Chapter 8

Conclusion

The Semantic Web vision is a reality. As discussed in chapter 6, increasing numbers of companies, governments, and users are adopting the set of standards, technologies, and approaches laid out in this book. We have seen how leveraging the concepts of the web with a flexible data model, RDF, enables the exchange and reuse of information between applications. Based on this data model, we have seen how progressively richer semantics have been added, allowing increasingly powerful inferences to be made (chapter 2). OWL2 (chapter 4) allows for rich knowledge representations to be built and rule languages (chapter 5) allow application-specific inferences to be systematically encoded. All this information is made available through a web-integrated query language SPARQL (chapter 3). Finally, we have seen how ontology engineering methods can be applied to use these technologies in the creation of smarter, more advanced applications (chapter 6).

Throughout this book, we have seen how these technologies and techniques are grounded in knowledge brought from a wide variety of computer science disciplines including Artificial Intelligence, Databases, and Distributed Systems, and pointed to places for further study of all the material given here. The reader is encouraged to