管理科学专业

MBA专业精品教材

世界经济
管理文库

罗伯特A. 舒尔特海斯
(Robert A. Schultheis)

玛丽·萨默
(Mary Summer)　　/著

Cut On Dotted Line

管理
信息系统

（英文版·第4版）

Management Information Systems

(FOURTH EDITION)

机械工业出版社

McGraw-Hill

MBA 专业精品教材

管理信息系统

（英文版·第 4 版）

Management Information Systems

(FOURTH EDITION)

罗伯特 A. 舒尔特海斯

（Robert A. Schultheis）

/著

玛丽·萨默

（Mary Summer）

机械工业出版社

凡购本书，如有缺页、倒页、脱页，由本社发行部调换

出版者的话

在全球经济一体化的激烈竞争格局中，中国正处于前所未有的经济与产业结构调整与转型的关键时期。飞速发展的社会与错综复杂的变革要求我们的经济与管理水平有一个飞跃。

为了能让读者系统地学习、借鉴国际上先进的管理理论、方法和手段，机械工业出版社从一些世界著名出版公司引进了一批一流品质的经济管理名著，组成了这套《世界经济管理文库》。其中所选图书均为当前国际上最为流行和权威的教材，大部分多次修订重版，有的多达十几版。作者都是哈佛、芝加哥、斯坦福等著名商学院的教授，使您足不出国，便可领略世界知名学府的文化精粹。

为了给中国的MBA教学提供一套完整的MBA系列教材，继与清华大学经管学院、加拿大毅伟管理学院合作共同策划出版的《国际通用MBA教材》与《国际通用MBA教材配套案例》丛书之后，近期，我社又和中国人民大学工商管理学院联手，共同策划本套《MBA专业精品教材》丛书。《国际通用MBA教材》涉及了所有的MBA核心课程，而本套《MBA专业精品教材》包括了MBA各个不同专业方向的全部课程及选修课程，它为各类工商管理学院培养更适

合社会需要的专门管理人才提供了丰富的教材资源库。全套丛书按专业分类，包括经济学、战略管理与组织、管理科学、财务与金融管理、会计、市场营销、商务技能等7大系列、60多个品种。

为了保持原作的原汁原味，这套丛书是以英文原版的形式出版的。这样可以避免因翻译而造成的歧义和出版时间的滞后，以便让读者能亲身体味原作者的精彩文风，并在第一时间洞悉经济管理学科各个领域的最新学术动态。

由于作者所处的社会、政治环境的不同，书中所述难免有不妥之处，请读者在阅读时注意比较和鉴别，真正消化吸收其中的精华，这也就达到了出版者出版本套丛书的目的。我们真诚地希望这套《世界经济管理文库》的出版，能为提高中国的MBA教学水平、推动中国的改革开放事业尽点绵薄之力。

机械工业出版社
1998年8月

序　言

当前，我国正处于知识经济初露端倪的时代,管理科学已经成为兴国之道，这给我国工商管理教育带来新的机遇与挑战。今年9月，又将有4000余名工商管理硕士生满怀着理想与希望进入各大学学习。一大批机关分流干部与经贸委系统的管理人员也要经过入学考试，在职学习并申请工商管理硕士学位。如何办好工商管理硕士（MBA）项目，为国家和社会培养出一批又一批符合市场需求的高质量的工商管理硕士，是全国可以授予工商管理硕士学位的56所院校所共同考虑与研究的问题。

在这里，MBA课程设计是成功的关键环节之一。记得在1984年的夏天，在加拿大国际开发总署的资助下，加拿大蒙特利尔大学、麦吉尔大学、康克迪亚大学以及魁北克大学蒙特利尔分校的教授们为中国人民大学的年轻教师讲授了管理经济学、会计学、管理学以及管理信息系统等MBA课程。在1985年夏天，加拿大的教授们又讲了另外4门MBA课程。当时，我并没有真正了解这些MBA课程与我过去所学的管理课程在实质上有多大的区别，也没有理解这些课程之间的内在联系，对于MBA核心课与选修课以及专业的主修与副修的区别与联系更是知之甚少，只是感

