Foreword

Continuing its consolidated and prestigious tradition, the tenth edition of the International Conference on Web Engineering (ICWE 2010) complemented its research and industrial program with a selection of workshops extending the conference's program. The workshops offered Web engineering researchers and practitioners the opportunity for highly interactive sessions, which included in-depth, topical presentations and discussions of emerging research challenges and preliminary results. This volume collects the contributions of the hosted workshops and the co-located Doctoral Consortium.

In light of the need to offer an always novel and interesting program reflecting the emerging research of the Web engineering community, we made a huge effort to renovate the conference's workshop program, to enlarge the choice to authors and participants, and to attract high-quality contributions. The Web engineering community is a constantly growing group that, on the one hand, is working on a set of consolidated topics and, on the other hand, is constantly getting inspired by cutting edge technologies or societal trends. Thus, to enlarge the choice to both potential workshop organizers and authors, in designing this edition's workshop program we pursued two goals: First, we aimed at providing the typical audience of ICWE with a set of workshop topics that reflect the traditional interests of the community and that are as wide and comprehensive as possible. We achieved this goal thanks to well-established workshops covering topics such as model-driven development, quality and usability of Web applications, rich Internet applications (RIAs), and light-weight, component-based development of Web applications (e.g., mashups). Second, we wanted to attract new audiences to the conference, selecting also novel workshops that cover topics of an emerging or foundational nature that extend the focus of ICWE beyond its traditional topics. We reached this goal by betting on subjects such as the Semantic Web, semantic data management, the Internet of things, Web-enabled tourism, service-based compliance management, and e-crowdsourcing.

The result of this work is the selection of 9 workshops, out of 16 submitted workshop proposals, that were successfully held in Vienna on July 5 and 6, 2010:

- *MDWE 2010*: Sixth Model-Driven Web Engineering Workshop
- *QWE 2010*: First International Workshop on Quality in Web Engineering
- *SWIM 2010*: Second International Workshop on Semantic Web Information Management
- *SWEng 2010*: First International Workshop on Service Web Engineering
- *ESW 2010*: First Workshop on Engineering SOA and the Web
- *ComposableWeb 2010*: Second International Workshop on Lightweight Composition on the Web
- *EC 2010*: First International Workshop on Enterprise Crowdsourcing

- *TouchTheWeb 2010*: First International Workshop on Web-Enabled Objects
- *WEBTOUR 2010*: First International Workshop on Web Engineering and Tourism

The success of this year's workshop program is reflected in the incredible number of submissions, the high level of participation, and the impact registered by the individual workshops. Together, all workshops attracted more than 100 workshop paper submissions, an outstanding result. Including the submissions to the Doctoral Consortium, the co-located events for this edition of ICWE jointly attracted almost as many submissions as the main conference. The high number of submissions, on the one hand, implied higher competition among the submissions and, on the other hand, assured the top quality of the selected papers.

Following the exceptionality of this year's edition, we decided for the first time to establish a best workshop paper award, to be assigned to the best contribution out of all workshop paper submissions. The award was won by Roberto Mirizzi, Azzurra Ragone, Tommaso Di Noia, and Eugenio Di Sciascio for their paper entitled "*Semantic Wonder Cloud:* Exploratory Search in DBpedia," which was presented at the SWIM 2010 workshop. You can find the paper in this volume.

As an acknowledgment of the quality of the workshop program, we are proud that we could reach an agreement with Springer for the publication of all accepted papers in Springer's *Lecture Notes in Computer Science (LNCS)* series. We opted for post-workshop proceedings, a publication modality that allowed the authors – when preparing the final version of their papers for inclusion in the proceedings – to take into account the feedback they received during the workshops and to further improve the quality of their papers. We believe that this volume provides an interesting and up-to-date picture of what are the last trends and new ideas fermenting right now in the Web engineering community. Some of the papers included in this volume unveil unexpected, novel aspects and synergies that we think will be taken up in the future and may become mainstream research lines.

Without enthusiastic and committed authors this volume would not have been possible. Thus, our first thanks go to the researchers, practitioners, and PhD students who contributed to this volume with their work. We thank the organizers of the workshops and the Doctoral Consortium who reliably managed the organization of their events, the selection of the highest-quality papers, and the moderation of their events during the two workshop days. Finally, we would like to thank the General Chair of ICWE 2010, Gerti Kappel, and the Program Chairs, Boualem Benatallah, Fabio Casati, and Gustavo Rossi, for their constant support and trust in our work. We enjoyed organizing this edition of the workshop program, reading the articles, and assembling the post-workshop proceedings in conjunction with the workshop organizers. We hope you enjoy in the same way the reading of this volume.

