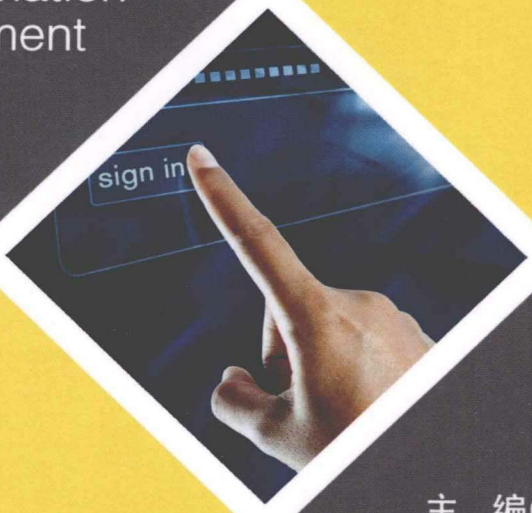
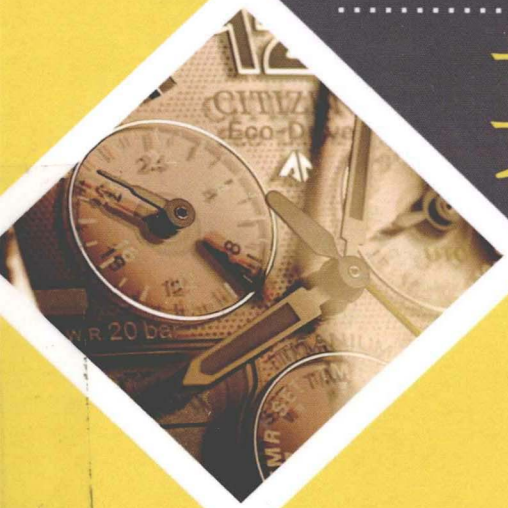
An Advanced English Course
For Information
Management



主　编◎吴尚义
副主编◎蒋春生　胡咏梅

信息管理专业英语教程



知识产权出版社
全国百佳图书出版单位

An Advanced English Course
For Information Management

信息管理专业英语教程

主　编◎吴尚义　副主编◎蒋春生　胡咏梅
编　者◎万静静　张立奇　徐　芳　郝　琳　段　睿

知识产权出版社
全国百佳图书出版单位

内容提要

本教程按照信息管理专业要求的职业功能模块收集了最新的英文原版资料，既能让学生了解最新专业领域的动态，同时也提高了学生的英语运用能力，包括专业英文资料阅读、英文写作以及英语口语交流等能力。此教程既可作为信息科学、信息管理等相关专业的英语教程，也可提供给从事本专业的科研、教学和管理人员自学使用。

责任编辑：国晓健

图书在版编目（CIP）数据

信息管理专业英语教程/吴尚义主编. —北京：
知识产权出版社，2013.1
ISBN 978-7-5130-1174-7

Ⅰ.①信… Ⅱ.①吴… Ⅲ.①信息管理—英语—高等
学校—教材 Ⅳ.①H31

中国版本图书馆 CIP 数据核字（2012）第 061265 号

信息管理专业英语教程

XINXI GUANLI ZHUANYE YINGYU JIAOCHENG

吴尚义　主编　蒋春生　胡咏梅　副主编

出版发行：知识产权出版社

社　　址：北京市海淀区马甸南村 1 号　　邮　　编：100088
网　　址：http://www.ipph.cn　　邮　　箱：bjb@cnipr.com
发行电话：010-82000893 转 8101　　传　　真：010-82005070/82000893
责编电话：010-82000860 转 8385　　责编邮箱：guoxiaojian@cnipr.com
印　　刷：知识产权出版社电子制印中心　　经　　销：新华书店及相关销售网点
开　　本：787mm×1092mm　1/16　　印　　张：10.75
版　　次：2013 年 1 月第 1 版　　印　　次：2013 年 1 月第 1 次印刷
字　　数：216 千字　　定　　价：32.00 元

ISBN 978-7-5130-1174-7/H·078（4099）

出版权专有　侵权必究

如有印装质量问题，本社负责调换。

编者的话

现代社会是一个信息高度发达的社会，信息科学技术的飞速发展使得信息技术与管理的关系日益紧密，也日趋融合。同时，随着全球一体化经济的发展，企业及各类管理部门对能够运用英语进行信息化建设的复合型开发和管理人才的需求不断激增。这种复合型人才不仅要掌握本专业的知识，还要精通英语，具备一定的听说能力，较强的读写能力，熟练地阅读本专业的英文书刊。基于这样一个需求，我们根据各高校信息科学与管理专业英语课程设置，编写了《信息管理专业英语教程》。

