, Lytras (eds)

5. Knowledge Management Strategies: A Handbook of Applied Technologies, Russ, Lytras Maier, Naeve (eds)

6. Knowledge and Networks: A social software perspective, Lytras, Tennyson, Ordonez (eds)

7. Semantic Web Engineering in the Knowledge Society, Cardoso, Lytras (eds)

Book Proposals for this Series-Info for potential contributors Academics and Practitioners interested in editing a book in this series are kindly requested to contact Dr. Miltiadis D. Lytras (lytras@ceid.upatras.gr)

FEATURED BOOKS

SEARCH INSIDE!™
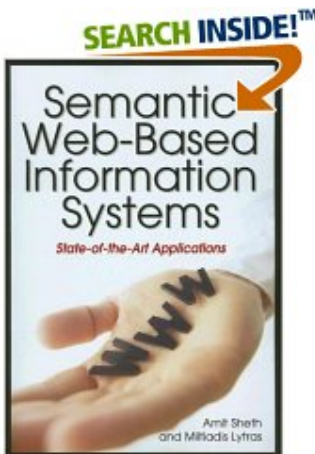
Semantic Web-Based Information Systems: State-of-the-Art Applications (Advances in Semantic Web and Information Systems, Vol. 1) (Advances in Semantic Web and Information Systems, Vol. 1) (Paperback)
Amit Sheth , Miltiadis Lytras (eds)

http://www.igi-pub.com/books/details.asp?id=6486

http://www.amazon.com/Semantic-Web-Based-Information-Systems-State/dp/1599044277/ref=sr_1_5/002-2773552-1404048?ie=UTF8&s=books&qid=1177326421&sr=1-5

Product Description
As a new generation of technologies, frameworks, concepts and practices for information systems emerge, practitioners, academicians, and researchers are in need of a source where they can go to educate themselves on the latest innovations in this area. Semantic Web Information Systems: State-of-the-Art Applications establishes value-added knowledge transfer and personal development channels in three distinctive areas: academia, industry, and government. Semantic Web Information Systems: State-of-the-Art Applications covers new semantic Web-enabled tools for the citizen, learner, organization, and business. Real-world applications toward the development of the knowledge society and semantic Web issues, challenges and implications in each of the IS research streams are included as viable sources for this challenging subject.

Preface
Importance of semantics has been recognized in different areas of data and information management, including better access, exchange, interoperability, integration and analysis of data. Semantics of data is about associating meaning to data, and understand what data represents, and improve the value of data. Early use of semantics in the context of data and information management occurred in the context of development of multidatabase or federated database systems, to be followed by mediator and information brokering architectures. As the Web started to take the shape as a global information system and as a way to connect distributed data repositories, usage of metadata and semantics correspondingly started in early 1990s and increased there after. The first use of the term semantic information brokering in 1993 conceived the use of semantics in the form of domain models and ontologies for heterogeneous data integration, and about the same time, ontology-based information integration was proposed in some mediator based projects. In the last two chapters of his book Weaving the Web (Harper, 1997), Tim Berners-Lee started to put forth a vision of the next phase of the Web in which semantics would play a critical role, and the term Semantic Web was coined. Research community, first supported by the DARPA s DAML program (for which Jim Handler was the program manager) quickly saw the new research opportunity. This book contributes to the revolutionary domain of Semantic Web and information systems in four following aspects, namely, vision, methodologies, tools and applications.

Part I: Vision

The first two chapters of the book present a vision, a provocative or an alternate view, and/or a counter-point.

The first chapter Semantics for the Semantic Web: The Implicit, the Formal and the Powerful takes the expansive view of the semantics in the Semantic Web. Considering the role of semantics in a number of research areas of computer science and beyond, this chapter explores the broad role of semantics and different types of semantics in various capabilities that would define and build the Semantic Web. The central message of this chapter is that building the Semantic Web purely on description logics (and to limit knowledge representation on ontology representation language to description logics) would artificially limit its potential. It argues that we will need to exploit well known techniques that support implicit semantics, as done in information retrieval and text analytics, and develop more powerful representation that can model probabilistic and fuzzy information needed to capture incomplete, inconsistent and uncertain nature of information and knowledge.

The second chapter The Human Semantic Web Shifting from Knowledge Push to Knowledge Pull provides an interesting counterpoint to the usual emphasis on machine-understandable (usually formal) semantics in the Semantic Web. It discusses a conceptual interface, providing human-understandable semantics. Correspondingly, the Human Semantic Web is described as a space for interaction, with three levels of semantic interoperability: isolation, coexistence, and collaboration.

Part II: Frameworks and Methodologies

This part of the book deals with architectural frameworks and methodological issues in building the Semantic Web.

Chapter 3 titled General Adaptation Framework: Enabling Interoperability for Industrial Web Resources by Kaykova and colleague focuses on interoperability of smart industrial resources. The objective of this work is to develop an architecture, where distributed human experts and learning Web-services are utilized by various devices for self-monitoring and self-diagnostics. One aspect of the technical approach is the Resource State/Condition Description Framework (RSCDF), which with contextual and temporal extensions to RDF, is argued to facilitate adoption of the Semantic Web technology industrial adoption.

The fourth chapter titled A Survey on Ontology Creation Methodologies by Cristani and Cuel is a survey presenting the state of the art of a rapidly evolving field. The key value-add of this survey is in the form of offering a systematic analysis of current approaches in developing domain ontologies that can be used to understand the inspiring motivation, the applicability context, and the structure of the approaches. The chapter also presents a classification identifying bottom-up and top-down methodologies that are claimed to be useful both from theoretical and deployment practice perspectives.

Part III: Techniques and Tools

In this part we introduce some of major techniques and tools developed in the domain of ontology

building and analysis and Semantic Web.

Chapter 5,   A Tool for Working with Web Ontologies   by Kalyanpur, Parsia, and Hendler, presents a tool (SWOOP) for building, modifying and searching ontologies. SWOOP is a stand alone application program to work with OWL ontologies. The authors discuss some insights into Web ontologies that were gained through the experience with SWOOP, including issues related to display, navigation, editing and collaborative annotation of OWL ontologies.

The sixth chapter,   An Ontology-Based Multimedia Annotator for the Semantic Web of Language Engineering   by Chebotko, Lu, Fotouhi, F. and Aristar, present an ontology-bases linguistic multimedia annotation tool called OntoELAN. The tool features:
 the support for OWL ontologies;
 the management of language profiles that allow the user to choose a subset of ontological term for annotation;
 the management of ontological tires that can be annotated by language profile terms and therefore, corresponding ontological terms; and
 storing OntoELAN annotation documents in XML format based on multimedia and domain ontologies.

Chapter 7 titled   A Layered Model for Building Ontology Translation Systems   is authored by Corcho and Gσmez-Pιrez presents a model for building ontology translation systems between ontology languages and/or ontology tools.
Although there is a growing literature on ontology translation (and significant earlier literature on related topics of schema mapping and translation), the broader perspective of this chapter comes from considering four different layers: lexical, syntax, semantic, and pragmatic. This issue also proposes a method that guides in the process of developing ontology translation systems based on four main activities: feasibility study, analysis of source and target formats, design, and implementation of the translation system, and recommends the techniques to be used inside each of them.

Chapter 8 by Bry et al., is titled   Querying the Web Reconsidered: Design Principles for Versatile Web Query Language.   In this chapter the authors provide a milestone based on an experience with research, standardized query languages for the conventional Web, and the emerging query languages for the Semantic Web. They offer a reconsideration of design principles for Web and Semantic Web query languages. They present features of   versatile query languages that can cope up markups and representations used for traditional Web and Semantic Web. One key aspect they argue for is the support for incomplete data specifications (incomplete queries   ) and incomplete data selections (incomplete answers   ).

Part IV: Applications

This part of the book deal with applications of Semantic Web. Among the areas where we see more significant activities include health care, life sciences, and government. Consequently, majority of the chapters deal with health care.

Chapter 9 and the first chapter in the application part of this book is on   Semantic eBusiness

which is defined as   an approach to managing knowledge for coordination of eBusiness processes through the systematic application of Semantic Web technologies.   This chapter discusses the application of Semantic Web technologies to improve the current state of the art in the transparency of eBusiness processes. Applications discussed include supply chain management, e-marketplace, healthcare and e-government.

Chapter 10 titled   A Distributed Patient Identification Protocol Based on Control Numbers with Semantic Annotation   by Eichelberg, Aden, and Thoben describes a protocol that allows one to locate patient records for a given patient in a distributed environment without the need to keep a master patient index. The protocol combines cryptographic techniques with semantic annotation and mediation, and presents a simple, Web-Service-based access to clinical documents.

Chapter 11 by Shabo and Hughes addresses the family history information exchange services using HL7 Clinical Genomics Standard Specifications. The future vision of the article is the use of these services based on health standards over the Web such that various family history specialized applications will be able to use them to seamlessly exchange family history data.

