Foreword

This book is about the business value of semantic technologies. Specifically, it reports case studies that have applied Semantic Web standards and methodologies to a range of business applications and infrastructure needs, including many European Union funded research programs. The results are encouraging, and worthy of consideration by both business executives and IT professionals. The future of e-business lies in this direction.

As discussed in this book and as demonstrated by the case studies presented here, the Semantic Web for business is a work in progress. Most work to date has focused on issues of data integration, system interoperability, and process plumbing. There is significant value in this. But, it is only the beginning. Much more business value will be harvested from semantic technologies in the coming decade.

To set the stage, let us talk for a moment about the business value of semantic technologies. We estimate that over the next ten years semantic technologies have the potential to drive 2-3 order of magnitude improvements in capabilities and life cycle economics of business solutions through cost reductions, improved efficiencies, gains in effectiveness, and new functionalities that were not possible or economically feasible before now.

The business value of semantic technologies has three dimensions or axes: 1: capability, performance, and life cycle economics.

1. **New capabilities**: Semantic technologies enable new capabilities that tap new sources of value. Sources of new value include: value from knowledge modeling, value from adding intelligence, value from learning and value from semantic ecosystem.
2. **New performance**: The classic motivations for new investments in technology are: efficiency gain, effectiveness gain, and strategic edge. We call these the 3-Es.

The value drivers for semantic technologies in business are strong. As you read the research case studies presented in this book, you will find many aspects of business value discussed and demonstrated, although not to the full extent that can be anticipated for full deployment of production solutions exploiting commercialized products and services. Collectively, however, these case studies make a compelling case for the adoption of semantic technologies in business.
ENDNOTE


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