July 2010   Florian Daniel
                                                             Federico M. Facca

Preface

The preface of this volume collects the prefaces of the post-workshop proceedings of the individual workshops. The actual workshop papers, grouped by event, can be found in the body of this volume.

Sixth International Workshop on Model-Driven Web Engineering (MDWE 2010)

Organizers: Gustavo Rossi, Nora Koch, Geert-Jan Houben, and Antonio Vallecillo

Web engineering is a specific domain in which model-driven engineering (MDE) can be successfully applied. Existing model-based Web engineering approaches already provide excellent methods and tools for the design and development of most kinds of Web applications. They address different concerns using separate models (navigation, presentation, workflows, etc.) and come with model compilers that produce most of the application's Web pages and logic based on these models. However, most of these Web engineering proposals do not fully exploit all the potential benefits of MDE, such as complete platform independence, meta-modeling, and model transformations.

In addition, there is an increasing trend towards the incorporation of emerging technologies like rich Internet applications, mashups, Semantic Web and (Semantic) Web rule languages, which aim at fostering application interoperability, especially within the scope of Web 2.0 and its related technologies and richer applications. These current trends involve new challenges both to the modeling and model-driven development domains. However, the effective integration of all these new techniques with the already existing model-based Web engineering approaches is still unresolved.

Accordingly, we invited original, high-quality submissions for the 2010 edition of the Model-Driven Web Engineering Workshop. In response to the call for papers, a total of eleven submissions were received. Each submitted paper was formally peer reviewed by at least three referees, and six papers were finally accepted for presentation at the Workshop and publication in the proceedings. This workshop builds on the success of the preceding 2005, 2006, 2007, 2008 and 2009 MDWE Workshops (held, respectively, in Sydney jointly with ICWE 2005, in Menlo Park jointly with ICWE 2006, and in Como jointly with ICWE 2007, in Toulouse jointly with MoDELS 2008 and in San Sebastián jointly with ICWE 2009). This year it was held in conjunction with the ICWE 2010 conference in Vienna, Austria.

The aim of this workshop was to provide a forum to discuss the state of the art in model-driven Web engineering (MDWE), where researchers and practitioners could meet to outline a roadmap that addresses the key challenges in this area. After each presentation, workshop participants and presenters had the opportunity to exchange some ideas. In the final session the lively discussion focused on the inclusion of new models in the model-driven process, such as models for quantitative analysis and models for understanding user behavior. Discussion was also centered on model evolution and the need of real examples for evaluating model-driven engineering approaches. Further information about the presented papers, together with the Call for Papers, and all the information relevant to the workshop, is available at the website of the event (see http://mdwe2010.pst.ifi.lmu.de/)

We would like to thank the ICWE 2010 organization for giving us the opportunity to organize this workshop, especially to the Workshops Chairs, Florian Daniel and Federico M. Facca, who were always very helpful and supportive. Many thanks to all those that submitted papers, and particularly to the contributing author and the presenters of the papers: Gerald Hübsch, Esteban Robles Luna, Alessio Gambi, Daniel Schwabe, Tobias George and Alessandro Bozzon. Our gratitude also goes to the reviewers and the members of the Program Committee for their timely and accurate reviews and for their help in choosing and improving the selected papers.

July 2010   Gustavo Rossi
                                                                                      Nora Koch
                                                                               Geert-Jan Houben
                                                                              Antonio Vallecillo

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First International Workshop on Quality in Web Engineering (QWE 2010)

Organizers: Silvia Abrahão, Cinzia Cappiello, Cristina Cachero, and Maristella Matera

The production of Web applications has been among the fastest growing segments of the software industry for several years. Web-based companies depend on customers using their sites, and most importantly, returning to their sites. This means that unlike many other applications, Web applications only succeed if they satisfy customers' needs. However, some recent studies suggest that more than 50% of the delivered Web applications are of poor quality.

To achieve quality for any class of Web products (e.g., a data-intensive application, a Web service, a community portal), the set of relevant quality attributes for Web artifacts must be clearly defined. Otherwise, quality assessment is left to the intuition or the responsibility of people who are in charge of the process. Quality models should be built to precisely identify the quality attributes and the relationships among them. Based on these quality models, adequate (i.e., quality aware) development and assessment techniques should then be applied during the whole application life cycle.