The twelfth and the final chapter titled   Archetype-Based Semantic Interoperability of Web Service Messages in the Health Care Domain   by Bicer, Kilic, Dogac, and Laleci addresses how to semantically annotate Web Service messages through archetypes in order to provide Web-Service-based semantic interoperability in the health care domain. For this purpose, the Web Service messages are annotated with OWL representation of the archetypes, and by providing the ontology mapping between the archetypes through an OWL ontology mapping tool called OWLmt, the interoperability of the Web Service message instances are achieved.
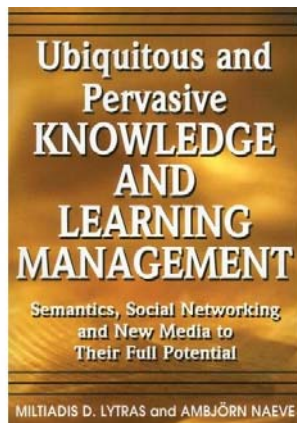
Ubiquitous And Pervasive Knowledge And Learning Management (Paperback)

by [Miltiadis D. Lytras](#) (Editor), [Ambjorn Naeve](#) (Editor)

http://www.amazon.com/Ubiquitous-Pervasive-Knowledge-Learning-Management/dp/1599044846/ref=sr_1_3/002-2773552-1404048?ie=UTF8&s=books&qid=1177326421&sr=1-3

http://www.igi-pub.com/books/details.asp?id=6496

Description

The importance of semantics has been recognized in different areas of data and information management, including better access, exchange, interoperability, integration, and analysis of data. Semantics of data is about associating meaning to data, understanding what data represents, and improving the value of data. **Ubiquitous and Pervasive Knowledge and Learning Management: Semantics, Social Networking and New Media to Their Full Potential** presents an alternative view to ubiquitous and pervasive knowledge, architectural frameworks, and methodological issues, and introduces some of the major techniques and tools developed in the domain of ontology building, analysis, and semantic Web. **Ubiquitous and Pervasive Knowledge and Learning Management: S
emantics, Social Networking and New Media to Their Full Potential** contributes to the revolutionary domain of semantic Web and information systems in the following aspects: vision, methodologies, tools, and applications.

Preface

The Ubiquitous and Pervasive Knowledge and Learning Management is the third book of our series. The initial goal was in the first year of the series to provide the state-of-the-art in Knowledge and Learning Management according to our perception for the key technological enablers that in the next years will influence critically the domain. In fact we wanted to deliver our strategic point of view for the new era of Knowledge and Learning Management.

We started by providing in Intelligent Learning Infrastructure for Knowledge Intensive organizations: A semantic web perspective the Semantic Web insights for Knowledge and Learning Management. One year after this publication the evolution of Semantic Web, its adoption in business and industry supports our argumentation that the future of Knowledge and Learning Management will have a critical Semantic Web dimension.

In the second book of the series, the Open Source for Knowledge and Learning Management: Strategies beyond tools, we wanted to concentrate on the evolution of the Free and Open Source Software (FOSS). Through an excellent combination of themes we wanted to initiate the scientific debate for the benefits of all the citizens and the governments of the knowledge society. Thanks to the contributing authors this second edition is really a reference book for the area.

The third book is the one you hold in your hands. Ubiquitous and Pervasive Knowledge and Learning Management: Semantics, social networking and new media to their full potential analyzes how mobile and wireless networks and ubiquitous and pervasive computing in general, support a new generation of knowledge and learning management systems aiming to provide services beyond time or geographical borders.

We are really happy. We feel that we really made a great job in this first year. Our edition strategy was

from the beginning to develop reference books for big audiences. It is quite strange to realize that especially in academia after a few years the people you can collaborate are the more competitive to you. This is why you have to open up your mind and to ask for collaborations by admitting your limited capacity to deliver more meaningful and greater results. We are really grateful to all the contributing authors of our editions because we share the same beliefs. In this journey we wanted to go beyond the typical scholar books flavor. We wanted to develop three books that give answers to significant questions but also set new starts for critical thinking for the deployment of knowledge and learning management for the common wealth. Having a huge network of collaborations and been part of big networks of excellence in Knowledge and Learning Management, Semantic Web, Open Source, Ubiquitous and Pervasive computing we tried to create synergies that the audiences of the books could exploit. In business strategy a key lesson is to be able to understand that the pair explore and exploit is a key adoption mechanism. In these three edited books we explored the state of the art for Knowledge and Learning Management as affected by three critical and in fashion technological evolutions: Semantic Web, Open Source, Ubiquitous and Pervasive computing. But in parallel we tried also to promote the discipline. In a parallel process we are more than happy that we undertook and delivered or currently we are developing, a great number of Special Issues in Prestigious Journals. We mention just a few of them.

Special issues planned to be published in 2007
1. IEEE Transactions on Knowledge and Data Engineering, Special Issue on Knowledge and Data Engineering in the Semantic Web Era (Guest Editors Gottfried Vossen, Miltiadis Lytras, Nick Koudas)
2. IEEE Transaction on Education, Special Issue on Open Source for Engineering Education: Pedagogical strategies beyond tools (Guest Editors: Miltiadis Lytras and Walt Scacchi)
3. IEEE Internet Computing: Special Issue on Semantic Based Knowledge Management Systems (Guest Editors: John Davies, Miltiadis Lytras and Amit Sheth)
4. Computers in Human Behavior, Special issue on Advances of Knowledge Management and the Semantic Web for Social Networks (Guest Editor: Miltiadis Lytras)
5. International Journal of Technology Management: Special issue Knowledge Management in the Health, Pharmaceutical and Clinical Sectors (Guest Editors: Miltiadis Lytras, Ambjorn Naeve, Constantine Makropoulos, Vipul Kashyap
6. Journal of Knowledge Management: Special issue on Competencies Management: Integrating Semantic Web and Enhanced Learning approaches for effective Knowledge Management (Guest Editors: Miltiadis Lytras, Miguel Angel Sicilia, Ambjorn Naeve
7. International Journal of Knowledge and Learning, Special Issue on: Knowledge Society: A roadmap for government consultation, (Guest Editors: Miltiadis Lytras, Thomas Devenport, Larry Prusak)
8. International Journal of Knowledge and Learning, Special Issue on: Knowledge and Learning Technologies for National Educational Systems: New Horizons for open minds (Guest Editors: David Jonassen, Albert Angehrn, Miltiadis Lytras, Ambjφrn Naeve)
9. International Journal of Knowledge and Learning, Special Issue on: Learning and Interacting in the Web: Social Networks and Social Software in the Web 2.0 (Guest Editors: Sheizaf Rafaeli, Stephen Downes, Miltiadis Lytras, Ambjorn Naeve)
10. International Journal of Knowledge and Learning, Special Issue on: Empirical Surveys on the Adoption of ICTs in Schools: From Wishful Thinking to Constructivist Learning and Beyond (Guest Editors: Griff Richards, Dragan Gasevic, Weihong Huang, Miltiadis Lytras)
11. International Journal of Teaching and Case Studies, Special Issue on: Information Systems: The new research agenda the emerging curriculum and the new teaching paradigm (Guest Editors: John Carroll, Miltiadis Lytras)
12. International Journal of Teaching and Case Studies, Special Issue on: Teaching Knowledge Management: Integration into Curriculum, Teaching Strategies and Teaching Case Studies (Guest Editors: Dov Te'eni, Nick Bontis, Miltiadis Lytras)
13. International Journal of Teaching and Case Studies, Special Issue on: Teaching Semantic Web: Integration with CS/IS curriculum and Teaching Case Studies (Guest Editors: Dov Te'eni, Nick Bontis, Miltiadis Lytras)
14. IJ of of Management in Education, Special Issue on: Exploiting Information and Communication Technologies for Effective Management of Education: Towards Interactive Managerial and Leadership Styles in Schools (Guest Editors: Miltiadis Lytras, Maria Mantziou)

Already published
1. Ambjφrn Naeve, Miltiadis Lytras, Wolfgang Nejdl, Nicolas Balacheff, Joseph Hardin, Advances of

Semantic Web for E-learning: Expanding learning frontiers, British Journal of Educational Technology, 37(3) 2006, http://www.blackwell-synergy.com/toc/bjet/37/3?ai=2ez&ui=18sh2&af=H
2. Lytras M., Iyer L., Tsakalidis A.,Exploiting Knowledge Management for Ubiquitous E-Government in the Semantic Web Era, Electronic Government, an International Journal (EG), 3 (1) 2006, http://www.inderscience.com/browse/index.php?journalID=72&year=2006&vol=3&issue=1
3. Gutiırrez de Mesa JA, Rodrvguez-Garcva D., Lytras M., "Ubiquitous Computing", in Upgrade, Digital journal of CEPIS (Council of European Professional Informatics Societies), Vol. VI, October 2005 issue, in English, http://www.upgrade-cepis.org/issues/2005/5/upgrade-vol-VI-5.html
4. Lytras M., Sicilia M.A., Kinshuk, Sampson D. , "Semantic and social aspects of learning in organizations", The Learning Organization Journal, 12(5) 2005 http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=Issue&containerId=22676
5. Lytras M., Sicilia M.A, Davies J., Kashyap V., "Digital libraries in the knowledge era: Knowledge management and Semantic Web technologies", Library Management:, 26(4/5) 2005, http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=Issue&containerId=22447
6. Sampson D., Lytras M., Wagner G. and Diaz P., "Ontologies and the Semantic Web for E-learning", Educational Technolgy and Society Journal, 7(4) 2004, http://www.ifets.info/issues.php?id=25
7. Lytras M., Naeve A., Pouloudi N., "Knowledge Management Technologies for E-learning", International Journal of Distance Educational Technologies, 3(2) 2005, http://www.idea-group.com/journals/toc.asp?ID=498&volume=Vol%2E+3%2C+No%2E+2

For the second year of the Knowledge and Learning Society series, we emphasize on the Applications Domains of Knowledge and Learning Management. In fact we want to provide our strategic point of view for the kind of applications that the technological enablers of Knowledge and Learning management as described in the first three editions will be realized. So for late 2007 have been scheduled 4 more editions:
   Knowledge Management Strategies: A Handbook of applied technologies (Editors: Miltiadis D. Lytras, Meir Russ, Ronald Maier and Ambjφrn Naeve)
   Technology Enhanced Learning: Best Practices (Editors: Weihong Huang, Dragan Gasevic, Miltiadis D. Lytras)
   Knowledge and Networks: A social networks perspective (Editors: Robert Tennyson, Patricia Ordonez De Pablos, Miltiadis D. Lytras)
   Semantic Web Engineering for the Knowledge Society (Editors: Jorge Cardoso, Miltiadis D. Lytras)

Currently we are preparing for the third year of the series targeting on specific pillars of the knowledge society. So we are thinking [not final decision] for 5 more editions in the following themes:
   Digital Culture and E-Tourism in the Knowledge Society
   European Union R&D strategy: Lesson learned from a knowledge management perspective
   Sustainable Development in the Knowledge Society
   Politics of the Knowledge Society
   E-Banking and E-finance
   Labor Policies in the Knowledge Society
   Decision making under uncertainly: A knowledge and Learning management perspective

We live in an era that we have modified our traditional assumptions for the provision of information technology supported services. In fact we live in an era where the information highways enabled by information networks provide unforeseen opportunities for knowledge dissemination. The traditional simplification of IT, namely the knowledge representation / knowledge retrieval, two-fold approach has gained new insights from the ubiquitous and pervasive computing.