本教程按照信息管理专业要求的职业功能模块收集了最新的英文原版资料，既能让学生了解最新专业领域的动态，同时也提高了学生的英语运用能力，包括专业英文资料阅读、英文写作以及英语口语交流等能力。此外，本教程尤为强调学生的创新性以及批判性思维能力，通过一些话题的展开，充分调动学生独立思考的能力，培养创新意识，从而提高学生实际应用专业知识的能力。

本教程共十四个单元，每单元由一篇课文和一篇补充阅读组成，内容均选自国外原版专业资料，主要包括管理信息系统的简介、信息系统的应用、电子商务简介、信息技术与网络经济、决策支持系统、信息技术、信息领域相关法律等方面的知识。为方便学习者使用，我们在课文后整理出了单词、术语，并附有一些注释。

每单元后我们编排了一些练习，帮助学生巩固所学到的内容。第一部分练习为话题讨论（topics discussion），这部分习题的目的是提高学生专业领域的英语表达能力。此外，通过培养学生关注本领域热点话题并进行讨论，来提高学生的独立思考能力以及创新精神。练习中的词汇题部分（Fill in the blanks ）是帮助学习者巩固本单元所学到的词汇，翻译（Translation）和写作部分（Writing）则有效地帮助学生提高翻译和写作的能力。这些相关的练习题，可以供教师参考，或供学生自学。为了便于教学，本书练习配有参考答案，使用单位的教师如欲取参考答案，请发邮件到 taroljiang@hotmail. com。

本教程既可作为信息科学、信息管理等相关专业的英语教程，也可提供给从事本专业的科研、教学和管理人员自学使用。

本教程对教师而言，具有更大的可操作性。对学生而言，通过本教程的学习，不

仅能提高专业英语水平，而且也能极大地提升英语综合应用能力，顺利达到大学英语六级或研究生入学英语考试水平。

我们在此对本教程被选文章或文章段落的原刊出单位和机构及其作者表示诚挚的谢意。

由于编者水平有限，书中不妥及疏漏之处在所难免，恳请方家不吝指正。

编者

2011 年 9 月

试读结束，需要全本PDF请购买 www.ertongbook.com

Contents

SECTION I Management Information System ····· 1

Chapter 1 Introduction to the Management Information System ····· 1

Part One Text: Management Information System (MIS) Concept ····· 1

Part Two Further Reading: Role of MIS ····· 6

Chapter 2 The Study of Information Systems ····· 10

Part One Text: Information and Information Systems (I) ····· 10

Part Two Further Reading: Information and Information Systems (II) ····· 23

Chapter 3 The Imformation System Functions ····· 27

Part One Text: The Imformation System Function within an Organization ····· 27

Part Two Further Reading: The System Development Lifecycle ····· 37

SECTION II Information Technology ····· 40

Chapter 4 Introduction of Information Technology ····· 40

Part One Text: What is Information Technology ····· 40

Part Two Further Reading: Human – Computer Interaction ····· 53

Chapter 5 Fundamentals of Computers ····· 55

Part One Text: How Computers Work: Three Key Concepts ····· 55

Part Two Further Reading: The Development of the Computer ····· 63

Chapter 6 Software ····· 65

Part One Text: Sourcing Software ····· 65

Part Two Further Reading: The Information Technology Infrastructure Library ····· 71

Chapter 7 Network Server ····· 75

Part One Text: Network Technologies ····· 75

Part Two Further Reading: A Networked World ····· 81

SECTION III Application of MIS ····· 84

Chapter 8 Telephony and Wireless Multimedia ····· 84

Part One Text: Data Transmission ····· 84
Part Two Further Reading: Wireless Communication ····· 91
Chapter 9 Decision Support System ····· 94
Part One Text: What is a Decision Support System ····· 94
Part Two Further Reading: Levels of Decision Making ····· 102
Chapter 10 E – Commerce Systems ····· 105
Part One Text: Electronic Commerce: The Second Wave ····· 105
Part Two Further Reading: The future of E-commerce ····· 116
Chapter 11 Supply Chain Information System Management ····· 119
Part One Text: What is Supply Chain Information System Management ····· 119
Part Two Further Reading: SCIS Supporting Technologies ····· 129
Chapter 12 E – government ····· 132
Part One Text: E – government: Definitions and Related Concepts ····· 132
Part Two Further Reading: The Status of E – government ····· 139
SECTION IV MIS and the Law ····· 143
Chapter 13 IT and Society ····· 143
Part One Text: The Information Society ····· 143
Part Two Further Reading: Reliability and Safety ····· 150
Chapter 14 MIS and the Law ····· 153
Part One Text: Computing and the Law ····· 153
Part Two Further Reading: Computer Misuse Act and Data Protection Act ····· 159