到加拿大教授的教学在内容和手段上与我们传统方式有较大的区别。1988年初，我到加拿大麦吉尔大学管理学院研修后，才真正对MBA的课程设计有所了解。此后，我先后到美国布法罗纽约州立大学管理学院与澳大利亚悉尼科技大学管理学院任教，又对MBA课程之间的内在联系有了更切身的体会。为了更好地了解美国MBA教育的新潮流，今年6月，我又随中国管理学院院长代表团考察了美国著名管理学院，出席了在芝加哥举办的"全球管理教育论坛会"。

综观北美的工商管理教育，在全球化、信息化与整合化的挑战下，实在是强调其实用性。纵然有的教授学者看重自己的象牙宝塔，勾画着纯理论的模型与理论。但在MBA的教育上，美国现有的750余所管理学院，特别是为美国管理学院联合会（The American Assembly of Collegiate School of Business，AACSB）所承认的300余所管理学院，培养目标明确，课程设计体现出其为社会需求与市场服务的宗旨，没有半点的含糊。美国著名的管理院校明确自己的教育使命，把视野放在全球与创新上，不断地迎接新的挑战，将所授的知识与社会的实际需求密切地结合起来，期望培养出真正的高质量的管理人才。例如，哈佛商学院明确地提出，该院的使命是"影响企业的实践"，培养全面的管理者（general managers），指出"我们要对企业的领导人在如何完成他们的工作上，即在他们如何提出与解决问题、确定战略方向和采取行动上施加重大的影响。同时，我们鼓励从实践中获得反馈，以便了解这些领导人如何在实践中应用我们的思想与知识，从而进一步发展与提炼我们的理论与知识。"麻省理工学院斯隆管理学院的使命"尊重有用的工作"，"为产业提供服务"，提出"作为管理教育与研究的世界领导者，麻省理工学院斯隆管理学院要培养能在快速发展与高度竞争的全球企业环境中获得成功的管理者。当前持续不断的技术创新已成为每个产业各个方面生产力和增长的关键，因此，这正是我们的时机。"伯克利加利福尼亚大学商学院从学院的成立始，就将教育的重点放在国际与企业家的舞台上，研究迅速发展的全球经济，为学生提供创新的学习机会。

根据上述的使命，美国著名的管理学院教育模式基本上有三大流派：一是以哈佛商学院为代表的培养全面管理人员的模式。斯坦福商学院的培养方式也是属于这种模式。他们培养的是全面的MBA，而不是专业化的MBA，通过

为学生提供必要的专业知识，使之毕业以后成为企业或其他组织中高层的有效的全面管理者，而不是职能部门的管理人员。二是以芝加哥大学管理学院为代表的培养专业管理人员的模式，其方向是为企业和组织培养专业的管理人员。斯隆商学院亦属于这种类型。三是介于两者之间的模式。美国多数管理院校采用的是这种培养目标，如伯克利商学院、西北大学的凯洛格商学院、洛杉矶加州大学、康乃尔大学管理学院以及杜克大学管理学院等。因此，各个管理学院在其课程设计上有着不同的战略重点。

哈佛商学院MBA课程设计的思路是"在日益增长的全球商务环境中，提高学生进行战略性与关键性思考的能力。"斯坦福商学院MBA课程设计的思路是"确保学生获得管理运行的知识，了解企业运行的经济、政治和社会环境，以及掌握作为管理者所必须的行为技能。"同时，"MBA项目也要设计成为一种可以终身学习的模式。这样，今天的学生将在今后贯穿其事业的复杂而快速变化的管理世界中有能力自如地作出调整。"斯隆管理学院MBA课程设计的思路是"对日益增长的市场全球化和密集的竞争正在改变工作性质的这一事实作出反映。"哥伦比亚商学院MBA课程设计的思路是"让学生掌握作为管理者能够在全球经济中进行有效竞争所需的基本学科与应用的职能领域。"

总之，这些学院在设计MBA课程时，首先，考虑的是学生要了解全球的竞争环境。其次，考虑学院所在的地域和环境。例如，哥伦比亚商学院极其强调该院处于纽约这个金融中心，其战略重点是国际、金融和纽约，培养出的学生要适合在国际大城市从事金融工作。因此，该学院在课程设计上就对财务与金融等相关课程有所侧重。再次，考虑学院自身资源的特点，如斯隆管理学院在技术管理上设置较多的课程，而哈佛商学院则在全面管理与竞争战略课程上有所突出。最后，要使学生获得相关的专业知识，了解研究与实践的前沿，如企业伦理、领导精神、创新、以及企业与政府关系等。