We do believe that this edition contributes to the literature. We invite you to be part of the exciting knowledge and learning management community and we are really looking forward for your comments, ideas and suggestions for next editions.

August 2006
Miltiadis D. Lytras
Ambjorn Naeve
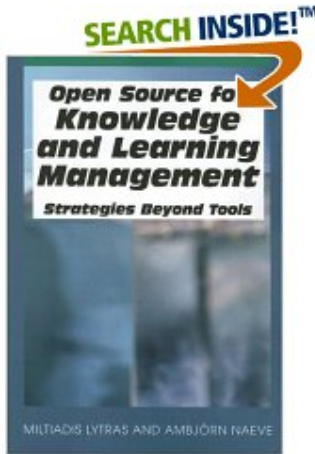
Open Source for Knowledge And Learning Management (Paperback)

by [Miltiadis Lytras](#) (Editor), [Ambjorn Naeve](#) (Editor)

http://www.igi-pub.com/books/details.asp?id=6490

http://www.amazon.com/Open-Source-Knowledge-Learning-Management/dp/1599041189/ref=pd_bbs_sr_1/002-2773552-1404048?ie=UTF8&s=books&qid=1177326421&sr=1-1

Product Description
"In the last years, knowledge and learning management have made a significant impact on the IT research community. Open Source for Knowledge and Learning Management: Strategies Beyond Tools presents learning and knowledge management from a point of view where the basic tools and applications are provided by open source technologies. Open Source for Knowledge and Learning Management: Strategies Beyond Tools explains an intense orientation to the critical issues of the open source paradigm: open source tools, applications, social networks, and knowledge sharing in open source communities. Open source technologies, tools, and applications are analyzed in the context of knowledge and learning, and this convergence formulates a challenging landscape for the deployment of information technology. "

Preface
Very few trips in the process of evolution in Information Technology can be compared with the one of Open Source Software. Millions of people worldwide are working collaboratively, exploiting each other's capacities and capabilities toward the achievement of significant milestones. Amazing networks of experts, knowledge communities, and multidisciplinary teams use innovative models of cooperation and collaboration and prove how knowledge and learning management can develop new unforeseen opportunities for sustainable development.

They develop excellent tools, applications and solutions for diverse problems and needs, and they motivate more and more professionals and open minds to contribute to the enhancement of their developments. If you try to comment on this exciting community then the first obvious conclusion is a single word: UNBELIEVABLE. Yes it is really unbelievable how these people are   breaking   the rules of the commercial market and how without any financial compensation they give their minds and souls for their   open software   project. When we decided to edit this book we knew from the beginning that this project would be a magnificent journey to the worlds of open knowledge and creative collaboration. It was not only because in the Knowledge Management Research Group, in the Royal Institute of Technology, (KMR Group, http://kmr.nada.kth.se) in the last years we have developed numerous Open Source-based tools for knowledge and learning management. It was mostly because the world of Open Source is full of brilliant ideas and shiny people who enjoy working for their tools and applications and sharing their knowledge and experiences. Traditionally most studies on Open source software have two alternative destinations and objectives. Either they discuss the success of Open Source structure and they try to transfer the findings (social networking, shared vision, shared mental models, etc) to business settings or they analyze the qualitative characteristics of Open Source software.

With more than 50 contributors this edition is really surprising. A wide range of issues are discussed with a clear focus. We want to communicate that Open Source for Knowledge and Learning Management sets a brand new context for value creation in Education, Government, Business, Academia, Research, Culture, Health, etc. Living in tough days where competition is more than global the joint efforts of Open Source Communities provide an alternative route for solutions to well known problems. From a Knowledge Society s point of view the bridging of the gap between knowledge creation and use requires the deployment of numerous infrastructures and social networks. The Society of Active Citizens is not a political verbalism. From a technological adoption perspective Open Source solutions to Knowledge and Learning management have an advantage. They demonstrate how effective the knowledge and learning management can be if there is proper inspiration and strategy.

Definitely Open Source Software and especially open source applications for Knowledge and Learning Management gain more attention from day to day. This edited book has a clear strategy and vision. We decided from the beginning to develop a book for the various segments of the society that are interested in Open Source Software approaches and their contextualization for knowledge and learning management. In fact we developed a book not for the few experts but for the society and we are really proud of this. This book has also a strategic fit within the Knowledge and Learning Society Book series of IGI. We decided for the first two years of the Series to concentrate on the emerging technologies and paradigm shifts that are challenging the development of the infrastructures of the knowledge and learning society. In fact three editions summarize this strategic objective.

Intelligent Learning Infrastructure for knowledge intensive organizations: A Semantic Web Perspective [more info: http://www.idea-group.com/books/details.asp?id=4925] .
Open Source for Knowledge and Learning Management: Strategies beyond tools
Ubiquitous and pervasive knowledge and learning management: Semantics, social networking and new media to their full potential [already in bookstores / finished in parallel with the current edition]

We do believe that these three editions cover the most fascinating aspects of the Knowledge and Learning management nowadays and can act as reference editions. Open Source is here to stay. Not just because it is in the top of the list of the research agenda for e-Europe and several similar political and government initiatives worldwide. But mostly because it demonstrates how collective intelligence can go beyond the capacities of isolated groups.
This edited book is about Open Source for Knowledge and Learning Management. But in fact is about realizing that when people are sharing same visions and working together then they can do great things.

Our vision goes a step further. We want a better world for all. And we are convinced that knowledge and learning is the TOTAL GLOBAL response to our competitive days. We encourage you to be part of this exciting journey.
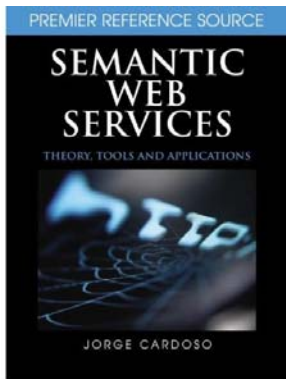
June 2006
Miltiadis D. Lytras
Ambjorn Naeve

Semantic Web Services: Theory, Tools and Applications (Hardcover)

by Jorge Cardoso (Editor)

http://www.amazon.com/Semantic-Web-Services-Theory-Applications/dp/159904045X/ref=sr_1_9/002-2773552-1404048?ie=UTF8&s=books&qid=1177328777&sr=1-9

http://dme.uma.pt/jcardoso/Books/IDEA-SWTTA/index.php?file=1

Product Description
The Semantic Web proposes the mark-up of content on the Web using formal ontologies that structure underlying data for the purpose of comprehensive and transportable machine understanding. Semantic Web Services: Theory, Tools and Applications brings contributions from researchers, scientists from both industry and academia, and representatives from different communities to study, understand, and explore the theory, tools, and applications of the semantic Web. Semantic Web Services: Theory, Tools and Applications binds computing involving the Semantic Web, ontologies, knowledge management, Web services, and Web processes into one fully comprehensive resource, serving as the platform for exchange of both practical technologies and far reaching research.

PREFACE

What is this book about?

The current World Wide Web is syntactic and the content itself is only readable by humans. The semantic Web proposes the mark-up of content on the Web using formal ontologies that structure underlying data for the purpose of comprehensive machine understanding. Currently most Web resources can only be found and queried by syntactical search engines. One of the goals of the semantic Web is to enable reasoning about data entities on different Web pages or Web resources. The semantic Web is an extension of the current Web in which information is given well-defined meaning, enabling computers and people to work in co-operation. Along with the semantic Web, systems and infrastructures are currently being developed to support Web services. The main idea is to encapsulate an organization's functionality within an appropriate interface and advertise it as Web services. While in some cases Web services may be utilized in an isolated form, it is normal to expect Web services to be integrated as part of Web processes. There is a growing consensus that Web services alone will not be sufficient to develop valuable Web processes due the degree of heterogeneity, autonomy, and distribution of the Web. Several researchers agree that it is essential for Web services to be machine understandable in order to support all the phases of the lifecycle of Web processes. It is therefore indispensable to interrelate and associate two of the hottest R&D and technology areas currently associated with the Web – Web services and the Semantic Web. The study of the application of semantics to each of the steps in the Semantic Web Process lifecycle can help address critical issues in reuse, integration and scalability.

Why did I put a lot of effort in creating this book?