SECTION I Management Information System

Chapter 1 Introduction to the Management Information System

Part One: Text

Management Information System (MIS) Concept

The concept of the MIS[1] has evolved over a period of time comprising many different facets of the organizational function. MIS is a necessity of all the organizations. The initial concept of MIS was to process data from the organization and present it in the form of reports at regular intervals.[2] The system was largely capable of handling the data from collection to processing. It was more impersonal, requiring each individual to pick and choose the processed data and use it to his requirements.[3] This concept was further modified when a distinction was made between data and information. The information is a product of an analysis of data. This concept is similar to a raw material and the finished product. What are needed is information and not a mass of data. However, the data can be analyzed in a number of ways, producing different shades and specifications of the information as a product. It was, therefore, demanded that the system concept be an individual-oriented, as each individual may have a different orientation towards the information.[4] This concept was further modified, that the system should present information in such a form and format that it creates an impact on its user, provoking a decision or an investigation. It was later realized then even though such an impact was a welcome modification, some sort of selective approach was necessary in the analysis and reporting.[5] Hence, the concept of exception reporting was imbibed in MIS.

The norm for an exception was necessary to evolve in the organization. The concept remained valid till and to the extent that the norm for an exception remained true and effective. Since the environment turns competitive and is ever changing, fixation of the norm for an exception becomes a futile exercise at least for the people in the higher echelons of the

organization. [6] The concept was then evolved that the system should be capable of handling a need based exception reporting. This need maybe either of an individual or a group of people. This called for keeping all data together in such a form that it can be accessed by anybody and can be processed to suit his needs. The concept is that the data is one but it can be viewed by different individuals in different ways. This gave rise to the concept of database, and the MIS based on the database proved much more effective.

Over a period of time, when these conceptual developments were taking place, the concept of the end computer user using multiple databases emerged. This concept brought a fundamental change in MIS. The change was decentralization of the system and the user of the information becoming independent of computer professionals. When this becomes a reality, the concept of MIS changed to a decision making system. The job in a computer department is to manage the information resource and leave the task of information processing to the user. The concept of MIS in today's world is a system which handles the databases, provides computing facilities to the end user and gives a variety of decision making tools to the user of the system.

The concept of MIS gives high regard to the individual and his ability to use information. An MIS gives information through data analysis. While analyzing the data, it relies on many academic disciplines. These include the theories, principles and concepts from the Management Science, Psychology and Human Behavior, making the MID more effective and useful. These academic disciplines are used in designing the MIS, evolving the decision support tools for modeling and decision-making.

The foundation of MIS is the principles of management and its practices. The concept of Management Information System can be evolved for a specific objective if it is evolved after systematic planning and design. It calls for an analysis of a business, management views and policies, organization culture and the management style. The information should be generated in this setting and must be useful in managing the business. This is possible only when it is conceptualized as a system with an appropriate design. The MIS, therefore, relies heavily on the systems theory offering solutions to handle the complex situations of the input and output flows. It uses theories of communication which helps to evolve a system design capable of handling data inputs, process, and outputs with the lest possible noise or distortion in transmitting the information form of a source to a destination. It uses the principles of system Design, Viz., an ability of continuous adjustment or correction in the system in line with the environmental change in which the MIS operates. Such a design helps to keep the MIS tuned with the business managements needs of the organization.

The concept, therefore, is a blend of principle, theories and practices of the Management of Information and System giving rise to single product known as Management Information System (MIS). The Physical view of the MIS can be seen as an assembly of several subsystems based on the databases in the organization. These subsystems range from data collection, transaction processing and validating, processing, analyzing and storing the information in databases. The subsystem could be at a functional level or a corporate level. The information is evolved through them for a functional or a department management and it provides the information for the management of business at the corporate level.

