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Information Technology and the Networked Economy

信息技术与网络经济

第二版

(影印版)

Patrick McKeown 著



清华大学出版社

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出版说明

21 世纪初期是从工业经济向建立在计算机、连接性和人类知识基础上的网络经济快速转变的时期。网络经济的特点是快速变化的市场条件和商业方法。与工业经济中利用机器支持人力不同,网络经济利用计算机和连接性支持人类的知识,制造商品和服务。网络经济要求公司专注于提供他们的组织生产率,而非个人生产率。为了满足将来公司的需要,大学必须迅速开始让学生为将来在网络经济中进行工作做好准备。本书第 2 版的目的就是为今天学习商业的学生提供在 21 世纪成为成功员工和管理者所需的网络经济知识。

第 2 版中的新内容

如同第 1 版一样,本书第 2 版也划分成章节的形式。除添加了一章介绍电子商务技术,并重新调整了现有的电子商务一章,使其侧重于策略以外,本书还增加了一节用来介绍电子商务。电子商务策略和技术的这种结合可以使学生理解电子商务的本质和方法。除了新增加的这一章和这一节以外,考虑到信息技术的发展使全球网络经济持续不断地变化,还对每一章进行了大量的更新。这种更新包括现有主题的新信息,对所有章节进行广泛地修订,加入最新的信息,在个别情况下,还增加了有关新主题的小节。例如,有关电子商务策略的一章包括的新主题有 Internet 对业务的威胁以及应对这些威胁的策略。

另外,所有加框的特写或者是新内容,或者是对第 1 版进行了大量的更新。还对它们进行了重新命名,以便更好地反映每种框的焦点。我们改编了各章中的很多快速复习题和各章最后的复习题。此外,复习题的数量增加了一倍,从 10 道题增加到了 20 道题。我们还改编和扩充了讨论题,并增加了调查题这种新类型的章末练习。这些问题需要读者在 Web 上或者亲自进行研究并编写一篇论文,或制作调查结果的报告。每章末尾的 WildOutfitters.com 案例也进行了类似的更新。

学习目标

本书第 2 版要达到下列 6 个主要的学习目标。这样,它就能确保学生为将来在网络经济中成为成功的员工和管理者而做好准备。阅读完本书以后,学生将能够:

- (1) 理解信息技术如何创建了网络经济,讨论这一转变所蕴涵的意义。
- (2) 描述人们如何使用信息技术将数据处理成信息,并共享数据、信息和资源。
- (3) 讨论信息技术如何能使机构通过使用信息系统处理现在,记住过去和准备未来。
- (4) 描述公司如何使用电子商务策略和技术来转变它们的经营方式。
- (5) 讨论与开发和购置信息系统有关的过程。
- (6) 了解信息技术和网络经济对由信息技术和网络经济带来的犯罪、安全和道德及社会问题的影响。

达到这些学习目标后,将大大有利于学生理解网络经济、信息技术、信息系统和它们对

社会的影响。

内容编排

为了达到这些学习目标,本书第2版被分成了5个部分,如下所示。一般而言,在学习了第1部分以后,可以按照任意次序学习其他部分。

第1部分 信息技术和网络经济导论

第2部分 机构中的信息系统

第3部分 电子商务:策略和技术

第4部分 信息系统的开发

第5部分 网络经济中的问题

第1部分介绍了有关网络经济和信息技术的信息。这一部分包括的各章将介绍网络经济、信息技术的要素以及共享数据、信息和资源的网络。这一部分还将介绍所有机构面临的风险以及如何使用信息系统处理这些风险。

第2部分介绍了信息技术对机构的影响,它包括的各章将介绍用于处理现在的事务处理系统、用于记住过去的组织存储器和用于准备未来的决策支持系统。这一部分完整地讨论了信息系统不仅能使机构在网络经济中生存,而且能使机构得到发展。

第3部分讨论了电子商务策略和技术。关于电子商务策略的一章是学生理解与 Internet 及 Web 有关的益处和威胁,以及处理这些威胁的策略的基础。关于电子商务技术的一章讨论了大量使电子商务成为企业的可持续收入流的技术。

第4部分介绍了与开发和购置信息系统有关的问题。这一部分包括的主题有设计新的信息系统和决定是否购置、外部采办或内部开发新系统。这一部分还介绍了开发信息系统的过程。这些章节可以使学生了解系统开发过程,其中包括结构化系统开发方法、RAD(快速应用系统开发)、外部采办和购置。

最后,第5部分介绍了信息技术和网络经济在安全、犯罪、隐私、道德、健康和社会问题等方面对社会的影响。这一部分中的各章分别讨论了机构中的犯罪和安全、隐私和道德问题,以及与信息技术和网络经济有关的社会问题。

编写方法

为了使读者通过了解信息技术和信息系统,从而在网络经济中取得成功,本书第2版使用了各种各样的教育学元素,其中包括两个连续案例、每个主要章节后的快速复习题、加框特写、复习题、讨论题和调查题。