This need to reflect on and advance methods and techniques that help improve the quality of delivered Web applications led us to organize the first edition of the International Workshop on Quality in Web Engineering (QWE 2010) that was held in conjunction with the 10th International Conference on Web Engineering (ICWE), in Vienna, Austria, in July 2010. The event capitalized on our previous experience with the organization of three editions of the International Workshop of Web Usability and Accessibility (IWWUA), trying, however, to enlarge the initial usability and accessibility scope to the broader concept of quality. The main purpose was to discuss new, quality-oriented trends in Web application engineering, and to provide an international forum for information exchange on methodological, technical and theoretical aspects.

These proceedings collect the papers presented at the workshop. All the submitted papers were peer-reviewed by three independent reviewers. The acceptance rate of the workshop was 44%. The accepted papers (four regular papers and one short paper) discuss novel aspects of Web application quality, ranging from new quality models and quality-enhanced development processes to advanced quality factors, such as security in mobile environments, reliability of search engine results, and also adaptivity through recommendations.

We would like to thank all the authors for submitting their manuscripts to the workshop and contributing to the fine form that the interesting program

took. Also, we would like to thank the members of the Program Committee for
their efforts in the reviewing process, and the ICWE organizers for their support
and assistance in the production of these proceedings.

We are especially grateful to Shadi Abou-Zahra, Activity Lead at the WAI
International Program Office (W3C, Wien, Austria), for his interesting keynote
speech "Better Web: Accessible and Standards Compliant." More details on the
workshop are available at http://gplsi.dlsi.ua.es/congresos/qwe10/

July 2010   Silvia Abrahão
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                                                                  Maristella Matera

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Second International Workshop on Semantic Web Information Management (SWIM 2010)

Organizers: Roberto De Virgilio, Fausto Giunchiglia, and Letizia Tanca

The ceaseless expansion of the World Wide Web is making it more and more complex for humans to efficiently find the needed information. The underlying idea of having a description of the data on the Web, organized in such a way as to be used by machines for automation, integration and reuse across various applications, has been exploited in several research fields.

As in the first edition, this International Workshop on "Semantic Web Information Management" (SWIM) aimed at reviewing the most recent data-centered solutions for the Semantic Web. In particular, its ambition was to present and analyze the techniques for semantic information management, by taking advantage of the synergisms between the logical basis of the Semantic Web and the logical foundations of conceptual modeling. Indeed, the leitmotif of this research is the proposal of models and methods conceived to represent and manage the so-called "semantic data," that is, data appropriately structured to be easily machine-processable on the Web, according to semantic models (e.g. RDF, RDF(S), OWL). The long-standing experience of the information modeling community can provide a priceless contribution to the substantial problems arising in semantic data management.

The new research issues can be summarized by the following problems:

1. How can we efficiently and effectively store large amounts of semantic data?
2. How can we query semantic data and reason on them in a feasible way?
3. How can we exploit such semantic data in real world scenarios?

This workshop covers the emerging area of the Semantic Web, gathering researchers to debate, propose, and elaborate the foundations for a data-modeling approach to these problems, by presenting running research and projects on these topics.

June 2010

Roberto De Virgilio
Fausto Giunchiglia
Letizia Tanca

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First International Workshop on Service Web Engineering (SWEng 2010)

Organizers: Lyndon Nixon, John Domingue, and Barry Norton

The First Workshop on Service Web Engineering (SWEng) grew out of a thriving research vision of the service Web, driven by the continuing trend towards service-oriented architectures (SOA), cloud computing and Web 2.0 APIs, in which websites provide programmatic access to their content and functionality. We envision a future Web in which billions of services will be seamlessly found, composed and executed just as how in today's Web we can find and browse

billions of documents, enabled by the use of semantic technologies for describing richly the functional and non-functional characteristics of services and enabling systems to automate the requisite mediation and agreement between services.

July 2010   Lyndon Nixon
                                                                 John Domingue
                                                                  Barry Norton

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First International Workshop on Engineering SOA and the Web (ESW 2010)

Organizers: Uwe Zdun, Schahram Dustdar, and Bruno Crispo

Service-oriented architectures (SOA) are nowadays used as the backbone of many Web applications. The First Workshop on Engineering SOA and the Web (ESW 2010) focused on the overlap of engineering service-oriented systems and Web applications into a coherent system. The main goals of the workshop were to bring together experts, both from industry and academia, who work on the interdependent context of SOA and Web applications and use engineering methods to make that link.