The MIS is a product of a multi-disciplinary approach to the business management. It is a product which needs to be kept under a constant review and modification to meet the corporate needs of the information. It is prescribed a product design for the organization. The MIS differs since the people in two organizations involved in the same business. The MIS is for the people in the organization. The MIS model may be the same but it differs greatly in the contents. The MIS, therefore, is a dynamic concept subject to change, time and again, with a change in the business management process. It continuously interacts with the internal and the external environment of the business and provides a corrective mechanism in the system so that the change needs of information are effectively. The MIS, therefore, is a dynamic design and it is developed considering the organizational fabric, giving due regard to the people in the organizational management functions and the managerial control.

The MIS model of the organization changes over a time as the business passes through several phases of developmental growth cycle. It supports the management of the business in each phase by giving the information which is crucial in that phase. Every has critical success factors in each phase of growth cycle and the MIS model gives more information on the critical success factors for decision making.

Words and Expressions

evolve [i'vɔlv] v.

1. work out 发展

2. undergo development or evolution 演变；进化

facet ['fæsit] n.

1. a distinct feature or element in a problem 方面

2. a smooth surface (as of a bone or cut gemstone) 小平面，刻面

impersonal [im'pəːsənəl] adj.

1. not relating to or responsive to individual persons 客观的

2. having no personal preference 不受个人情感影响的

modify [ˈmɔdifai] v. cause to change; make different; cause a transformation 修改，更改

analysis [əˈnæləsis] n. the abstract separation of a whole into its constituent parts in order to study the parts and their relations 分析，解析

comprise [kəmˈpraiz] vt. be composed of; include or contain 构成，包含

echelon [ˈeʃəlɔn] n.

1. rankin an organization 级别

2. a diffraction grating consisting of a pile of plates of equal thickness arranged stepwise with a constant offset 梯次编队

orientation [ɔːriənˈteiʃən] n. position or alignment relative to points of the compass or other specific directions 适应，定位，倾向

provoke [prəˈvəuk] vt. evoke or provoke to appear or occur; provide the needed stimulus for 惹起，驱使

imbibe [imˈbaib] v.

1. take in, also metaphorically 饮，吸入

2. receive into the mind and retain 吸收

Special Terms

MID (Mobile Internet Device)	移动互联网设备
raw material	原材料，素材
finished product	成品
decision support	决策支持
business management	企业管理，商业管理
subsystem	子系统
data collection	数据收集
transaction processing	事务处理
corporate level	企业层面
functional level	功能级
organization culture	组织文化
management style	管理方式
appropriate design	绿色设计
regular intervals	正则区间，定期

试读结束，需要全本PDF请购买 www.ertongbook.com

Notes to the Text

1. MIS（管理信息系统—Management Information System）系统，是一个由人、计算机及其他外围设备等组成的能进行信息的收集、传递、存贮、加工、维护和使用的系统。一个完整的 MIS 应包括：辅助决策系统（DSS）、工业控制系统（IPC）、办公自动化系统（OA）以及数据库、模型库、方法库、知识库和与上级机关及外界交换信息的接口。

2. The initial concept of MIS was to process data from the organization and present it in the form of reports at regular intervals. 管理信息系统最初是指把企业数据进行处理，并定期以报告的形式提交。

3. It was, therefore, demanded that the system concept be an individual-oriented, as each individual may have a different orientation towards the information. 因此，系统必须是面向个人，因为每个人对信息的取舍都会不同。

4. It was later realized then even though such an impact was a welcome modification, some sort of selective approach was necessary in the analysis and reporting. 人们后来才意识到，尽管 MIS 所作的概念调整对终端客户产生的影响是值得肯定的，但是，在进行信息分析以及报告时，仍然需要选择适合的方法。

5. Since the environment turns competitive and is ever changing, fixation of the norm for an exception becomes a futile exercise at least for the people in the higher echelons of the organization. 由于环境千变万化，充满了挑战，那些针对特例作出的固定规范至少对于该组织的高层人士来说没有任何用处。

Exercises

I. Topics Discussion

1. Give three reasons for using computer for MIS in the organization.

2. State which capabilities of a computer are used in MIS to create an impact.

3. If application science and MIS can be brought together, the MIS design would be realistic and useful.

II. Fill in the blanks with the words or terms given below. Change the forms if necessary.

offer	facility	analyze	goals	organize
operate	costly	higher	format	responsibility
play	for	specific	make	search

Every person in the organization is a user of the MIS. The people in the organization

__1__ at all levels in the hierarchy. A typical user is a clerk, an assistant, an officer, an executive or a manager. Each of them has a __2__ task and a role to play in the management of business. The MIS caters to the needs of all persons. The main task of a clerk is to __3__ the data, make a statement and submit it to the __4__ level. A clerk can use the MIS for a quick search and reporting the same to higher level. An assistant has the task of collecting and __5__ the data, and conducting a rudimentary analysis of integrating the data from different and disciplines to __6__ it and make a critical comment if anything adverse is found.

