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, call 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.

In lay terms, cooperative information systems are serving a diverse mix of demands characterized by *content—community—commerce*. These demands are originating 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. While further enhancements for individual technologies are desirable, 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