The workshop focus was on high-quality papers in the topic areas: Monitoring of SOAs via the Web, Management of SOAs via the Web, Governance of SOAs via the Web, Integration of SOAs and Web Applications, Web Dashboards for SOAs, Monitoring and Management for Compliance of SOA, Metrics for SOA Management, Security Management in SOA, and Engineering Methods

and Approaches for SOAs and Web Applications. The following five papers were accepted for presentation at the workshop, and can also be found in the proceedings:

- Carlos Rodríguez, Patrícia Silveira, Florian Daniel and Fabio Casati. "Analyzing Compliance of Service-Based Business Processes for Root-Cause Analysis and Prediction"
- Maciej Gawinecki, Giacomo Cabri, Marcin Paprzycki and Maria Ganzha. "Trade-Off Between Complexity of Structured Tagging and Effectiveness of Web Service Retrieval"
- Soumaya Marzouk, Afef Jmal Maâlej and Mohamed Jmaiel. "Aspect Oriented Checkpointing Approach of Composed Web Services"
- Afef Mdhaffar, Soumaya Marzouk, Riadh Ben Halima and Mohamed Jmaiel. "A Runtime Performance Analysis for Web Service-Based Applications"
- David Schumm, Oktay Turetken, Natallia Kokash, Amal Elgammal, Frank Leymann and Willem-Jan van den Heuvel. "Business Process Compliance Through Reusable Units of Compliant Processes"

These papers went through a rigorous review process, with three or four reviews for each of the papers. We would like to thank the members of the Program Committee for delivering in time their reviews and the ensuing discussion that led to the final selection of the papers.

July 2010   Uwe Zdun
                                                                    Schahram Dustdar
                                                                    Bruno Crispo

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Philip Robinson	SAP

Second International Workshop on Lightweight Composition on the Web (ComposableWeb 2010)

Organizers: Florian Daniel, Sven Casteleyn, and Geert-Jan Houben

After its first edition in conjunction with last year's ICWE in San Sebastian, Spain, this year's edition of ComposableWeb also took place in conjunction with ICWE, this time in Vienna, Austria. The workshop focused on research, practical experiences, and novel ideas in the context of component-based development of Web applications, lightweight composition on the Web, Web 2.0, and mashups. The goal of the workshop was to provide a discussion forum bringing together researchers and practitioners working in these areas, in order to jointly advance current state-of-the-art solutions. The topics of the workshop typically attract enthusiastic people that like to play with novel technologies and that try to make application development accessible also to less skilled developers or—as envisioned by many—even to end-users.

The discussion at the end of the first edition of the workshop manifested the desire of the participants to have more discussions and hands-on-experience reporting during the workshop, and to give more space to the practical issues of the presented works. We took these hints seriously into consideration in the organization of this year's edition of the workshop and accompanied the traditional workshop paper presentations with (1) a keynote talk by Boualem Benatallah that reviewed the state of the art in service composition and reuse and looked at end-user programming with a critical eye, providing lots of insights and experience, and (2) a demo session dedicated to showcase running (or not) prototypes in a very informal, stand-up fashion, also involving workshop participants who did not have a formal paper to present during the workshop but that nevertheless were willing to contribute.

Regarding the scientific program, after a rigorous reviewing process 6 papers, out of 14 submissions, were accepted for presentation. This year the acceptance rate was lower than last year. This was related to the fact that slots in the workshops agenda had to be allotted for the keynote and the demo sessions and that publishing the proceedings of the workshop with Springer required us to keep the acceptance rate at a competitive level.

It turned out that the revised format of the workshop and the strong competition both contributed to a successful event with an average of 30-40 attendees throughout the whole day—a result we are particularly proud of (especially given this year's strong competition also among the different workshops hosted by ICWE), which also convinced us to re-propose the workshop in a similar format next year.

We would like to thank all the authors who contributed to the workshop with their papers and presentations, Boualem for his stimulating keynote, and the audience for actively participating in the discussions. We also would like to thank the following people who contributed to the demo session by providing details about their work and prototypes: Junxia Guo (partial information extraction tool), Tomoya Noro (mobile application demo), Cesare Pautasso (RESTful

mashups with JOpera), In-Young Ko (GeoWorlds Information Manager), Oscar Diaz (the crowd as co-author of application functionality), and Tobias Nestler (ServFace Builder for visual service composition). Finally, we would like to thank the ICWE Organizers and Workshop Chairs for hosting the workshop and providing a nice, relaxed, yet constructive environment.