I started using semantic Web technologies in 2001 right after Tim Berners-Lee, James Hendler and Ora Lassila published their article entitled "The Semantic Web" in the May issue of Scientific American. This

seminal article described some of the future potential of what was called the Semantic Web, the impact of computers understanding and interpreting semantic information, and how searches could be dramatically improved when using semantic metadata. Two years ago, in 2004, I started planning to teach a course on Semantic Web at the University of Madeira (Portugal). When looking for material and textbooks on the topic for my students, I realized that there was only a hand full of good books discussing the concepts associated with the semantic Web. But none aggregated in one place the theory, the tools, and the applications of the semantic Web. So, I decided to write this comprehensive and handy book for students, teachers, and researchers. The major goal of this book is to bring contributions from researchers, scientists from both industry and academics, and representatives from different communities together to study, understand, and explore the theory, tools and applications of the semantic Web. It brings together computing that deal with the semantic Web, ontologies, knowledge management and engineering, Web services, and Web processes. It serves as the platform for exchange of both practical technologies and far reaching research.

Organization of the book

This book is divided into thirteen chapters and it is organized in a manner that allows a gradual progression of the main subject toward more advanced topics. The first five chapters cover the logic and engineering approaches needed to develop ontologies and bring into play semantics. Chapters 7 and 8 introduce two technological areas, Web services and Web processes, which have received a considerable amount of attention and focus from the semantic Web community. The remaining chapters, chapters 9, 10, 11, 12, and 13, describe in detail how semantics are being used to annotate Web services, discover Web services, and deploy semantic search engines.

Chapter 1 introduces the concepts of syntactic and semantic Web. The World Wide Web composed of HTML documents can be characterized as a syntactic or visual Web since documents are meant only to be displayed by Web browsers. In the visual Web, machines cannot understand the meaning of the information present in HTML pages, since they are mainly made up of ASCII codes and images. The visual Web prevents computers from automating information processing, integration, and interoperability. Currently the Web is undergoing evolution and different approaches are being sought for solutions to adding semantics to Web pages and resources in general. Due to the widespread importance of integration and interoperability for intra- and inter-business processes, the research community has already developed semantic standards such as the Resource Description Framework (RDF), RDF Schema (RDFS) and the Web Ontology Language (OWL). RDF, RDFS and OWL standards enable the Web to be a global infrastructure for sharing both documents and data, which make searching and reusing information easier and more reliable as well. RDF is a standard for creating descriptions of information, especially information available on the World Wide Web. What XML is for syntax, RDF is for semantics. The latter provides a clear set of rules for providing simple descriptive information. OWL provides a language for defining structured Web-based ontologies which allows a richer integration and interoperability of data among communities and domains. Even though the Semantic Web is still in its infancy, there are already applications and tools that use this conceptual approach to build semantic Web based systems. Therefore, in this chapter, we present the state of the art of the applications that use semantics and ontologies. We describe various applications ranging from the use of semantic Web services, semantic integration of tourism information sources, and semantic digital libraries to the development of bioinformatics ontologies.

Chapter 2 introduces a number of formal logical languages which form the backbone of the Semantic Web. They are used for the representation of both ontologies and rules. The basis for all languages presented in this chapter is the classical First-Order Logic. Description Logics is a family of languages which represent subsets of first-order logic. Expressive description logic languages form the basis for popular ontology languages on the Semantic Web. Logic programming is based on a subset of first-order logic, namely Horn Logic, but uses a slightly different semantics and can be extended with non-monotonic negation. Many Semantic Web reasoners are based on logic programming principles and rule languages for the Semantic Web based on logic programming are an ongoing discussion. Frame Logic allows object-oriented style (frame-based) modeling in a logical language. RuleML is an XML-based syntax consisting of different sub-languages for the exchange of specifications in different logical languages over the Web.

In Computer Science, ontologies are defined as formal, explicit specifications of shared conceptualizations. Their origin in this discipline can be referred back to 1991, in the context of the DARPA Knowledge Sharing Effort. Since then, considerable progress has been made and ontologies are now considered as a commodity that can be used for the development of a large number of applications in different fields, such as knowledge management, natural language processing, e-commerce, intelligent integration information, information retrieval, database design and integration, bio-informatics, education, etc. Ontological Engineering is defined as the set of activities that concern the ontology development process, the ontology life cycle, the principles, methods and methodologies for building ontologies, and the tool suites and languages that support them. In **chapter 3** we provide an overview of all these activities, describing the current trends, issues and problems. More specifically, we cover the following aspects of Ontological Engineering: a) Methods and methodologies for ontology development. We cover both comprehensive methodologies that give support to a large number of tasks of the ontology development process and methods and techniques that focus on specific activities of this process, focusing on: ontology learning, ontology alignment and merge, ontology evolution and versioning, and ontology evaluation; b) Tools for ontology development. We describe the most relevant ontology development tools, which give support to most of the ontology development tasks (especially formalization and implementation) and tools that have been created for specific tasks, such as the ones identified before: learning, alignment and merge, evolution and versioning and evaluation, and c) finally, we describe the languages that can be used in the context of the Semantic Web. This includes W3C recommendations, such as RDF, RDF Schema and OWL, and emerging languages, such as WSML.

Chapter 4 gives an overview of some editing tools for ontology construction. At the present time, the development of a project, like the one of building an ontology demands the use of a software tool. Therefore, it is given a synopsis of the tools that the authors consider more relevant. The tools we chose were: Protégé, OntoEdit, DOE, IsaViz, Ontolingua, Altova Semantic Works, OilEd, WebODE, pOWL and SWOOP. We started by describing each tool and identifying which tools support a methodology or other important features for ontology construction (versioning, graph view. Most of the activities of ontology development can be achieved by using these tools. Projects often involve solutions using numerous ontologies from external sources. Sometimes there is also the need to use existing and newly developed in-house ontologies. By this reason it is important that the editing tools for ontology construction promote interoperability. It is possible to identify some general distinctive features for each software tool. Protégé is used for domain modelling and for building knowledge-base systems and promotes interoperability. DOE allows users to build ontologies according to the methodology proposed by Bruno Bachimont. Ontolingua was built to ease the development of ontologies with a form-based Web interface. Altova SemanticWorks is a commercial visual editor that has an intuitive visual interface and drag-and-drop functionalities. OilEd's interface was strongly influenced by Stanford's Protégé toolkit. This editor does not provide a full ontology development environment. However, allows users to build ontologies and to check ontologies for consistency by using FaCT reasoner. WebODE is a Web application. This editor supports ontology edition, navigation, documentation, merge, reasoning and other activities involved in the ontology development process. pOWL is capable of supporting parsing, storing, querying, manipulation, versioning, serving and serialization of RDFS and OWL knowledge bases in a collaborative Web enabled environment. SWOOP is a Web-based OWL ontology editor and browser. SWOOP contains OWL validation and offers various OWL presentation syntax views. It has reasoning support and provides a multiple ontology environment. There are several available ontology tools that can help to build an ontology. Some tools only support common edition and browsing functionalities. Other tools provide ontology documentation, ontology import/export for different formats, graphical view of ontologies, ontology libraries and attached inference engines. This way, if you are starting out on an ontology project, the initial step is to find a suitable ontology editor. By reading this chapter it is possible to have an overview of some of the available tools nowadays.

The aim of **chapter 5** is to give a general introduction to some of the ontology languages that play a prominent role on the Semantic Web. In particular, it will explain the role of ontologies on the Web, review the current standards of RDFS and OWL, and discuss open issues for further developments. In the context of the Web, ontologies can be used to formulate a shared understanding of a domain in order deal with differences in terminology of users, communities, disciplines and languages as it appears in texts. One of the goals of the Semantic Web initiative is to advance the state of the current Web through the use of semantics. More specifically, it proposes to use semantic annotations to describe the meaning of certain parts of Web information and, increasingly, the meaning of message elements employed by Web Services.

For example, the Web site of a hotel could be suitably annotated to distinguish between the hotel name, location, category, number of rooms, available services etc. Such meta-data could facilitate the automated processing of the information on the Web site, thus making it accessible to machines and not primarily to human users, as it is the case today. The current and most prominent Web standard for semantic annotations is RDF and RDF Schema, and its extension OWL.

In **chapter 6** we describe and explain how reasoning can be carried out in on the Semantic Web. Reasoning is the process needed for using logic. Efficiently performing this process is a prerequisite for using logic to present information in a declarative way and to construct models of reality. In this chapter we describe both what the reasoning over the formal semantics of description logic amounts to and to, and illustrate how formal reasoning can (and cannot!) be used for understanding real world semantics given a good formal model of the situation. We first describe how the formal semantics of description logic can be understood in terms of completing oriented labeled graphs. In other words we interpret the formal semantics of description logic as rules for inferring implied arrows in a dots and arrows diagram. We give an essentially complete "graphical" overview of OWL that may be used as an introduction to the semantics of this language. We then touch on the algorithmic complexity of this graph completion problem giving a simple version of the tableau algorithm, and give pointers to existing implementations of OWL reasoners. The second part deals with semantics as the relation between a formal model and reality. We give an extended example building up a small toy ontology of concepts useful for describing buildings, their physical layout and physical objects such as wireless routers and printers in the turtle notation for OWL. We then describe a (imaginary) building with routers in these terms. We explain how such a model can help in determining the location of resources given an idealized wireless device that is in or out of range of a router. We emphasize how different assumptions on the way routers and buildings work are formalized and made explicit in the formal semantics of the logical model. In particular we explain the sharp distinction between knowing some facts and knowing all facts (open, versus closed world assumption). The example also illustrates the fact that reasoning is no magical substitute for insufficient data. This section should be helpful when using ontologies and incomplete real world knowledge in applications.