FarEast Foods 公司的连续案例

一个重要的元素是贯穿各章的 FarEast Foods 公司案例。这个案例基于一个虚构的公司,它通过零售店、目录和 Internet 分销亚洲食品。这个案例让学生了解了公司使用信息技术和信息系统在网络经济中进行交易的方法。FarEast Foods 公司通过 Internet 取得订单,这是通过订购批发商的各个项目来完成的。该公司将各种食品条目组合成一批货,通过物流公司把货物交付给客户。学生可以通过访问 FarEast Foods 公司的 Web 站点 www.fareast-

foods.com 模拟购买过程。随着学生对本书的深入学习,信息技术和信息系统的各个方面都将应用于这个公司。例如,在有关系统开发的章节(第9章和第10章)中,这个连续案例将描述 FarEast Foods 公司如何增强其信息系统,学生可以在这个 Web 站点体验这一增强过程。在整本书中,每当讨论 FarEast Foods 公司的连续案例时,在页边空白处都用 FarEast Foods 公司的标识强调这一资料,就像你在这里看到的那个标识一样。

快速复习题

快速复习题能使学生在读完资料后马上检查他们对资料的理解。在 www.course.com 上提供有这些问题的答案,便于学生判断他们对资料的理解。

加框特写

每章中的5个加框特写都包括一个关注管理问题的案例,“前沿技术”框提供了新技术的信息,“发展中的 Internet”框提供了使用 Internet 的有趣示例,“IT 革新家”框介绍了 IT 和网络经济中的先驱者,章末的管理案例与重要的思考题有关。除了本书正文部分介绍的资料外,这些框提供了有关网络经济元素的有趣信息。每章的开始案例和结尾案例将以学生将要认识的大量公司为例,特别关注网络经济中的信息技术和前沿管理问题,这些公司包括 Lands' End、通用电气、梦工厂、Home Depot、戴尔等。

学习目标、复习题、讨论题和调查题

每章的开始是一系列问题,学生在看完这一章以后,将能够回答这些问题。每章末尾的复习题、讨论题和调查题使读者有机会检查他们所学的内容,并调查和讨论与这些资料有关的问题。学习目标、复习题、讨论题和调查题都是为了指导学生掌握这些资料。

WildOutfitters.com 的连续案例

每章末尾的连续案例 WildOutfitters.com 向读者介绍了 Alex 和 Claire Campagne,他们是一个专卖户外休闲设备和器材的小商店的业主,这个商店位于西弗吉尼亚州的 New River Gorge 附近。Campagne 一家准备把他们的业务搬到 Internet 上,这个案例要求学生应用在每一章学习的知识逐步建立这个公司。WildOutfitters.com 案例还要求读者使用 Microsoft Office(或具有同样功能的软件)解决与案例中描述的情况有关的问题。

教学资源

除了这本教科书以外,还有大量教学资源可以作为本书的教学工具。

教师手册

在 www.course.com 和教师资源 CD 上也可以找到教师手册。教师手册中有各种辅助教师的项目。这些项目包括课程提纲样例、学习目标、章节要点、详细的讲稿、快速测验题和章末资料的解答方法。

PowerPoint 演示工具

这些演示工具包括一整套由 Georgia 大学的 Mark Huber 和 Craig Piercy 制作的 PowerPoint 幻灯片。这是一种非常有用的教学工具,其作者自 2000 年春天这本教科书的第 1 版出版以来,就一直在使用它讲授信息系统课程的入门知识,因而具有丰富的教学经验。在本书出版以前,他们就在将近 1000 名学生中分级测试了这套新幻灯片。在 www.course.com 上可以下载这些幻灯片(由密码保护)。

ExamView

ExamView 是随这本教科书提供的一个功能强大的测试软件包,它能让教师制作和管理书面、计算机(基于 LAN)和 Internet 考试。ExamView 包括 1000 多道测试题,这也是由 Mark Huber 和 Craig Piercy 创作的。学生可以使用 ExamView 生成详细的学习指南,其中包括供将来复习用的页码索引。基于计算机和 Internet 的测试构件允许学生在计算机上参加考试,通过对每次考试自动评分,还能节约教师的时间。

FarEast Foods 公司的示范 Web 站点

用户还可以访问 Web 站点 www.fareastfoods.com,这个站点提供了贯穿本书的 FarEast Foods 公司案例。这个站点允许学生与一个模拟的电子商务公司交互作用。虽然学生不能实际从 www.fareastfoods.com 收到货物,但是他们能够完成本书描述的所有其他活动。

WildOutfitters.com 案例的 Student 和 Solution 文件

在 www.course.com 和教师的资源 CD 上可以找到 Student 和 Solution 文件。Solution 文件由密码保护,并且只向教师提供。Student 文件包括用户处理 WildOutfitters.com 案例时需要的任何文件。

关于作者

Patrick G. McKeown 博士是 Terry 商学院中排名前 10 位的管理信息系统系的负责人,自 1976 年以来,他就一直在 Georgia 大学。他在 Georgia 技术学院获得了学士和硕士学位,在 Chapel Hill 的北卡罗莱纳大学获得了博士学位。McKeown 已经在管理科学和信息系统领域出版了 30 多本书籍和将近 50 篇文章。由于他在非计算机课程中通过计算机项目增强了计算机文化,他于 1997 年获得了 Terry 商学院杰出服务奖。McKeown 在 1998 年是葡萄牙的 Fulbright 学者,他在那里讲授电子商务方面的 MBA 课程。他还在法国的里昂第三大学、芬兰的赫尔辛基经济学院和南非大学的企业领导研究生学院讲过学。

To my family—my wife, Carolyn; our son, Christopher;
our daughter, Ashley, and her husband, Todd;
and our grandson, Keegan Patrick Ahlman.