在课程设计的内容上，美国管理学院根据自己的情况，多按传统划分为核心课程与选修课程。课程内容上并不划一，门数上也多少不等。在学习核心课之前，学生要预先学习计算机应用和技能、商务沟通以及基本数量分析方法等课程。在核心课上，各学院基本上开设了经济学、统计或数据分析、会计、财务、市场营销、运作管理、组织行

为、人力资源管理、战略管理以及公共管理等课程。当然，也有例外。芝加哥大学管理学院就不设置核心课。在选修课程上，除哈佛商学院外，各学院基本上设置了专业，如管理经济学（Managerial Economics）、会计（Accounting）、财务管理（Financial Management）、税收（Taxation）、管理科学（Management Science）、信息系统（Information Systems）、市场营销（Marketing）、组织行为学（Organization Behavior）、人力资源管理（Human Resource Management）、国际商务（International Business）、战略管理(Strategic Management)以及公共管理(Public Management)等。最具特色的是斯隆管理学院的课程设计。该学院除了设计出体现管理基础原理和技能的六门核心课以外，根据学生今后所要从事的工作方向，创造性地设计自我管理模块(Self Managed Track)与管理模块（Management Track）。自我管理模块包括应用宏观与国际经济学、财务管理或财务理论、信息技术、产业关系与人力资源管理、运作管理导论和市场营销导论等六门课。如果学生希望将来从事较为全面的管理工作，则可以选择自我管理模块。而学生希望成为更专业的管理人员，则可以选修管理模块。在这个模块中，有六个分模块，即战略管理与咨询（Strategic Management and Consulting）、新产品与风险开发(Product and Venture Development)、信息技术与企业变革(Information Technology and Business Transformation)、金融工程(Financial Engineering)、财务管理(Financial Management)以及制造与运作(Manufacturing and Operations)。这种设计打破传统职能性课程的框架，切实反映市场的声音，力图符合具体职业领域的要求，使学生能在今后的工作中更快地进入某个具体的管理角色。

我国工商管理硕士教育总体来说，还处在试点阶段之中。在课程设计上，全国工商管理硕士教育指导委员会规定了核心课的指导大纲。经过多年的建设，MBA核心课的教材已经初步满足教学的需求。当然，在质量上还有待进一步完善。随着MBA教学的深入发展，一些院校在培养全面管理人员的基础上，进一步根据自己院校的区域环境和办学条件，探索开设专业方向，以便培养出更适合社会需要的专门管理人才。这就对课程设计提出了新的要求，希望有更专门化的课程支持不同的专业方向。这不仅对教师的科研提出了更高的要求，而且对教材的建设也提出新的

需求。教材不足便是当前工商管理教育中最大的困惑之一。

为了满足工商管理专业方向的发展以及相应的课程设计，在中国人民大学工商管理学院的策划下，机械工业出版社推出了英文版的《MBA专业精品教材》，填补教学用书中空白，力图缓解MBA各专业教学上的急需。在这套丛书中，我们精心选择了北美在经济学、战略管理与组织、管理科学、财务与金融管理、会计、市场营销以及商务技能等7个专业的英文版教材，期望对国内各管理学院所开设的管理专业有所帮助。同时，有志于学好MBA某个专业的管理人员、研究生甚至本科生也可以通过系统地学习该专业所列的教材，掌握个中三味。

当然，在学习西方的管理理论与经验时，需要认真对待其内在的文化底蕴。正如同样是绘画，西方的绘画注重光线与颜色，体现出一种形象思维，而中国画则注重线条，体现出内在的逻辑思维，从而表现出中国文化与西方文化的差异。本世纪初以来，我国知识分子一直在研究与吸收西方文化，力图西学中用。正如有人所讲，学习的方法有三种形式，一是鸟瞰的方法，二是仰视的方法，三是平视的方法。鸟瞰者，持才傲物，看不起其他民族的文化，更看不起其他民族的管理理念与方法。仰视者，自卑自弃，看不起自己民族的文化，盲目追求其他民族的管理理念与方法。要真正作到西学中用，而不是仅仅学到一些皮毛的话，则需要运用平视的方法，拉开距离，去观察与学习世界上一切优秀的管理理念与方法。今天，我们利用西方的管理理论与实践，是为了更合理地推动中国的管理教学与科研，促进中国的管理实践，切不可邯郸学步，而是真正做到"以我为主、博采众长、融合提炼、自成一家"。