Chapter 7 gives an introduction to Web service technology. Web services are emerging technologies that allow programmatic access to resources on the internet. Web services provide a means to create distributed systems which are loosely couple, meaning that the interaction between the client and service is not dependent on one having any knowledge of the other. This type of interaction between components is defined formally by the Service Oriented Architecture (SOA). The backbone of Web Services is XML. Extensible Markup Language (XML) is a platform independent data representation which allows the flexibility that web services need to fulfill their promise. Simple Object Access Protocol, or SOAP, is the XML-based protocol that governs the communication between a service and the client. It provides a platform and programming language independent way for web services to exchange messages. Web Service Description Language (WSDL) is an XML-based language for describing a service. It describes all the information needed to advertise and invoke a web service. UDDI is a standard for storing WSDL files as a registry so that they can be discovered by clients. There are other standards for describing policy, security, reliability, and transactions of Web services that are described in the chapter. With all this power and flexibility, Web services are fairly easy to build. Standard software engineering practices are still valid with this new technology though tool support is making some of the steps trivial. Initially, we design the service as a UML class diagram. This diagram can then be translated (either by hand or by tools like Posiden) to a Java interface. This class can become a web service by adding some annotations to the Java code that will be used to create the WSDL file for the service. At this point, we need only to implement the business logic of the service to have a system that is capable of performing the needed tasks. Next, the service is deployed on an application server, tested for access and logic correctness, and published to a registry so that it can be discovered by clients.

In **chapter 8** we introduce and provide an overview of the Business Process Execution Language for Web Services (known as BPEL4WS or BPEL for short), an emerging standard for specifying the behavior of Web services at different levels of details using business process modeling constructs. BPEL represents a convergence between Web services and business process technology. It defines a model and a grammar for describing the behavior of a business process based on interactions between the process and its partners. Being supported by vendors such as IBM and Microsoft, BPEL is positioned as the "process language of the Internet". The chapter firstly introduces BPEL by illustrating its key concepts and the usage of its constructs to define service-oriented processes and to model business protocols between

interacting Web services. A BPEL process is composed of activities that can be combined through structured operators and related through control links. In addition to the main process flow, BPEL provides event handling, fault handling and compensation capabilities. In the long-running business processes, BPEL applies correlation mechanism to route messages to the correct process instance. On the other hand, BPEL is layered on top of several XML specifications such as WSDL, XML Schema and XPath. WSDL message types and XML Schema type definitions provide the data model used in BPEL processes, and XPath provides support for data manipulation. All external resources and partners are represented as WSDL services. Next, to further illustrate the BPEL constructs introduced above, a comprehensive working example of a BPEL process is given, which covers the process definition, XML schema definition, WSDL document definition, and the process execution over a popular BPEL-compliant engine. Since the BPEL specification defines only the kernel of BPEL, extensions are allowed to be made in separate documentations. The chapter reviews some perceived limitations of BPEL and extensions that have been proposed by industry vendors to address these limitations. Finally, for an advanced discussion, the chapter considers the possibility of applying formal methods and Semantic Web technology to support the rigorous development of service-oriented processes using BPEL.

Web Services show promise to address the needs of application integration by providing a standards-based framework for exchanging information dynamically between applications. Industry efforts to standardize Web service description, discovery and invocation have led to standards such as WSDL, UDDI, and SOAP respectively. These industry standards, in their current form, are designed to represent information about the interfaces of services, how they are deployed, and how to invoke them, but are limited in their ability to express the capabilities and requirements of services. This lack of semantic representation capabilities leaves the promise of automatic integration of applications written to Web services standards unfulfilled. To address this, the semantic Web community has introduced semantic Web services. Semantic Web Services are the main topic of **chapter 9**. By encoding the requirements and capabilities of Web services in an unambiguous and machine-interpretable form semantics make the automatic discovery, composition and integration of software components possible. This chapter introduces semantic Web services as a means to achieve this vision. It presents an overview of semantic Web services, their representation mechanisms, related work and use cases. Specifically, the chapter contrasts various semantic Web service representation mechanisms such as OWL-S, WSMO and WSDL-S and presents an overview of the research work in the area of Web service discovery, and composition that use these representation mechanisms.

Web services are software components that are accessible as web resources in order to be reused by other web services or software. Hence, they function as middleware connecting different parties such as companies or organizations distributed over the Web. In **chapter 10**, we consider the process of provisioning data about a web service to constitute a specification of the web service. At this point, the question arises how a machine may attribute machine-understandable meaning to this metadata. Therefore, we argue for the use of ontologies for giving a formal semantics to web service annotations, i.e. we argue in favor of semantic web service annotations. A web service ontology defines general concepts such as service or operation as well as relations that exist between such concepts. The metadata describing a web service can instantiate concepts of the ontology. This connection supports web service developers to understand and compare the metadata of different services described by the same or a similar ontology. Consequently, ontology-based web service annotation leverages the use, reuse and verification of web services. The process of semantic web service annotation in general requires input from multiple sources, i.e. legacy descriptions, as well as a labor-intensive modeling effort. Information about a web service can be gathered e.g. from the source code of a service (if annotation is done by a service provider), from the API documentation and description, from the overall textual documentation of a web service or from descriptions in WS* standards. Depending on the structuredness of these sources, semantic annotations may (have to) be provided manually (e.g. if full text is the input), semi-automatically (e.g. for some WS* descriptions) or fully automatically (e.g., if Java interfaces constitute the input). Hence, a semantic description of the signature of a web service may be provided by automatic means, while the functionality of web service operations or pre- and post-conditions of a web service operation may only be modeled manually. Benefits of semantic specifications of web services include a common framework that integrates semantic descriptions of many relevant web service properties. It is the purpose of this chapter to explain the conceptual gap between legacy descriptions and semantic specifications and to indicate how this gap is to be bridged.

Chapter 11 deals with methods, algorithms and tools for semantic Web Service discovery. Semantic Web has revolutionized, among other things, the implementation of Web Services lifecycle. The core phases of this lifecycle, such as service discovery and composition can be performed more effectively through the exploitation of the semantics that annotate the service descriptions. This chapter focuses on the phase of Discovery due to its central role in every, service-oriented architecture. Hence, it surveys existing approaches to Semantic Web Service (SWS) Discovery. Such discovery process is expected to substitute existing keyword-based solutions (e.g., UDDI) in the near future, in order to overcome their limitations. First, the architectural components of a SWS Discovery ecosystem, along with potential deployment scenarios, are discussed. Subsequently, a wide range of algorithms and tools that have been proposed for the realization of SWS Discovery are presented. The presentation of the various approaches aims at outlining the key characteristics of each proposed solution, without delving into technology-dependent details (e.g., service description languages). The descriptions of the tools included in this chapter provide a starting point for further experimentation by the reader. In this respect, a brief tutorial for a certain tool is provided as an appendix. Finally, key challenges and open issues, not addressed by current systems, are identified (e.g., evaluation of service retrieval, mediation and interoperability issues). The ultimate purpose of this chapter is to update the reader on the recent developments in this area of the distributed systems domain and provide the required background knowledge and stimuli for further research and experimentation in semantics-based service discovery.

Taking an abstract perspective, Web Services can be considered as complex resources on the Web, i.e. resources that might have more complex structure and properties than conventional data that is shared on the Web. Recently, the Web Service Modeling Ontology (WSMO) has been developed to provide a conceptual framework for semantically describing Web Services and their specific properties in detail. WSMO represents a promising and rather general framework for Semantic Web Service description and is currently applied in various European projects in the area of Semantic Web Services and Grid Computing. **In chapter 12**, we discuss how Web Service discovery can be achieved within the WSMO Framework. First, we motivate Semantic Web Services and the idea of applying semantics to Web Services. We give a brief high-level overview of the Web Service Modeling Ontology and present the main underlying principles. We discuss the distinction between two notions that are often intermixed when talking about Semantic Web Services and thus provide a proper conceptual grounding for our framework, namely we strictly distinguish between Services and Web Services. Consequently, we distinguish between Service Discovery and Web Service Discovery, whereas only the latter is then considered in detail in the chapter. Since in open environments like the Web, the assumption of homogeneous vocabularies and descriptions breaks, we briefly consider mediation and discuss its role in Service and Web Service Discovery. Hereby, we try to identify requirements on the discovery process and respective semantic descriptions which allow facing heterogeneity and scalability at the same time. We then present a layered model of successively more detailed and precise perspectives on Web Services and consider Web Service descriptions on each of them. For the two most fine-grained levels, we then discuss how to detect semantic matches between requested and provided functionalities. Based on our model, we are able to integrate and extend matching notions that have been known in the area already. First, we consider Web Services essentially as concepts in an ontology, where required inputs and the condition under which a requested service actually can be delivered is neglected. Then, we move forward to a more detailed level of description, where inputs and respective preconditions for service delivery are no longer ignored. We show how to adapt and extend the simpler model and matching notions from before to adequately address richer semantic descriptions on this level. The various levels of descriptions are meant to support a wide range of scenarios that can appear in practical applications, requiring different levels of details in the description of Web Services and client requests, as well as different precision and performance.

