The traditional view of information systems as tailor-made, cost-intensive database applications is changing rapidly. The change is fueled partly by a maturing software industry, which is making greater use of off-the-shelf generic components and standard software solutions, and partly by the onslaught of the information revolution. In turn, this change has resulted in a new set of demands for information services that are homogeneous in their presentation and interaction patterns, open in their software architecture, and global in their scope. The demands have come mostly from application domains such as e-commerce and banking, manufacturing (including the software industry itself), training, education, and environmental management, to mention just a few.

Future information systems will have to support smooth interaction with a large variety of independent multivendor data sources and legacy applications, running on heterogeneous platforms and distributed information networks. Metadata will play a crucial role in describing the contents of such data sources and in facilitating their integration.

As well, a greater variety of community-oriented interaction patterns will have to be supported by next-generation information systems. Such interactions may involve navigation, querying, and retrieval, and will have to be combined with personalized notification, annotation, and profiling mechanisms. Such interactions will also have to be intelligently interfaced with application software and will need to be dynamically integrated into customized and highly connected cooperative environments. Moreover, the massive investments in information resources, by governments and businesses alike, calls for specific measures that ensure security, privacy, and accuracy of their contents.

All these are challenges for the next generation of information systems. We call such systems Cooperative Information Systems, and they are the focus of this series.

Cooperative information systems are serving a diverse mix of demands characterized by content, community, and commerce. These demands are origi-
nating in current trends for off-the-shelf software solutions, such as enterprise resource planning and e-commerce systems.

A major challenge in building cooperative information systems is to develop technologies that permit continuous enhancement and evolution of current massive investments in information resources and systems. Such technologies must offer an appropriate infrastructure that supports not only development but also evolution of software.

Early research results on cooperative information systems are becoming the core technology for community-oriented information portals or gateways. An information gateway provides a one-stop-shopping place for a wide range of information resources and services, thereby creating a loyal user community.

The research advances that will lead to cooperative information systems will not come from any single research area within the field of information technology. Database and knowledge-based systems, distributed systems, groupware, and graphical user interfaces have all matured as technologies. Further enhancements for individual technologies are desirable, but the greatest leverage for technological advancement is expected to come from their evolution into a seamless technology for building and managing cooperative information systems.

The MIT Press Cooperative Information Systems series will cover this area through textbooks and research editions intended for the researcher and the professional who wishes to remain up-to-date on current developments and future trends.

The series will publish three types of books:

- Textbooks or resource books intended for upper-level undergraduate or graduate courses;
- Research monographs, which collect and summarize research results and development experiences over a number of years;
- Edited volumes, including collections of papers on a particular topic.

Authors are invited to submit to the series editors book proposals that include a table of contents and sample book chapters. All submissions will be reviewed formally, and authors will receive feedback on their proposals.

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