徐二明 博士

中国人民大学管理学教授
中国人民大学工商管理学院院长
全国MBA教育指导委员会委员
1998年盛夏于北京

PREFACE

THE APPROACH

Management Information Systems: The Manager's View, fourth edition, represents a managerial approach to information systems concepts and applications. It is a cliché to say that computers have become pervasive in every aspect of our lives. Networks, including the Internet, have made computer facilities almost ubiquitous. As a result managers have a major responsibility for determining their information system needs and for designing and implementing information systems that support these needs. At the same time computer technologies have created opportunities for managers to improve customer service, reduce costs, improve productivity, increase market share, and increase profits.

Students who are majoring in general management, human resource management, accounting, marketing, production, finance, and management information systems (MIS) should understand how information systems technologies support key organization functions, what information resources are available to them, and how MIS and other professionals are involved in the systems development process.

This book serves the needs of graduate and undergraduate students enrolling in their first MIS course who may not yet have decided to become MIS majors. The book also provides MIS majors with the user-manager's viewpoint of information systems. The book also supports introductory information systems courses required by many other programs, such as political science, allied health, and educational administration.

WHY WE WROTE THIS BOOK

Many students who enroll in entry-level management information systems courses are not MIS majors. These students are drawn to an entry-level course for many reasons. Some are required to take the course as part of their major fields in the hope that they will then understand how information systems can be used in their disciplines. Most students majoring in a discipline within a school of business are required to take an introductory management information systems course. Others take the course because they wish to complete several MIS courses to make themselves more marketable. Some enroll because they are simply interested in computers and hope that they will find the study of information systems interesting.

For whatever reason, the field of management information systems is always popular with students who are not MIS majors. Most of these students begin their study of the field by enrolling in the introductory management information systems course at either the undergraduate or graduate level. Nearly all of these students are studying to become managers: business managers, managers of governmental agencies, managers in the music industry, managers in the health industry, managers in the agricultural industry—in fact, managers in a broad array of industries and disciplines.

This book was written to serve these types of students. Thus we designed the text to do the following:

1. Emphasize how managers can and should be involved with systems planning, development, and implementation.
2. Emphasize what information systems resources are available to managers for decision support.
3. Emphasize how these resources can be used at all levels of decision making and in the major functional management areas.
4. Show how information technology can be used to support organization strategy without overwhelming students with technical details.

WHAT'S NEW IN THIS EDITION

This edition incorporates a number of additions and modifications to the third edition.

Updates for New Technology and Practices

Management information systems is an extremely dynamic area of study. It should be no surprise to find, therefore, that in the three years since the third edition, numerous changes have taken place in computer hardware, software, and information systems theories, practices, and technologies. A thorough revision and updating of the third edition was necessary to incorporate these changes. For example, net PCs, WebTV, and convergent computers; digital video disks; intranets, extranets, the Internet, and the Web; data warehousing, data marts, and online analytical processing; and hypermedia, universal databases, push technology, and computer telephony are just a few of the new topics that have been added to the fourth edition.

In addition, many topics have received increased space in the text because they have received increased attention in the industry. For example, collaborative computing, desktop conferencing, e-mail, wireless computing, client/server computing, parallel processing, multiuser operating systems, multimedia systems, EDI and electronic commerce, and imaging systems are just a few of the topics that received more attention in this edition than in the last.

New concepts are also included in this revision. In Chapter 4, a new chapter on reengineering, you will learn how companies are reengineering business processes in order to cut bureaucracy and improve their ability to serve customer needs. An entire chapter (Chapter 3) is devoted to the strategic uses of information technology. This chapter includes a discussion of information partnering, the electronic marketplace, and capabilities-based competition. It also includes an analysis of the risks and impacts of strategic information systems. Decision support systems and expert systems have been combined into one chapter (Chapter 12) so that these concepts are integrated.