July 2010   Florian Daniel
                                                                                  Sven Casteleyn
                                                                                  Geert-Jan Houben

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First International Workshop on Enterprise Crowdsourcing (EC 2010)

Organizers: Claudio Bartolini and Maja Vuković

Web 2.0 technologies have enabled harnessing large crowds of users for mass data collection and problem solving activities. Over the past few years, crowdsourcing has been employed in a range of domains, beyond pharmaceutical research and software development. There are two types of approaches that have been proposed in order to catalyze the involvement of the crowd. The first approach relies on motivating humans to share information and by that either gain creditability or obtain the equivalent information. The other approach provides explicit and tangible incentives to people for their work (e.g., monetary prizes).

With the increasing interest in harnessing large crowds as a scalable workforce online, enterprises require an understanding of the underlying business model and how transition to a crowdsourcing model would affect their existing processes. Twenty participants from research and industry took part in the workshop, which featured five position papers and two invited speakers. These proceedings are the output of the workshop. The contributions to the workshop can be broadly categorized into three areas: (1) quality assurance in crowdsourcing, (2) applications of enterprise crowdsourcing and (3) challenges in engaging enterprise crowds across geographies.

The workshop opened with the keynote from Schahram Dustdar, providing an overview of key research elements in human-based services. Karnin et al. presented an application of crowdsourcing to the processing of scanned documents. La Vecchia et al. described how to transform canonical business processes to crowdsourced business processes, while retaining the same level of quality and control of traditional outsourcing approaches with a conventional workforce. Maja Vukovic presented a novel application of crowdsourcing in IT asset management and discussed lessons learned from enterprise deployment.

Kern, et al. proposed a novel, matrix-based model for classifying quality assurance in enterprise crowdsourcing, and identifying the corresponding mechanism for engaging the crowd for data assurance. Arellano et al., applied the Metropolis Model for crowdsourced website development to promote script-based crowdsourcing. Oliviera et al. provided early insights into challenges of engaging subject matter experts in an open innovation processes, and identified the difference between North American and European contexts.

Many commonalities were identified across the presented works and discussions, namely: the importance of data quality, the integration of crowdsourcing with the business process, and a better understanding of how to engage and sustain the crowd of high contributors.

July 2010   Claudio Bartolini
                                                                        Maja Vuković

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First International Workshop on Web-Enabled Objects (TouchTheWeb 2010)

Organizers: Fernando Lyardet and Vicente Pelechano

The first edition of the TouchTheWeb workshop took place at the Technical University of Vienna premises. The papers presented in these proceedings have been selected in a peer-review process, where each of the papers was reviewed by at least two members of the Program Committee. Thematically, the workshop was organized into three sessions: Linking the Web of Things, Emerging Applications & Interaction Paradigms, and Research Challenges for the Web of Things.

The first session discussed core technologies and approaches for linking, combining and exchanging information between Web-enabled things. The first paper "Connecting Smart Things Through Web Services Orchestrations" presents an approach to apply Web services concepts and standards such as WSDL and WS-BPEL to the physical world. This follows two clear trends in the community: on the one hand, REST-based devices that require minimal computing power to serve requests, and on the other hand, the growing capabilities of embedded hardware that enables such devices to be treated as full-fledged Web services. While the latter approach tends to abstract how the communication takes place from the nature of the participating entity (small devices), REST-based devices allow for a broader number of things to be inter-connected. The second paper "Mashing Up Your Web-Enabled Home" makes the case for enabling users to create their mashups of REST-based entities, and the value of sharing those mashups with the community. The first session was completed with the paper "Triple Space-Based Semantic Distributed Middleware for Internet of Things" that proposed a tuple-based scheme for sharing information among Web-Enabled things.

The second session focused on putting the Internet of Things to work with novel interaction mechanisms for contextual assistance to users performing different tasks. The paper "Touch-Based Services' Catalogs for AAL" presents an infrastructure based on the concept of a catalog for providing a flexible linkage between physical elements and digital services. The second paper of this session, "Designing Context-aware Interactions for Task-based Applications," introduces design principles based on the concept of simplicity for supporting workflows in an environment full of digitally augmented things.

