Workshop on Future Standards for Model-Based User Interfaces: A Statement of Interest

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Interest in the Workshop

I am motivated to participate in and contribute to the Workshop mainly from two angles. The first one relates to teaching model-based Web application development to post-graduate students. The second one is to do with strategies for validation and verification of the models and the subsequent recommendations about their usability and efficacy, including cautions against inappropriate use.

In terms of teaching, the layered architecture outlined in the CfP for the Workshop is a logical development for Web applications and yet not easy for students to put into practice. The first five goals of the Workshop are explicit about the issues involved in going from the conceptual to the concrete where a majority of the students like to concentrate. Software development models are not 'provable' in a way similar to those in scientific, mathematical, statistical, Operational Research or even Simulation models are. Hence, every advance in identifying the benefits of modelling and in helping to decide what should be standardised and when, is therefore welcome. Referring to the layered architecture again, students are more comfortable with layers three and four than with the top two, a condition which may not be rare among the experienced Web application developers as well. With the onslaught of new technologies, it becomes essential that we have effective models that help people to demystify and declutter the hardware and software developments, showing clearly where they would fit in a given model

Validation and verification are treated as integral part of scientific, mathematical, statistical, Operational Research and Simulation models. While Web application development models may not be 'provable' in a similar way, it would be useful to experiment with and devise measures for 'acceptability' or 'efficacy' of the models. In other words, it may be necessary to arrive at a good definition of how to judge the usefulness of a model. In the context of the Web, and Web Science, this is likely to be addressed more in terms of how social sciences generally validate their research. In any case, good models, *ipso facto*, should always be subjected to validation and verification.

My Personal Viewpoint

I have been involved in computing for more than 40 years and in the World Wide Web movement for the last 15 years. The initial contact with the Web brought back memories of early software development when structured programming was unheard of, let alone any thought of application development models. Those memories and the subsequent lessons learnt by the world wide computing community spurred my colleagues and me, at the University of Western Sydney (UWS), to formulate a Web Engineering curriculum, in tandem with our organisation of International Workshops in Web Engineering from 1998 to 2002 at the World Wide Web Conferences and also at the International Conferences in Software Engineering (1999, 2000 and 2002). This effort contributed

substantially to the recognition of Web Engineering as an emerging discipline which is now being fostered by the International Conference in Web Engineering and others.

I have led the master's course in Web Engineering at UWS since its inception in 1999 and during this time taught subjects such as Web Technologies, Web Application Development, Web Engineering, IT Project Management, Content Management Systems and XML and Web Services. Over more than a decade, I have found the post-graduate student cohorts as well as budding researchers struggling to make sense of the Web in its wider context, not just in the sense of technical software development. .They have also had, and continue to have, difficulties dealing with modelling applications in general. The challenge of explaining the difference between purely technical, computing paradigm and the Web paradigm hasn't quite diminished yet. The more rigorous the modelling activity becomes and the more it proves to be beneficial to both the developers and the users, the easier it will be to convince the students and Web application developers to adopt better ways to deliver and maintain their applications.

There is an additional perspective. I am currently also working in the areas of large-scale information management and Green ICT. These areas deal with information that is global in scale, not always well-defined in ontological terms and fraught with many other implications which go beyond the technical aspects of application development. They require user involvement on a massive scale. Model-based UI is therefore a necessity, not an activity just for researchers.

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20 April 2010