



# INFORMATION SYSTEMS MANAGEMENT *Handbook*

JAE SHIM ♦ JOEL SIEGEL  
ANIQUE QURESHI ♦ ROBERT CHI



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# ABOUT THE AUTHORS

**Jae K. Shim, Ph.D.**, is a Professor of Business Administration and Computer Science at California State University, Long Beach. Dr. Shim received his Ph.D. degree from the University of California at Berkeley. He is the President of the National Business Review Foundation, a management and computer consulting firm. Dr. Shim has published about 50 articles in professional journals, including *Journal of Systems Management*, *Financial Management*, *Journal of Operational Research*, *Omega*, *Data Management*, *Management Accounting*, *Simulation and Games*, *Long Range Planning*, *Journal of Business Forecasting*, *Decision Sciences*, *Management Science*, and *Econometrica*. Dr. Shim has over 45 books to his credit and is a recipient of the Credit Research Foundation Outstanding Paper Award for his article on financial modeling. He is also a recipient of a Ford Foundation Award, Mellon Research Fellowship, and Arthur Andersen Research Grant. For over twenty years Dr. Shim has been an industrial consultant in the areas of information systems development and applications, corporate planning, modeling, business forecasting, and financial modeling.

**Joel G. Siegel, Ph.D., CPA**, is a computer consultant to businesses and Professor of Accounting and Information Systems at Queens College of the City University of New York. He was previously associated with Coopers and Lybrand, LLP, and Arthur Andersen, LLP. He served as a consultant to numerous organizations including Citicorp, International Telephone and Telegraph, Person-Wolinsky Associates, and the American Institute of CPAs. Dr. Siegel is the author of about 55 books. His books have been published by Prentice-Hall, Richard Irwin, McGraw-Hill, HarperCollins, John Wiley, Macmillan, Probus, International Publishing, Barron's, Glenlake, and the American Institute of CPAs. He has authored approximately 200 articles on business and computer topics. His articles have appeared in various journals including *Computers in Accounting*, *Decision Sciences*, *Financial Executive*,

*Financial Analysts Journal*, *The CPA Journal*, *National Public Accountant*, and *Practical Accountant*. In 1972, he received the Outstanding Educator of America Award. Dr. Siegel is listed in *Who's Who Among Writers* and *Who's Who in the World*. Dr. Siegel is the former chairperson of the National Oversight Board.

**Anique Qureshi, Ph.D., CPA, CIA**, is a computer consultant to companies and Associate Professor of Accounting and Information Systems at Queens College of the City University of New York. Dr. Qureshi has contributed chapters to books published by Prentice-Hall and McGraw-Hill. His articles have appeared in *Accounting Technology*, *The CPA Journal*, *National Public Accountant*, *Management Accountant*, and *Internal Auditing*. Dr. Qureshi is proficient in programming languages such as C/C++, Java, and Visual Basic. Besides having expertise with many software packages, he maintains the Web page for the Department of Accounting and Information Systems at Queens College.

**Robert T. Chi, Ph.D.**, is Associate Professor of Information Systems at California State University at Long Beach. He received his Ph.D. in Management Science and Information Systems from the University of Texas at Austin. His experience includes artificial intelligence applications, data communications, decision support systems, and executive information systems. Dr. Chi has coauthored a computer book for Prentice-Hall. He has published in the *Journal of Management Information Systems*, *Journal of Expert Systems with Applications*, *Journal of Operational Research*, *International Journal of Intelligent Systems*, *Journal of Knowledge Based Systems*, and *Journal of Decision Support Systems*.

# WHAT THIS BOOK WILL DO FOR YOU

The *Information Systems Management Handbook* is a valuable reference for information systems professionals. Information systems professionals include anyone whose job responsibilities require applying computing and communications technologies to manage information.

Information is data that has been processed and is useful to an organization. Processing of data means that it has been collected, processed, transmitted, and stored. It must also be retrieved and distributed among users of the organization. Information is a resource, like energy, capital, personnel, raw materials, etc. Its management is vital to the operation and management of organizations.

This book covers information systems in all phases of business and in all functional areas to analyze and solve business problems in the “real world.” The objective of this handbook is to provide information systems professionals with an up-to-date compendium of current technologies and applications. New and emerging trends are also considered. This book is designed as a practical “how-to” guide. We provide extensive examples to illustrate practical applications. The tools and techniques in this handbook can either be adopted outright or modified to suit your needs. Checklists, charts, graphs, diagrams, report forms, schedules, tables, exhibits, sample documents and computer printouts, illustrations, and step-by-step instructions enhance the handbook’s practical use. Answers to commonly raised questions are also given.

The combination of growth in systems, the rapid changes in technology, and the complexity of organizations has expanded the scope of the duties of information systems professionals. The role of information systems is no longer limited to supporting the organization. Information systems are expected to transform the organization. The investment of information technology should not only increase efficiency and reduce costs, but should also lead to new markets, new products, and new ways of doing business.



Information systems professionals must prepare themselves for these new challenges. The increased knowledge requirements place a heavy workload of readings on the information systems professional. This handbook serves to reduce that workload by providing information systems professionals with a compact yet comprehensive resource.

Information systems management requires the executive to be knowledgeable about both the technology and its management. Special consideration has been given to balancing these two needs. We cover both traditional and emerging issues in technology and management of that technology. Traditional technology topics, such as data communications, information systems security, network capacity planning, and data management in a distributed environment are presented. Emerging management issues, such as business reengineering, outsourcing, electronic commerce, data warehousing, voice communications, total quality management, and the legal environment of information systems are also included.

Planning is critical in effective information systems management. Information systems are not simply a collection of software, hardware, and personnel. Information systems should fit an organization's strategy and structure. The systems development life cycle has to be considered. Therefore, this handbook gives special emphasis to strategic and operational planning information systems, including guidance for estimating current requirements and forecasting future demands. Help desks, as well as planning process and plan contents, are discussed. The various methods for pricing information services are also presented.

Factors that contribute to an "optimal" structure and the extent of centralization/decentralization are included. This is especially important in the contemporary telecommunications environment. In the past, this technology was primarily based on central mainframes and underdeveloped communications equipment. The technological constraints severely restricted management's ability to dictate the distribution of information systems. A decentralized organization, for example, had to accept a centralized information system. Recent advances in microcomputers and network computers have made it easy for management to select the degree of such distribution. Management philosophy, rather than technology, is now the primary factor that influences the distribution of information systems.

This handbook offers guidance on improving information systems productivity. Improving productivity means increasing or improving output for a given level of input. Potential benefits of improving productivity are sig-

nificant. Also covered are causes of low productivity, along with potential means of improving the level and quality of output, such as quality circles, suggestion systems, rewards, recognition, etc., are discussed.

Quality control, including total quality management, is an important part of information systems management. Anyone who manufactures a product or offers a service must have a quality control function to ensure that the product or service conforms to standards. Quality control considerations are explicitly considered in this handbook.

The book applies to all sizes of organizations, whether they are large, medium-sized, or small. It is a working guide as to what to look for, what to do, and how to apply what you know.

In conclusion, the *Information Systems Management Handbook* will serve as a valuable reference and a handy guide for daily use. It is comprehensive, informative, authoritative, and practical. The material in this handbook is clear, concise, and useful. The uses of this book are as varied as the topic areas presented.

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