In Chapter 13, Information Systems Planning, three strategies managers can use to determine their information system needs are described, analyzed, and compared. These are critical success factors, business systems planning, and ends/means analysis. In Chapter 14, "Systems Analysis and Design," there is a new case study that involves the analysis of business processes in a financial services company. In addition, Chapter 15 has been reorganized to focus on the analysis of alternative design options for systems development.

New Chapters

Five new chapters have been added to the text. These include a chapter on business process reengineering (Chapter 4); distributed systems, the Internet, and office communications (Chapter 9); applications of operational information systems to common business areas (Chapter 10); applications of tactical and strategic information systems to common business areas (Chapter 11); and alternative application development approaches (Chapter 15). Additionally, the chapter on the introduction to information systems has been substantially rewritten.

In past editions, we had dedicated four chapters to a discussion of how information systems affect the four functional business areas of accounting and finance, marketing, production, and human resources. Many instructors had difficulty in using all of these chapters in a semester course. In order to provide instruction in the application of information systems to the four functional areas in a more concise fashion, we reorganized the content of the four chapters into two: "Applications of Operational Information Systems to Business" (Chapter 10) and "Applications of Tactical and Strategic Information Systems to Business" (Chapter 11). This reorganization should permit instructors to provide an overview of how information systems affect common business functions within a semester time constraint.

More Problems and Cases

The number of questions at the end of each chapter has been increased when needed to reflect updated technology and issues. The number of cases found at the end of most chapters has also increased.

New Integrated Cases

A new series of comprehensive, integrated cases, all based on the same firm, has been added, with one case appearing at the end of each part of the text.

These cases allow students to integrate what they have learned from the chapters that precede the cases.

WHAT THIS BOOK IS ALL ABOUT

The most important activity in which managers engage is decision making, and many managers must make decisions in a very competitive environment. This text focuses on how information systems support managerial decision making. Specifically, the text is organized around the three major levels of managerial decision making: operational decisions, tactical decisions, and strategic planning decisions. This organizational theme is followed throughout the text to focus students on the types of decisions that managers must make. The book also emphasizes how information systems help managers provide their organizations with a competitive advantage. This approach recognizes that the design and use of information systems have become part of every manager's job and that information systems planning is no longer the sole province of information systems professionals.

Typical introductory texts in management information systems present the field from the specialist's view. Even many texts that assume a management perspective still present many information systems topics from the traditional, specialist viewpoint. This text overcomes these limitations by providing the following elements.

A user-manager perspective. Many texts cover the systems life cycle from the traditional systems analyst perspective instead of from a user-manager perspective. They provide detailed descriptions of the systems analyst's role in requirements definition, design, and implementation rather than explaining how the user-manager should be involved in these cycle activities. In short, many texts lead students through the various stages of the systems life cycle as if they were expected to become professional systems analysts. This book leads students through the cycle expecting them to become functional area managers.

A managerial emphasis. Many texts present technical hardware and software concepts in too detailed a manner for students who are not MIS majors. The underlying criterion for selecting the content

for this text was, Does the manager need to know it? Thus even in the chapters that cover computer hardware, computer software, database management systems, and communications systems, the overriding concern is, What does the manager need to know about these topics? We believe that students will find these chapters interesting and easy to read. We also believe that students will appreciate that these chapters continuously refer to why managers need to know the technical concepts presented and provide many examples of how managers can use technical information in decision making.

Practical, management-oriented cases. Many texts do not provide enough problems and cases that place students in the role of user-managers and ask them to use information systems skills and concepts. This text provides many problems and cases in which students must assume the role of managers and make decisions about information systems problems. Some of these problems and cases are software supported; that is, they can be used in conjunction with templates or data files contained on the Instructor CD-ROM that is available from the publisher or from the text's Web site. In addition to the end-of-chapter cases, the text also includes five integrated, comprehensive cases involving experiences at one company following each part of the text.

Managerial coverage. Many introductory texts provide a survey of information systems topics. Thus the texts really are short systems courses. This text selects information system topics on the basis of their importance to the manager. Rather than providing a survey course for majors, this text helps managers understand information systems concepts and applications.

The integration of information theory and practice. Major information management theories important to the manager are covered. These include

1. Hammer's framework for categorizing the impact of information systems (IS)—efficiency, effectiveness, and transformation (Chapter 4).
2. Anthony's paradigm of decision making—operational, tactical, and strategic decisions (Chapter 1).