Finally, the last session was devoted to summarizing several issues that appeared as common concerns throughout the different sessions: the need to find innovative applications and new scenarios to better understand how the physical Web can become a transforming tool. Another challenge detected was to find the right granularity in the relationship between physical elements and their digital counterparts beyond a one-to-one relationship. For example, the possibility of decoupling the service descriptions in different perspectives according to the shared properties of physical elements (e.g., devices that can be turned on and off can provide this interface in addition to other interfaces of their specific services was explored).

Other, more technical issues discussed were the role of space and spatial relationships for building meshes of things, and mechanisms for discovering things (e.g., distinguishing ordinary physical elements from those digitally augmented) and their services (e.g., finding new services that dynamically appear and disappear).

July 2010   Vicente Pelechano
                                                                  Fernando Lyardet
                                                                        Pau Giner

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Andreas Zinnen	SAP Research CEC Darmstadt, Germany

First International Workshop on Web Engineering and Tourism (WEBTOUR 2010)

Organizers: Hannes Werthner, Birgit Pröll, Arno Scharl, and Christoph Grün

The Internet has become a cornerstone of the tourism and travel industry and created an online travel market that helps tourists to search for information has and book their trip online. The huge number of websites that offer travel-related information, however, might lead to daunting information overload. In order to support tourists in decision-making, new methods and technologies (e.g., Semantic Web, recommender systems, context-sensitive approaches, or innovative user interfaces) are required to deliver highly targeted services to tourists. Also the supplier side, including destination management and travel organizations, has to keep up with the rapid developments in ICT. For this purpose, they have to use innovative Web mining methods to analyze the market, inter-organizational Web applications/services to exchange information and novel forms of social Web and rich Internet applications to enforce the contact with their customers.

The crucial prerequisite for all these developments is proper Web engineering to allow for systematic development and the maintenance of next-generation tourism applications for the Web.

The purpose of the International Workshop on Web Engineering and Tourism (WEBTOUR) was to bring together researchers from diverse communities who are interested in discussing ideas and ongoing work related to the field of Web engineering and e-tourism.

WEBTOUR was organized in conjunction with the 10th International Conference on Web Engineering (ICWE) from July 5–9, 2010 in Vienna, Austria. In total, five papers were accepted for presentation. They focused on algorithms for supporting tourists in trip planning, Web-based tourist guides that integrate information from public transportation systems as well as frameworks that facilitate the evaluation of tourism destination websites with respect to their communication efficacy. Apart from these papers, the workshop program included an invited talk by Dieter Merkl, Professor at the Institute of Software Technology at the Vienna University of Technology, about cultural awareness in collaborative virtual environments.

Finally, the WEBTOUR organizers would like to thank the Program Committee members for their valuable comments on the submissions, the authors for inspiring papers, the audience for the interest in this workshop, and the Workshop Chairs as well as the ICWE Organizers for hosting this workshop.

July 2010
<div align="right">

Hannes Werthner
Birgit Pröll
Arno Scharl
Christoph Grün
</div>

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ICWE 2010 Doctoral Consortium

Organizers: Cesare Pautasso, and Takehiro Tokuda

The ICWE 2010 Doctoral Consortium held at the Vienna University of Technology was a unique opportunity for all participating PhD students to present their work and share their ideas in an international setting.

The aim of the ICWE 2010 Doctoral Consortium was to provide PhD students with an encouraging atmosphere to present their research, receive useful feedback from senior researchers, and exchange ideas/experiences with other PhD students in the area of Web engineering.

The 2010 edition of the ICWE Doctoral Consortium included 10 position papers by PhD students from all over the world selected out of 14 submissions. Each student gave a ten-minute presentation and received valuable comments both from their peers and from senior researchers. Through the consortium and by attending the entire ICWE 2010 conference the PhD students came to know each other very well and gained a better understanding of the multifaceted ongoing research on Web engineering.

We would like to thank the members of the DC Program Committee for their valuable feedback to the PhD students as well as the ICWE 2010 organizers for their excellent support in running the doctoral consortium. Also, we are grateful to Erik Wilde, Daniel Schwabe, and Martin Gaedke for actively participating during the consortium and for their contribution to the closing panel discussion.

July 2010   Cesare Pautasso
                                                Takehiro Tokuda

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ICWE 2010 Doctoral Consortium