The MIS __7__ the methods and __8__ to integrate the data and report the same in a proper __9__. An executive __10__ the role of a decision maker. He is in of __11__ and accountability a position of a planner and a decision __12__. He is responsible __13__ achieving the target and __14__ of the organization. The MIS provides facilities to analyze the data and offers the decision support systems to perform the task of execution. The MIS provides an action. oriented __15__.

III. Translate the following paragraph into Chinese.

The foundation of MIS is the management theory. It uses the principles and practices of management while designing the system, and gives due regard to the theory of organizational behavior. It considers the human mind as a processor of information. While designing the report format and forming communication channels, MIS takes into account the behavior of the manager as an individual and in a group. It gives due regard to the personal factors such as bias, thinking with a fixed frame of reference, risk aversion, strengths and weaknesses.

IV. Translate the following sentences into English.

MIS（管理信息系统），是一个以人为主导，利用计算机硬件、软件及其他办公设备进行信息的收集、传递、存贮、加工、维护和使用的系统，以企业战略竞优、提高收益和效率为目的，支持企业高层决策、中层控制和基层操作。

V. Write a 150-word composition according to the topic given: Potential impact of computers and MIS on management

Part Two: Further Reading

Role of MIS

The role of the MIS in an organization can be compared to the role of heart in the body. The information is the blood and MIS is the heart. In the body the heart plays the role of supplying pure blood to all the elements of the body including the brain.

The heart works faster and supplies more blood when needed. It regulates and controls the incoming impure blood, processes it and sends it to the destination in the quantity needed. It fulfills the needs of blood supply to human body in normal course and also in crisis.

The MIS plays exactly the same role in the organization. The system ensures that an appropriate data is collected from the various sources, processed, and sent further to all the needy destinations. The system is expected to fulfill the information needs of an individual, a group of individuals, the management functionaries—the managers and the top management.

The MIS satisfies the diverse needs through a variety of systems such as Query Systems, Analysis Systems, Modeling Systems and Decision Support Systems. The MIS helps in Strategic Planning, Management Control, Operational Control and Transaction Processing.

The MIS helps the clerical personnel in the transaction processing and answers their queries on the data pertaining to the transaction, the status of a particular record and references on a variety of documents. The MIS helps the junior management personnel by providing the operational data for planning, scheduling and control, and helps them further in decision making at the operations level to correct an out of control situation. The MIS helps the middle management in short term planning, target setting and controlling the business functions. It is supported by the use of the management tools of planning and control. The MIS helps the top management in goal setting, strategic planning and evolving the business plans and their implementation.

The MIS plays the role of information generation, communication, problem identification and helps in the process of decision making. The MIS, therefore, plays a vita role in the management, administration and operations of an organization.

Impact of the Management Information System

Since the MIS plays a very important role in the organization, it creates an impact on the organization's functions, performance and productivity.

The impact of MIS on the functions is in its management. With a good support, the management of marking, finance, production and personnel become more efficient. The tracking and monitoring of the functional targets becomes easy. The functional managers are informed about the progress, achievements and shortfalls in the probable trends in the various aspects of business. This helps in forecasting and long-term perspective planning. The manager's attention is brought to a situation which is exceptional in nature, inducing him to take an action or a decision in the matter. A disciplined information reporting system creates a

structured data and a knowledge base for all the people in the organization. The information is available in such a form that it can be used straight away or by blending analysis, saving the manager's valuable time.

The MIS creates another impact in the organization which relates to the understanding of the business itself. The MIS begins with the definition of a data entity and its attributes. It uses a dictionary if data, entity and attributes, respectively, designed for information generation in the organization. Since all the information systems use the dictionary, there is common understanding of terms and terminology in the organization brining clarity in the communication and a similar understanding an even of the organization.