Chapter 13 focuses on semantic search engines and data integration systems. As the use of the World Wide Web has become increasingly widespread, the business of commercial search engines has become a vital and lucrative part of the Web. Search engines are common place tools for virtually every user of the Internet; and companies, such as Google and Yahoo!, have become household names. Semantic Search Engines try to augment and improve traditional Web Search Engines by using not just words, but concepts and logical relationships. We believe that data integration systems, domain ontologies and schema based peer-to-peer architectures are good ingredients for developing Semantic Search Engines with good performance. Data integration is the problem of combining data residing at different autonomous sources, and providing the user with a unified view of these data; the problem of designing Data Integration Systems is important in current real world applications, and is characterized by a number

of issues that are interesting from a theoretical point of view. Schema based peer-to-peer networks are a new class of peer-to-peer networks, combining approaches from peer-to-peer as well as from the data integration and semantic Web research areas. Such networks build upon peers that use metadata (ontologies) to describe their contents and semantic mappings among concepts of different peers' ontologies. In this chapter, we will provide empirical evidence for our hypothesis. More precisely, we will describe two projects, SEWASIE and WISDOM, which rely on these architectural features and developed key semantic search functionalities; they both exploit the MOMIS (www.dbgroup.unimo.it/Momis/) data integration system. The first, SEWASIE (www.sewasie.org), rely on a two-level ontology architecture: the low level, called the peer level contains a data integration system; the second one, called super-peer level integrates peers with semantically related content (i.e. related to the same domain). The second, WISDOM (www.dbgroup.unimo.it/wisdom/), is based on an overlay network of semantic peers: each peer contains a data integration system. The cardinal idea of the project is to develop a framework that supports a flexible yet efficient integration of the semantic content.

FOREWARD

Miltiadis D. Lytras, Research Academic Computer Technology Institute, Computer Engineering and Informatics Department, University of Patras, Greece

Semantic Web is here to stay!!! This is not really a marketing campaign logo, but it is a truth that every year is becoming more and more relevant to the daily life of business world, industry and society.

I don't know how it happened but the last years, through our activities in the Special Interest Group on Semantic Web and Information Systems in the Association for Information Systems (http://www.sigsemis.org) I had the opportunity to contact and collaborate with several key people for the evolution of the SW as well as many leaders in different domains trying to understand their attitude for Semantic Web [1]. I feel many times that my background in Informatics and Management Science helps me to go beyond the traditional exhaustive technical discussions on Semantic Web and to see the Forest. This is full of fertile grounds, fruits for the people who will put the required tough efforts for the cultivation of the fields and many more. And of course much more value for the early adopters.

Before couple years I had an Interview with Robert Zmud, Professor and Michael F. Price Chair in MIS, University of Oklahoma. Given his legendary work in the Adoption of Technologies in business/organizational contexts I asked him in a way how can we promote Semantic Web to Business World. His answer influenced all of my Semantic Web activities till then. I am copying here:

"As with all adoption situations, this is an information and communication problem. One needs to segment the base of potential adopters (both in the IS community and in the business community) and then develop communication programs to inform each distinct segment of, first, the existence of the innovation (know-what), then the nature of the innovation (know-how), and finally why this innovation would be useful to them (know-why). These adopter segments are likely to be very different from each other. Each will have a different likelihood of adoption and will likely require that a somewhat unique communication strategy be devised and directed toward the segment"

So this is why, Jorge's current edition and planned ones give an answer to the problem of many people. Semantic Web is discussed in the triptych know-what, know-how and know-why and the editing strategy of the book boosts the excellent quality of well known contributors. It's really amazing how Jorge made it and so many academics and practitioners collaboratively worked for this edition.

Robert Zmud concluded his answer with one more statement which is worthy to mention it.

"My advice thus, is to segment the adopter population, identify those communities with the highest potential for adoption, develop a targeted communication strategy, and then develop the relationships

necessary to deliver the communication strategy. Hope this helps".

This answer really justifies why you are fortunate to read this book. Semantics are evident everywhere in every aspect of business life and society - Sheth (2005)[2]. In this sense, "Semantic Web: Theory, Tools and Applications" provides a critical step forward in the understanding of the state of the art of the Semantic Web.

I am convinced that the next years Semantic Web will drive a new era of Real World Applications. With its transparent capacity to support every business domain, the milestone of the Knowledge Society will be for sure a Semantic Web Primer. Within this context Computer Science and Information Systems Experts, have to reconsider their role. They must be able to transform business requirements to systems and solutions that go beyond traditional analysis and design. This is why a lot of effort must be paid to the introduction of Semantic Web in Computer Science and Information Systems Curricula. "Semantic Web: Theory, Tools and Applications" can be used as an excellent text book for the relevant themes.

As a concluding remark I would like just to share with you some thoughts. There is always a questioning for the pace of the change, and the current stage in the evolution of the SW. I do believe that there is no need to make predictions for the future. The only thing we need is strategy and hard work. Educating people in Semantic Web in Computer Science Departments and in Business Schools means making them realize that Semantics, Logic, Reasoning, and Trust are just our mankind characteristics that we must bring to our "Electronic Words". If we don't support them then our Virtual Information World looks like a giant with glass legs. This is why I like the engineering approach of Jorge in this edition. We must be able to support the Giant with concrete Computer Engineering in order to make sustainable solutions for real world problems. The fine grain of Strategy and Computer science will lead Semantic Web to a maturity level for unforeseen value diffusion.

My invitation is to be part of this exciting just started journey and to keep in mind that the people who dedicate their lives in the promotion of disciplines for the common wealth from time to time need encouragement and support because their intellectual work is not valued in financial terms. This is why I want to express my deepest appreciation and respect for Jorge Cardoso as scientist and man, and to wish him to keep rocking in Semantic Web.

Dear Jorge you did once again great job. And dear Readers, from all over the world you did the best choice. Let us open together the Semantic Web to the Society. And why not lets put together the new milestones towards a better world for all through the adoption of leading edge technologies in humanistic visions.

Athens 30/7/2006,
Miltiadis D. Lytras

[1]. Lytras M. (2005) "Semantic Web and Information Systems: An Agenda Based on Discourse with Community Leaders", in International Journal on Semantic Web and Information Systems, Inaugural Issue, 1(1), pp: i-xii
[2]. Sheth, A. Ramakrishnan C., Thomas C., (2005). Semantics for the Semantic Web: The Implicit, the Formal and the Powerful. Intl. Journal on Semantic Web and Information Systems, Inaugural Issue, 1(1), 1-18.

REGULAR COLUMNS

All our columns will be published in the Double 4 (1&2) 2007 Issue on 15th June 2007.

Semantic Search Technology Technologies by Dr. Peter Alesso

H. Peter Alesso,
h.alesso@comcast.net
Computer Science Department,
Ohlone College, CA

BOOKS:

- "Building Semantic Web Services," A.K. Peters Ltd., 2004.
- "The Intelligent Wireless Web," Addison-Wesley, Dec. 2001.
- "e-Video: Producing Internet Video as Broadband Technologies Converge," Addison-Wesley, July 2000.

SOFTWARE PUBLICATIONS:

- "Wealth Insurance," Compton's NewMedia, Inc., 1989.
- "Engineering Design," VSL, 1994.
- "Semantic Web Author," A. K. Peters, Ltd., 2004.

Column Description

SCOPE
Articles and news covering explanations, examples, and advances in emerging semantic search applications including: semantic search technology, latent semantic indexing, ontology matching, semantic search agents and semantic data clustering. In addition, we will include current development, algorithms, inference applications and development software tools.

DESCRIPTION

Search engine's, such as, Google with its 300 million hits per day and over 4 billion indexed Web pages are a vital part of today's World Wide Web. The prevaling attitude of surfers on the Web is: When you have a question - fire up Google.

Current commercial search technologies has been based upon two approaches: human directed search and automated search. In general, human directed search engine technology utilizes a database of keyword concepts and references. A great deal of existing search engine technology uses keyword searches to rank pages, but this often leads to irrelevant and spurious results. Some specific types of human-directed search engines, such as Yahoo!, use topic hierarchies to help to narrow the search and make search results more

relevant. These topic hierarchies are human created. Because of this, they are costly to produce and maintain in terms of time, and are subsequently not updated as often as the fully automated systems.

The automated form of Web search technology is based on the Web crawler, spider, robot (bot), or agent which follows HTTP links from site to site and accumulates information about Web pages. This agent-based search technology accumulated data automatically and is continuously updating information.

As Semantic technologies become more powerful, it is reasonable to ask for better search capabilities which can truly respond to detailed requests reducing the amount of irrelevant results. A semantic search engine seeks to find documents that have similar 'concepts' not just similar 'words'. However, most semantic-based search engines suffer performance problems from the scale of a very large semantic network. In order for the semantic search to be effective in finding responsive results, the network must contain a great deal of relevant information. At the same time, large network must process many paths to a solution.

In this column, we will explore semantic search applications including: semantic search technology, latent semantic indexing, ontology matching, semantic search agents and semantic data clustering. In addition, we will include current development, algorithms, inference applications and development software tools.

AUDIENCE
Web Service developers, Web site developers, Semantic Web specialists, and search technology researchers will all benefit from this exposition of semantic search technology supporting automatic Web services.

Semantic Web Technologies by Dr. Jessica Chen Burger

Yun-Heh (Jessica) Chen-Burger
Room 4.08, Appleton Tower
AIAI, CISA, Informatics
The University of Edinburgh, UK
+44-131- 650-2756 (Office)
jessicac@inf.ed.ac.uk

An Over-Arching Description for the
Semantic Web Technologies Column
For SIGSEMIS: Semantic Web and Information Systems

http://www.sigsemis.org/columns/technologiesColumn/

For this bi-monthly Semantic Web Technologies Column, I plan to cover various advanced technologies that is relevant to the field of semantic web technologies.

