

## Foreword

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 do not 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<sup>1</sup>. I feel many times 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.

A couple years ago 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 until 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, as well as planned editions, 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 is 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.

*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)<sup>1</sup>. In this sense, "Semantic Web Services: 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 do not support them 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 new 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 let us put together the new milestones towards a better world for all through the adoption of leading edge technologies in humanistic visions.

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## ENDNOTES

- <sup>1</sup> Sheth, A., Ramakrishnan C., & Thomas, C. (2005). Semantics for the Semantic Web: The implicit, the formal and the powerful. *International Journal on Semantic Web and Information Systems, Inaugural Issue, 1(1)*, 1-18.
- <sup>2</sup> Lytras, M. (2005). Semantic Web and information systems: An agenda based on discourse with community leaders. *International Journal on Semantic Web and Information Systems, Inaugural Issue, 1(1)*, i-xii.