

## Foreword

The shifting sand of our global information systems is extraordinary, with the content and search driven systems of the past playing only a small part of the information landscape. As we move from systems that provide documents to those that connect us to key experts, as we move from the desk to mobile computing, as we move from local networks to the cloud, information system value is driven by an elementary but critical factor – good design. When they’re good, information systems are simple and easy to use, but as the editors and authors of this important work fully understand and explain remarkably well – simple and easy designs are rooted in a deep understanding of user needs and information seeking behavior.

*Systems Science and Collaborative Information Systems: Theories, Practices and New Research* provides a rich discussion of the need for this deep understanding of users, their needs, and the context that they bring to an information system, as well as their backgrounds and behaviors. The work is as innovative in its approach as it is comprehensive in its scope. There is a clear international focus to this work, with authors from Spain, Mexico, Brazil, France, and the United States. This is no surprise, as the editors, Professor Emilia Currás and Dr. Nuria Lloret Romero, have international research and system design experience and have assembled a premier group of scholars to explore these issues and how information systems are changing as a result.

This awareness of information shifts and the challenges of users navigating available information systems form the core of the research and theoretical discussions in this book. While most of the general public takes information for granted, the researchers featured in these pages understand and describe the myriad factors that go into high-quality systems. The variations in information availability around the world, systems for managing information sources, cultural framing in information-rich settings, adapting to search requirements, and user attitudes toward data systems, are all explored in the book’s chapters. The study of information seeking behavior is important, as it builds on our understanding and interaction with the world around us. Increasingly, our physical and cognitive approaches to dealing with our social and professional environments are framed by the information we have consumed. Examining how that information came into our lives, how we go about getting more information efficiently and our reactions as humans in a world of complex information systems sheds light on our potential future as information consumers and the present-day challenges of systemizing information feeds.

Toward that end, this book opens by considering which information systems are available to key emerging populations around the world. Jointly written by Elsa Barber, Silvia Pisano, Sandra Romagnoli, Verónica Parsiale, Gabriela de Pedro, Carolina Gregui, and Nancy Blanco, the inaugural chapter, “Management Systems of User Interfaces functionalities in Latin-American Web OPACs,” examines the online public access catalogs (OPACS) changes facing university, special, and public and national

libraries throughout the region. These researchers have developed a quantitative method for evaluating such systems, which removes ambiguity about information availability in critical, functional categories.

Moving from what's available to the challenges of navigation and search, the book explores inherent system complexities, impacts of dominant culture management systems, and "informationism" – the new paradigm replacing industrialism in the modern world. Aida Varela and Marilene Lobo Abreu Barbosa take the lead with "The Complexity of Finding Information in Collaborative Information Systems: Cognitive Needs," followed by Margarita Cabrera Méndez's "Cultural Management 2.0" and "Informationism, Information, and its Neuronal Theories," and "Vertical Integration of Science. An Approach to Including Information, Knowledge, and Its Organization" by Emilia Currás.

The systemic approaches to information gathering and analysis discussed by these researchers build on the body of knowledge that is needed for an acceptable organization of data points. This body of knowledge is then challenged by José María Díaz Nafría, who argues in his chapter, "Information: A Multidimensional Reality," that the field lacks consensus, and, as such, has constructed information as a multifaceted reality for consumers with decidedly geometric traits.

Delivering usable services and information is in the eye of the consumer, and this issue is addressed squarely in the chapter: "Adaptive Information Retrieval Based on Task Context" by Bich-Liên Doan and Jean-Paul Sansonnet, which describes the role of artificial agents in information searches. Francisco-Javier García-Marco's discussion in "What is Information? An Enquiry Beyond Information Science From a Systemic Point of View," examines from a unique perspective the nature of content and how it is related to end-user (human) experiences and perception.

Turning back to a key tension in the book, "Metadata for Information Retrieval in Archives" by Vicent Giménez Chornet, discusses the issue of the diminished stature of traditional information management systems. The ability to search electronically has revolutionized the industry since the 1990s, but according to Chornet, the heralded metadata and discovery systems have not yet caught up. Proposals and action plans to marry the two forms is covered, with the aim of achieving optimal information retrieval methods.

Of course, even the most efficient systems are worthless if no one finds them useful or easy to use. "Understanding User Attitudes Toward Information Systems: A Grounded Theory Approach" by David A. Jank examines how people form their mindsets around information systems and how those mindsets or attitudes can actually shift system use. Where user attitudes and the context they bring to information systems are better understood, better system tools and functionalities result without question in Jank's view.

User needs give way to administrator and community concerns in the final chapter. "Academic Libraries as Complex Systems" by Álvaro Quijano-Solís and Guadalupe Vega-Díaz looks at several theoretical positions for library management, both on the back end with staff and on the front end where community members are interacting with the systems. In this way, the authors suggest that only by taking into account both viewpoints can such complex systems grow over time and become optimal.

Each of these researchers offers a different and innovative view of the new collaborative information systems rapidly emerging in the market. By perusing each section carefully, it is possible to come away with a new understanding of the current leading edge thoughts around the nature of information, as well as how systems no longer inform and transform our lives with mere content or more search, but rather through a rigorous understanding of users, their information needs, the diverse information contexts they bring to problems, and their complex information-seeking behaviors.

The Information Age has dawned, and the sun has steadily moved its journey through the sky. In a world overflowing with information systems, increasing our knowledge of users beyond the noise and the methodologies of information technology may allow us to make better sense of our world before the sun once more meets the horizon.

*John J. Regazzi*

*Long Island University and Partner, Focused Connections*

**John Regazzi** is currently Professor, Dean Emeritus and Director of the College of Information and Computer Science at Long Island University. In 2005 John was appointed Dean of the College of Information and Computer Science and Dean of Palmer School of Library and Information Science. In September 2001, he was appointed to the position of Managing Director, Market Development of Elsevier. This appointment was in addition to his duties as President and CEO of Elsevier Inc. and a member of the Elsevier Board of Directors. Previously he was also Managing Director of Elsevier Electronic Publishing, globally. As Managing Director, Market Development, John was responsible for Elsevier's research, advanced technology, and new strategic market initiatives. Prior to joining Elsevier, John was President and CEO of Engineering Information, Inc. (Ei), from 1988-1998, and he oversaw the company's incorporation into Elsevier Inc. John received his doctorate in Information Science from Rutgers University in 1982. He is a graduate of Columbia University, where he earned an M.S. in Library and Information Science. He also holds an M.A. in Religious Studies from the University of Iowa and a B.A. in Psychology from St. John's University. John has been active in the information profession through publications and presentations, and he maintains a number of professional affiliations, including among others: American Association of Publishers, Division of Professional and Scholarly Publishing; Board of Directors (1999 - 2002); CABI, Board of Directors (1998 - current); Ei Foundation Board of Directors (1998 - current).