3. Nolan's stage assessment for the analysis of the evolution of information systems (Chapter 1).

4. Keen's theories of decision support systems design (Chapter 12).

5. Buchanan and Linowes's concept of distributed data processing (Chapter 16).

6. Porter's analysis of competitive strategy (Chapter 3).

7. Porter and Millar's value chain analysis of organizational activities (Chapter 3).

8. Rockart's critical success factors (Chapter 13).

9. Gremillion and Pyburn's framework for evaluating systems development alternatives (Chapter 15).

10. McFarlan's portfolio approach to evaluating the risks of systems development projects (Chapter 15).

11. Information partnering and electronic marketplaces (Chapter 3).

12. Group decision support systems and electronic meeting systems (Chapter 12).

13. Reengineering business processes (Chapter 4).

The book presents each theory or framework and then applies it to real information systems issues so students can develop an understanding of how to apply the theories to real-life situations.

New information technology. New information technology is presented throughout the text. Students will have opportunities to learn how new technology creates opportunities for an organization by providing a competitive advantage, by identifying new markets, by reducing costs, by improving customer service, or by improving productivity. To cite a few examples, students learn about data warehousing (Chapter 7), networks (Chapter 8), the Internet (Chapter 9), decision support tools (Chapter 12), executive information systems (Chapter 12), expert systems and artificial intelligence (Chapter 12), and computer-assisted software engineering tools (Chapter 14).

Microcomputer technology. The use of microcomputer systems to support management decision making has become commonplace. As a result information about the use of microcomputers and microcomputer software is integrated extensively throughout the text. The technology of microcomputers is first presented in Chapters 5 and 6. Microcomputer software used by managers is then presented in Chapters 6 and 7 as part of the database and communications systems chapters and again in the chapters pertaining to the functional business areas (Chapters 10 and 11).

The Internet. The Internet and all its features, including e-mail, newsgroups, file transfer, and the Web, are changing not only the information systems world but also the lives of nearly everyone. The impact of the Internet on organizations has been swift in coming and continues to grow. The effect of the Internet on organizations is included in almost every chapter and receives close attention in Chapter 9.

FEATURES

This text has numerous features of use to both teachers and students.

End-of-Chapter Questions

Each chapter ends with a series of short questions that are designed to measure student understanding of the facts and concepts presented in the chapter. Students will find that reading these questions before they read the chapter will help them focus on the important points developed in the chapter. They also will find that answering the questions after reading a chapter is an effective means of reviewing the content of the chapter. Teachers may use these questions as part of quizzes or examinations.

Following the review questions are a series of more complex questions that usually ask the students to compare or evaluate what they have learned. These questions are useful as discussion questions for a classroom session.

Problems

Like most instructors, we like to provide our students with many practical, hands-on activities. This text provides numerous practical problems and cases at the end of each chapter. A number of the problems are supported by software, in the form of data sets for data-based and spreadsheet templates for what-if problems. In many chapters students can choose among problems requiring use of spreadsheet software or database software.

Chapter Cases

Most chapters contain two to five cases for students to solve. These cases are primarily targeted to the content presented within the chapter. They require students to analyze organizational situations using the information from the chapter.

Integrated Cases

At the end of each part of the text is a comprehensive case that requires students to integrate what they have learned from the preceding chapters.

Examples and Manager's Memos

Most chapters contain many practical, management-oriented examples and cases. Most chapters also present current, real-life examples of information systems in Manager's Memos within the narrative.

Other Student Study Features

Student study skills are enhanced through an introduction to each chapter ("Manager's View"), a chapter summary ("Management Summary"), the highlighting of key terms ("Key Terms for Managers"), and the glossary of terms at the end of the text.

Text Style

The text is written in a clear, readable writing style with a "you" emphasis to help students relate to the concepts and ideas presented. Although many of the concepts presented are complex, the way in which they are presented is designed to be just the opposite.

How This Book Was Developed

This book was developed recognizing that the introductory information systems course often consists of large numbers of students, including majors and nonmajors. We have tested the content and sequence of the text and the problems and cases in our own classes. Our students provided important feedback that we used to revise the content, problems, and cases. However, the text was not based solely on our own perspective. Many faculty members throughout the country, both those who use the text and those who do not, reviewed the revision of the text continuously as it was developed.