The MIS calls for a systemization of the business operation for an affective system design. A well designed system with a focus on the manger makes an impact on the managerial efficiency. The fund of information motivates an enlightened manager to use a variety of tools of the management. It helps him to resort to such exercises as experimentation and modeling. The use of computers enables him to use the tools techniques which are impossible to use manually. The ready-made packages make this task simpler. The impact is on the managerial ability to perform. It improves the decision making ability considerably.

Since the MIS works on the basic systems such as transaction processing and databases, the drudgery of the clerical work is transferred to the computerized system, relieving the human mind for better work. It will be observed that a lot of manpower is engaged in this activity in the organization. If you study the individual's time utilization and its application; you will find that seventy per cent of the time is spent in recording, searching, processing and communication. This is a large overhead in the organization. The MIS has a direct impact on this overhead. It creates an information-based work culture in the organization.

Management Information System and Computer

Translating the real concept of the MIS into reality is technically, an infeasible proposition unless computers are used. The MIS relies heavily on the hardware and software capacity of the computer and its ability to process, retrieve communication with no serious limitations.

The variety of the hardware having distinct capabilities makes it possible to design the MIS for a specific situation. For example, if the organization needs a large database and very little processing, a computer system is available for such a requirement. Suppose the organization has multiple business location at long distances and if the need is to bring the data at one

place, process, and then send the information to various location, it is possible to have a computer system with a distributed data processing capability. If the distance is too long, then the computer system can be hooked through a satellite communication system. The ability of the hardware to store data and process it at a very fast rate helps to deal with the data volumes, its storage and access is effetive. The ability of the computer to sort and merge helps to organize the data in a particular manner and process it for complex lengthy computations. Since the computer is capable of digital, graphic, word image, voice and text processing, it is exploited to generate information and present it in the form which is easy to understand for the information user.

The ability of a computer system to provide security of data brings a confidence in the management in the storage of data on a magnetic media in an impersonal mode.

The computer system provides the facilities such as READ ONLY where you cannot delete to UPDATE. It provides an access to the selected information through a password and layered access facilities. The confidence nature of the data and information can be maintained in a computer system. With this ability, the MIS become a safe application in the organization.

The software, an integral part of a computer system, further enhances the hardware capability. The software is available to handle the procedural and nonprocedural data processing. For example, if you want to use a formula to calculate a certain result, an efficient language is available to handle the situation. If you do not use a formula but have to resort every time to a new procedure, the nonprocedural languages are available.

The software is available to transfer the data from one computer system to another. Hence, you can compute the results at one place and transfer them to a computer located at another place for some other use. The computer system being able to configure to the specific needs helps to design a flexible MIS.

The advancement in computers and the communication technology has the distance, speed, volume and complex computing an easy task. Hence, designing the MIS for a specific need and simultaneously designing a flexible and open system becomes possible, thereby saving a lot of drudgery of development and maintenance and maintenance of the system. The concept of user friendly systems and the end user computing is possible, making information processing a personalized function.

However, the application of the management principles and practices in today's complex business world is possible only when the MIS is based on computer system support.

Chapter 2 The Study of Information Systems

Part One: Text

Information and Information Systems (I)

Information systems have become a very important component of successful business firms and other organizations. They form an essential field of study in business administration and management. That's why most business majors must take a course in information systems. Since you probably intend to be a manager, entrepreneur[1], or business professional, it is just as important to have a basic understanding of information systems as it is to understand any other functional area in business[2].

Information is a basic resource in today's society. We are living in a global information society, with a global economy, which is increasingly dependent on the creation, management, and distribution of information resources. People in many nations no longer live in agricultural societies, composed primarily of farmers, or even industrial societies where a majority of the workforce consists of factory workers. Instead, the workforce in many nations consists primarily of workers in service occupations or knowledge workers, that is, people who spend most of their workday creating, using, and distributing information.

An information system is a set of people, procedures, and resources that collects, transforms, and disseminates information in an organization. Today's end users rely on many types of information systems (IS). They might include simple manual (paper-and-pencil) information systems and informal (word-of-mouth) information systems. However, in this text, we will concentrate on computer-based information systems that use hardware, software, telecommunications, and other forms of information technology (IT) to transform data resources into a variety of information products. In particular, we will discuss several types of management information systems (MIS) that provide information for decision-making by managers.

Information and information systems, then, are valuable resources for knowledge workers, their organizations, and society. A major challenge of our global information society is to manage its information resources to benefit all members of society while meeting the strategic goals of organizations and nations[3]. This means, for example, using information

试读结束，需要全本PDF请购买 www.ertongbook.com