Research topics cover but not limited to:

- Knowledge Management techniques;
- Advanced Knowledge technologies;
- Grid Computing technologies, esp. Semantic Grid technologies;
- Enterprise Modelling and its applications in assisting the development of semantic web and knowledge management;
- Verification and validation techniques that is applicable to semantic web/rich technologies;
- Collaborative systems and their cooperative operations based on semantic web/rich technologies;
- Workflow systems that understand, manipulate and execute semantics rich information;
- Web services as well as over-arching architecture that holds different web services together;
- Advancements in process modelling and workflow technologies, esp. their relations to the semantic web;
- Applications based on advanced semantic web/rich technologies, e.g. advancements in the bio-informatics;
- Development and applications of ontology technologies; e.g. mapping, evolution, negotiation and the use of ontologies;
- Advanced information technologies, e.g. information extraction, knowledge capture, natural language generation/presentation based on information captured using IE, etc.
- Knowledge portal applications;
- Evaluation and critique of current semantic web/rich technologies and their applications;
- A combination of some of the above technologies.

While some/most columns will be entirely contributed on my own, guest authors may be sometimes invited to contribute to the content of the column, when appropriate. Guest authors may also be different each time. This is an attempt to provide in-depth knowledge to the column as well as broaden its views. In order to acknowledge their efforts, their name may appear as a co-author, when appropriate. The responsibilities for the make-up of the column, however, entire rest on myself.

Methodologies for the Semantic Web Column by Dr. Matteo Cristani

Matteo Cristani is Assistant Professor in the University of Verona (Italy), Department of Computer Science. He was born in Verona (Italy) in 1966. He graduated in the University of Milan in 1991 and obtained a PhD from the University of Padova in 1995. He was employed as post-doctoral research associate in the University of Padova. He is employed by the University of Verona since 1997.

His first research interest has been Natural Language Processing, and then Temporal Reasoning, the theme on which he did the doctoral dissertation. His current main research interest is Artificial Intelligence, in particular Ontology on the Web, Spatial reasoning and Aesthetic Knowledge Representation. He has published in outstandingly International Conferences and Journals in the recent years, like the European Conference on Artificial Intelligence, the International Conference on Principles of Knowledge Representation and Reasoning, the International Joint Conference on Artificial Intelligence, the Journal of Visual Languages and Computing, Artificial Intelligence, the Journal of Artificial Intelligence Research, Spatial Cognition and Computation. Recently he developed an interest in the theme of Ontology methodology, from a Knowledge Management point of view. This has been delivered as a coordinated industrial project. He currently leads a long-term research activity in cooperation with industry about Ontology in Services and Industrial Production, and has an established long-term cooperation with outstanding research centres, including the University of Leeds, IRIT-Toulouse, Cambridge University, Napier University. He also published in I-KNOW 2004, and the Workshop on Terminology, Ontology and Knowledge Representation.

ABOUT THE COLUMN

The column will discuss and present the up-to-date situation of outstanding international research about Knowledge Management and Ontology Engineering as applied to the continuously growing field of Semantic Web, with a specific attention the applications to Information Systems.

There will appear alternatively the following types of articles:

1) *Research reviews*. This papers will briefly discuss a theme of interest of the communities of Semantic Web, Artificial Intelligence, Information Systems, Web Languages, Knowledge Management to which researchers have paid attention in the recent past. The papers will only review those investigations that have proven to be outstanding in terms of internationally recognised quality, such as international conferences, international journals, and books published by recognised international scientific publishers. The major concern of these papers will be to provide affordable up-to-date state-of-the-art summaries of major themes in the field of Methodologies for the Semantic Web. The columnist is responsible for the retrieval of the material and will be also providing the actual summary;

2) *Recent achievements updates*. This papers will introduce a new theme on which well-known authors have recently achieved results that still do not appear in outstanding forums, such as research reports, workshops, or other minor publications. The major concern of these papers will be to report from promising minor events and minor publications in order to provide a forum for new ideas to be discussed within the community;

3) *Public debate reports.* The columnist will report public debates commenced on the major mailing lists on the topic, like DBWORLD, SEWORLD and, obviously, Semantic Web on yahoo. These reports will

focus both on self-arising debates, like the now well famous one about the achievements of the Semantic Web, but only about the selected topic. The public debates reported will be either appearing in some of those mailing lists, or being reported to the columnist, or provoked directly on such lists by the columnist;

4) *Guest papers.* Outstanding guests will be occasionally invited to provide valuable opinions on the achievements obtained in the field.

The themes of the column are fundamentally four:

- *Distributed ontology systems.* We focus on the theme of Knowledge Management in a distributed environment;

- *Web ontologies.* Ontologies which can be shared on the Web;

- *Ontological Engineering.* Methods for building ontologies;

- *Methodologies for Semantic Web Technologies.* Methods for building ontologies on the web by means of knowledge-based languages, like OWL.

The column will briefly review the current state-of-the-art at least twice a year.

Semantic Web Research Community: A column dedicated to presentation of Research Groups Worldwide

By Gerd Wagner and Lina Zhou

1. Semantic Web Group at ILRT, UK, http://www.ilrt.bris.ac.uk/projects/semantic_web

The Semantic Web Group at ILRT is primarily interested in transforming mostly human-readable information on the web to there a critical mass of structured data via practical tools, applications and documentation for getting your data on to the Semantic Web. RSS and Calendaring are some of their key application interests, and they have produced tools for storage and query of RDF data.

2. **Semantic Computing Research Group** (SeCo) at University of Helsinki and HIIT, Finland, http://www.cs.helsinki.fi/group/seco/

The focus of SeCo is on machine-processable semantics. They investigate techniques for representing data and knowledge in such a way that machines can "understand" its meaning, and develop algorithmic methods for creating intelligent applications based on such representations.

3. Geospatial ontology research group (OntoGeo) at National Technical University of Athens, Greece, http://ontogeo.ntua.gr/

OntoGeo has focused on the application of ontology and semantics in geography, including spatio-temporal modeling, ontology engineering, semantic interoperability, geographic knowledge representation, and so on.

4. Knowledge-as-Media Research Group (KasM), National Institute of Informatics, Japan, http://www-kasm.nii.ac.jp

The aim of KasM group is to discuss and investigate knowledge sharing issues from various aspects that includes community engineering, ontology engineering, and metadata engineering. Knowledge is considered as a unique media that to interact other people and our environment. Their research investigates interaction among people and develops systems to support such activities.

5. Knowledge Representation Laboratory (KRLAB), Asian Institute of Technology, Thailand,
http://kr.cs.ait.ac.th/

The current research in KRLAB focuses on information representation and modeling, the Semantic Web, and software engineering. One of their current researches is XML Semantic Query.

6. China Knowledge Grid (CKG) Research Group, Institute of Computing Technology, Chinese Academy of Sciences, http://kg.ict.ac.cn/

The aim of CKG is to establish a worldwide resources (including knowledge, information, and service) sharing and management model and to develop the corresponding software platform. Their final aim is to establish an intelligent and cooperative platform on the Internet for problem-solving, knowledge management, and decision support. They have proposed a Resources Space Model RSM and related theory and method for the first time.

7. DataBase Systems Lab, Information and Communication University, Korea, http://dblab.icu.ac.kr/
IUC DB Lab carries out a variety of research and development projects. They continue to explore advanced information/knowledge management techniques and apply them to a broad range of applications of the present and future. Some of the projects it has been involved includes: Development of Semantic-aware Metadata Transformation Engine and Development of Semantic Web based Digital Library System.

8. Semantic Web Laboratory (SemWebLab) at the NRC Institute for Information Technology (NRC-IIT), Canada, http://iit-iti.nrc-cnrc.gc.ca/projects-projets/sem-web-lab-web-sem_e.html
SemWebLab aims to develop Semantic Web tools and applications and to coordinate with similar efforts in Canada and worldwide. At the basic layer, SemWebLab develops ontologies consisting of taxonomies that classify Web objects along with rules, typed by taxonomies, for integrity checking and knowledge inference. SemWebLab also studies agents that use ontologies to support, e.g., the similarity retrieval and composition of learning objects. SemWebLab has a focus on metadata extraction to cope with the vast number of Web objects that are natural language documents.

Key Research Centers (April List)
- The World Wide Web Consortium (W3C), http://www.w3.org/

  The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential as a forum for information, commerce, communication, and collective understanding.

- W3C SemanticWeb.org, http://www.w3.org/2001/sw/

  The *Semantic Web* provides a common framework that allows *data* to be shared and reused across application, enterprise, and community boundaries. It is a collaborative effort led by W3C with participation from a large number of researchers and industrial partners. It is based on the Resource Description Framework (*RDF*), which integrates a variety of applications using XML for syntax and URIs for naming.

- Web-Ontology (WebOnt) Working Group, http://www.w3.org/2001/sw/WebOnt/

The OWL Web Ontology Language is designed for use by applications that need to process the content of information instead of just presenting information to humans. OWL facilitates greater machine interpretability of Web content than that supported by XML, RDF, and RDF Schema (RDF-S) by providing additional vocabulary along with a formal semantics. OWL has three increasingly-expressive sublanguages: OWL Lite, OWL DL, and OWL Full.

- Transatlantic Research Center for the Semantic Web and XML Technologies, http://www.semanticwebcenter.org.uk/

  The Centre provides leading European and American researchers and developers in the area of XML Technologies and the Semantic Web with unique opportunities for effective and flexible transatlantic collaboration aimed at achieving world-class results.

  The Center conducts research into a wide range of emerging leading-edge technologies. Specific research topics are defined in a particular Research Project. Each Project is being curried out by a Research Group, specially formed for this purpose. Every Research Project is aimed at publishing a world-class research monograph or research-based dictionary in order to make the major results of the project available to the world's scientific community.

- Competence Center Semantic Web (CCSW) at DFKI, http://ccsw.dfki.de/

  This site is part of the German research center for artificial intelligence. The focus of the center is on distributed information management with Web-based standardized object representations, ontologies, and rule systems.

