The Current Issue

My (perhaps naive) view of how we progress from the world of human understanding (involving semantics) to the world of automatic data processing of one form or another (involving syntax) is to capture more of the human world of semantics as syntax. This is a complex activity, and requires that people agree on a number of important issues, such as (i) how to express the syntax, (ii) how the words (character strings) relate to one another and to various computer operations. Historically, the database community has been a bit spoiled. The syntax was given to us very early by Ted Codd. The ”words” were defined only locally, and were provided from well defined business data processing that in many cases was already being done.

Now we have the world wide web to deal with. One need not buy into some grandiose vision (a point made by Manola in this issue) to see that as we incrementally provide more ”syntax”, and fill in information, e.g. via ontologies or via data modelling, we will provide an ever more useful ”semantic web”. The test of success, in its most basic economic sense, will be if and when companies can make money providing web services that win them financial success. I am convinced that this will happen. Much of the activity and research described in this issue of the Bulletin provides strong evidence that progress is being made. A final caution- the semantic web is a huge challenge, so be patient. Looked at another way, it is a major research opportunity!

I'd like to thank Umesh Dayal, Harumi Kuno, and Kevin Wilkinson for undertaking this very ambitious issue on the semantic web. I think Bulletin readers will find there is much to learn from this newly emerging and increasingly important part of the database field.