Their pointed criticisms and suggestions improved the organization, content, and style of the text.

THE INSTRUCTIONAL MATERIALS PACKAGE

The instructional package consists of several components.

Text

The text consists of 17 chapters organized into five parts:

> Part I—Information Systems
> Part II—Computer System Resources
> Part III—Common Business Application Areas
> Part IV—Planning and Development of Information Systems
> Part V—The Management of Information Systems

Each chapter begins with "Manager's View," which describes why current and future managers need to learn the topics in the chapter. Each chapter closes with a summary, key terms, review questions and discussion questions, practical problems, and cases. A comprehensive case appears at the end of each part.

Instructor CD-ROM

An instructor CD-ROM containing all the files for the following list of supplements will be available to adopters of the text. Instructors will be able to run the PowerPoint show directly from this CD-ROM or view, edit, and print out individual pages or copies of the following supplements.

Data files. Data files provide data sets and spreadsheet templates. The data sets are designed to be used by dBASE IV; however, they can be read by many other microcomputer database management systems. The spreadsheet templates can be read by Excel, Lotus 1-2-3, 1-2-3 clones, or by any spreadsheet program that can read Excel files.

Instructor's manual. A companion instructor's manual prepared by Douglas Bock provides the following elements for each chapter:

Teaching suggestions. These provide various ideas for presenting each chapter and the integrated

cases, including suggestions for introducing topics, overcoming typical student learning problems, using the PowerPoint software and sequencing the topics.

Answers to chapter questions, problems, cases, and the integrated cases. Suggested answers to end-of-chapter exercises and integrated cases are provided on a chapter-by-chapter basis.

Assignment schedule. A suggested schedule for a semester course is included in the instructor's manual.

Suggestions for use of PowerPoint software. Suggestions for using the PowerPoint software for in-class lecture presentation are provided for each chapter.

Test bank. A third companion document prepared by Alan Carswell provides a series of true-false, multiple choice, and short answer questions for each chapter along with the suggested answers. A 50-question mid-term exam and a 100-question final exam are also provided.

Computest 4. A computerized testing package, Computest 4, allows you to select test questions, organize the questions in the order you want, and print them for exams.

PowerPoint classroom presentation software. PowerPoint slides prepared by Doug Bock that provide lecture notes for each chapter are available. You may want to adapt the slides to your needs and the needs and interests of your students. You may also wish to provide students with copies of the lectures by printing the outline view of the slide presentations.

Classroom video support. Thirteen videotapes are available from the Irwin Information Systems Video Library for use with this text. The videos cover the following topics: Introduction to Information Systems (Chapter 1), Business Process Reengineering (Chapter 4), Technology (Chapters 5-9), Multimedia Presentations (Chapters 5 and 6), Telecommunications (Chapter 8), Client/Server Computing (Chapter 9), Finance Systems (Chapters 10 and 11), Marketing Systems (Chapters 10 and 11), Manufacturing Systems (Chapters 10 and 11), Human Resource Management Systems (Chapters 10 and 11), Corporate Training Systems (Chapters 10 and 11),

and Information for the Retail Market (Chapters 10 and 11). The videotapes are all about 10 to 12 minutes in length and can be used to enrich and supplement regular classroom instruction.

Internet Support

Internet support for faculty and students is provided in several ways:

1. A Web page (http://www.mhhe.com/business/mis/schultheis) contains *additional cases* and *problems* for your use. Those of you who have used the text before will appreciate the problems from the previous edition that are found on the Web page. The Web page also contains *data files* needed for problems, lecture slide-show files, and case slide-show files.

2. Web *references* are provided at the end of each chapter so that you and your students can explore the topics in the chapter further on the Internet.

3. An e-mail address and link are provided for the authors so that you can contact them if you have questions or suggestions.

Sharad K. Maheshwari, Hampton University
Larry Meile, Boston College
Vincent Yen, Wright State University

A special thanks goes to our colleague, Douglas Bock, who prepared the integrated cases that appear at the end of each part of the text and who created the instructor's manual and PowerPoint software.

We would also like to thank the students at Southern Illinois University at Edwardsville who tested the text materials and provided us with many ideas for improvement.

Robert A. Schultheis
Mary Sumner