- The Information Management Group at University of Manchester, UK, http://img.cs.man.ac.uk/cgi-bin/index.pl?groupsGo=groupsShow&group=semweb&groupsType=Project&strReturn

  The group concerns with Ontologies Knowledge Representation Hypermedia. It uses knowledge representation language to represent conceptual models in machine-amenable formats, while allowing agents to reason and compute over those models. The group is linked to projects such as OilEd, OntoWeb, WonderWeb, and so on.

- The Knowledge Management Group at **University of Karlsruhe, Institute AIFB**, Karlsruhe, Germany, http://www.aifb.uni-karlsruhe.de/WBS/

  The group has a strong focus on Semantic Web and related areas. Core Semantic Web infrastructure technologies such as Ontobroker, OntoEdit and KAON are developed in collaboration with other groups in Karlsruhe. The group is involved into projects such as SEKT, Knowledge Web, AceMedia, OntoWeb, WonderWeb, SWAP and so on.

- The Knowledge Management Group (WIM) at the **Research Center for Information Technologies (FZI)**, Karlsruhe, Germany, http://www.fzi.de/wim/eng/

  The research group develops techniques and applications for the acquisition, representation & modeling, extraction, storage, access and application of knowledge. A wide range of knowledge intensive systems are based on different core techniques. The group is involved in projects such as DIP, SWWS, KAON, and so on.

- On-To-Knowledge, http://www.ontoknowledge.org/

  On-To-Knowledge-Project aims to develop tools and methods for supporting knowledge management relying on sharable and reusable knowledge ontologies. The technical backbone of On-To-Knowledge is the use of **ontologies** for the various tasks of information integration and mediation.

- **Knowledge Systems Laboratory** at Stanford University, http://www.ksl.stanford.edu/projects/DAML/

They are developing semantic markup and agent-based technologies to help realize the vision of semantic web. DAML-Enabled Web Services Project had the goal of developing next generation semantic web tools and technology.

- The MINDSWAP Group at the University of Maryland, http://www.mindswap.org/

  It is Maryland Information and Network Dynamics Lab Semantic Web Agents Project. Simple HTML Ontology Extensions (SHOE) is one of its first research projects on Semantic Web. It is also involved with trust and security on the Semantic Web and automatic ontology mapping.

- **eBiquity Research Group at University of Maryland, Baltimore County, USA,** http://ebiquity.umbc.edu/v2.1/research/area/id/9/

  The group has been involved with a variety of projects related to the Semantic Web. Among others, Spire, a Personal application for the Semantic Web, explores the use of semantic web technologies in support science in general and the field of ecoinformatics in particular. Securing the Semantic Web investigates distributed trust management as an alternative to traditional authentication and access control schemes in dynamic and pen computing environments such as multiagent systems, web services and pervasive computing. Semantic Discovery focuses on the design, prototyping, and evaluation of a system, called SEMDIS that supports indexing and querying of complex semantic relationships and is driven by notions of information trust and provenance.

- **OntoWeb** , http://ontoweb.aifb.uni-karlsruhe.de/

  Ontoweb is a thematic network funded by the European commission. Its goal is to bring together activities in the area of ontology-based methods and tools for the Semantic Web, bypassing communication bottlenecks between the various and heterogeneous groups of interest.

- Large Scale Distributed Information Systems Lab (LSDIS) at the University of Georgia, http://lsdis.cs.uga.edu/

  The LSDIS lab has extensive research, training, and technology transfer program in the areas of Semantic (Web) technologies. The SemDis project focuses on knowledge discovery and semantic analytics, and have developed a very large populated ontology testbed SWETO for evaluating (million object and relationship) that is being made available for all non-commercial usage. The METEOR-S project on Semantic Web Processes has researched and is developing tools/systems that utilize semantics in complete Web Service and Web Process lifecycle (annotation, discovery, composition, orchestration/execution). The Bioinformatics for Glycan Expression is applying semantic techniques for integration, analysis and discovery activities in the area of Glycomics, and has developed GLYCO, a comprehensive ontology covering some of the significant areas in the field. Example of commercialization of LSDIS lab's research is Semagix Freedom that has been used to develop semantic web applications for some of the world's biggest companies.

- Semantic Web enabled Web Services (SWWS) at HP, http://www.hpl.hp.com/semweb/swws.htm

  HP Labs Bristol has overall responsibility for two of case studies, which will concentrate on different aspects of procurement, to support developing SWWS platform. SWWS (Web Web Services) is a European 5th Framework project whose goal is to demonstrate how Semantic Web technology can be used to enable an open and flexible approach to web services. More specifically its goals are: 1) provide a comprehensive web services description framework; 2) define a web service discovery framework; and 3) provide a scalable web service mediation platform.

- Protégé Research Group at the Stanford University, http://protege.semanticweb.org/

  Protégé-20000 is on ontology editor and a knowledge-based editor. It provides support for editing Semantic Web ontologies.

JOIN AIS SIGSEMIS

You can support the activities of the SIG by joining as an AIS SIG member.
This can be done in one of the following ways:

➔ For AIS members: Go to the AIS SIG page (http://www.aisnet.org/sigs.shtml) and join SIGSEMIS after log in with your AIS username and password (10$ membership fees)

➔ For non-AIS members: Go to the AIS membership page (http://www.aisnet.org/join.shtml) and select the SIGSEMIS option while joining.

AIS **SIGSEMIS** http://www.sigsemis.org	Join: http://www.aisnet.org/sigs.shtml *Together we make the Semantic Web a Reality*

AIS SIGSEMIS BOARD AND ADVISORS

1. Amit P. Sheth, University of Georgia, USA
2. Miltiadis D. Lytras, Athens University of Economics and Business, Greece
3. Gottfried Vossen, University of Muenster, Germany
4. Ram Ramesh, SUNY at Buffalo, USA
5. Karl Aberer, Institute for Core Computing Science (IIF), School for Computer and Communication Science
6. Richard Benjamins, Intelligent Software Components, S.A., Spain
7. Francois Bry, University of Munich, Germany
8. Christoph Bussler, National University of Ireland, Galway, Ireland
9. Jorge Cardoso, University of Madeira
10. Jesus Contreras, Intelligent Software Components, S.A., Spain
11. Oscar Corcho, Intelligent Software Components, S.A., Spain
12. John Davies, Next Generation Web Research, BTexact, UK
13. Ming Dong, Wayne State University, USA
14. Dieter Fensel, University of Innsbruck, Austria
15. Farshad Fotouhi, Wayne State University, USA
16. William I. Grosky, University of Michigan, USA
17. Jorge Gómez, Otto-von-Guericke-Universität Magdeburg, Germany
18. Asuncion Gomez-Perez, Universidad Politecnica de Madrid (UPM), Spain
19. James Hendler, University of Maryland, USA
20. Lakshmi S. Iyer, The University of North Carolina at Greensboro, USA
21. Ramesh Jain, School of ECE and College of Computing
22. Henry M. Kim, York University-Toronto, Canada
23. Kinshuk, Massey University, New Zealand
24. Rajiv Kishore, SUNY at Buffalo, USA
25. Ralf Klischewski, Department for Informatics, University of Hamburg, Germany
26. Henrik Legind Larsen, Aalborg University Esbjerg, Denmark
27. Shiyong Lu, Wayne State University, USA
28. Ambjorn Naeve, Royal Institute of Technology (KTH) Stockholm, Sweden
29. Lisa Neal, Tufts Medical School, USA

30. Nancy Pouloudi, Athens University of Economics and Business, Greece
31. Al Salam, The University of North Carolina at Greensboro, USA
32. Demetrios Sampson, University of Piraeus, Greece
33. Miguel-Angel Sicilia, University of Alcal, Spain
34. Rahul Singh, The University of North Carolina at Greensboro, USA
35. York Sure, Universitt Karlsruhe, Germany
36. Marinos Themistocleous, Brunel University, UK
37. Bhavani Thuraisingham, NSF. - Directorate for Computer and Information Science and Engineering, USA
38. Kim Veltman, Maastricht University, The Netherlands
39. Ubbo Visser, University of Bremen, Germany
40. Gerd Wagner, Eindhoven University of Technology Eindhoven, The Netherlands
41. Lina Zhou, University of Maryland, USA

Serve as the editorial board of AIS SIGSEMIS Bulletins also.

Editor's Closing Remark

ENJOY SPRING☺

Dear friends,

I would like to thank personal all of you for the great support. The last three years we have made a great progress. Your support to our SIG was really significant. Lately almost my full time is dedicated to OPEN RESEARCH SOCIETY an NGO aiming to open new ways for international cooperation. And while these days in Europe every researcher is trying to pursue an FP7 project, the question remains always the same. How can we boost the knowledge dissemination to the people they need it? I send a letter to the members of the European Parliament asking a question on what happens with the deliverables of the R&D projects after the end od the projects. I know the answer and I am smiling. I want to make a final concluding remark. Some people like to criticize the number of initiatives I am involved. They use to promote the myth of Quality, etc☺ To all of them I owe a great thank you, since they make me every day to work harder and harder. For all the people the key issue is to find in their lifes the things that matter for them. I invite all of you in the WORLD KNOWLEDGE SOCIETY SUMMIT, in Greece 2008, to discuss and to contribute to our humanistic vision for a better world for all. Last but not least, I want to thank from the bottom of my heart the sponsor of this photo and to wish health, prosperity and well being to all of you.Please drop me a mail [Lytras@ceid.upatras.gr]

Athens 22 April, 2007, Miltiadis D. Lytras…