PREFACE

The beginning of the 21st century has seen a rapid change from the industrial economy to a networked economy built on computers, connectivity, and human knowledge. The networked economy is characterized by rapidly changing market conditions and methods of commerce. Instead of leveraging human strength with machines as was done in the industrial economy, the networked economy leverages human knowledge with computers and connectivity to produce goods and services. The networked economy requires that organizations concentrate on improving their organizational productivity rather than worrying about personal productivity. To meet the needs of tomorrow's organizations, colleges and universities must immediately begin to prepare students to work in the networked economy. The second edition of *Information Technology and the Networked Economy* is aimed at providing today's business students with the knowledge of the networked economy necessary to be successful employees and managers in the 21st century.

New in the Second Edition

As in the first edition, *Information Technology and the Networked Economy, Second Edition* is divided into sections. With the addition of a new chapter on electronic commerce technology and the refocusing of the existing electronic commerce chapter to concentrate on strategy, the book now includes a new section on electronic commerce. This combination of electronic commerce strategy and technology provides students with an understanding of the "what" and "how" of electronic commerce. In addition to this new chapter and section, every chapter has been extensively updated to take into account the continuing changes in the global networked economy brought about by advances in information technology. This updating includes new information on existing topics, extensive revisions to entire sections to include the latest information, and, in several cases, sections on new topics. For example, the chapter on electronic commerce strategy includes the new topics of threats to business from the Internet and strategies for countering these threats. All key terms are now defined in the margin as they occur for easy reference by the reader.

In addition, all boxed features are either new or have been extensively updated from the first edition. They have also been renamed to better reflect the focus of each type of box. Many of the quick review questions within chapters have been rewritten, as have the review questions at the end of chapters. In addition, the number of review questions has been doubled from 10 to 20. The discussion questions have been rewritten and expanded, and a new type of end-of-chapter exercise, Research Questions, has been added. These questions ask readers to carry out research, either on the Web or in person, and to write a paper or create a presentation on their findings. The WildOutfitters.com case at the end of each chapter has similarly been updated.

Learning Objectives

The second edition of *Information Technology and the Networked Economy* is built around achieving the following six key learning objectives. In so doing, it ensures that students will be prepared to be successful employees and managers in the networked economy. After reading this book, the student will be able to:

1. Understand how information technology has created the networked economy and discuss the implications of this transformation.
2. Describe how people use information technology to process data into information and share

data, information, and resources.

3. Discuss how information technology enables organizations to handle the present, remember the past, and prepare for the future through the use of information systems.

4. Describe how firms use electronic commerce strategy and technology to transform the way they carry out operations.

5. Discuss the processes involved in developing and acquiring information systems.

6. Understand the effects that information technology and the networked economy are having on crime, security, and ethics and the social issues created by the networked economy and information technology.

Achieving these learning objectives will go a long way toward providing the student with an understanding of the networked economy, information technology, information systems, and their impact on society.

Organization

To achieve the learning objectives, the second edition of *Information Technology and the Networked Economy* is divided into five parts, as shown in the table below. In general, after coverage of Part 1, any of the other parts can be covered in any order.

Part	Topical Coverage
1	Introduction to Information Technology and the Networked Economy
2	Information Systems in Organizations
3	Electronic Commerce: Strategy and Technology
4	Development of Information Systems
5	Issues in the Networked Economy

Part 1 provides information about the networked economy and information technology. This part includes chapters on the networked economy, elements of information technology, and networks for sharing data, information, and resources. This section introduces the risks facing all organizations and the use of information systems to address those risks.

Part 2 covers the effects of information technology on organizations and includes chapters on transaction processing systems for handling the present, organizational memory for remembering the past, and decision support systems for preparing for the future. This section provides the student with a complete discussion of information systems as they enable organizations in the networked economy not just to survive, but to grow.

Part 3 discusses electronic commerce strategy and technology. The chapter on electronic commerce strategy provides the student with a basis for understanding the benefits and threats associated with the Internet and Web and strategies for dealing with those threats. The chapter on electronic commerce technology discusses a number of the technologies used to make electronic commerce a viable revenue stream for businesses.

Part 4 considers the issues involved in developing or acquiring information systems. This includes topics on designing new information systems and deciding whether to acquire, outsource, or internally develop the new system. This section also covers the process of developing an information system. These chapters provide the student with an understanding of the systems develop-

ment process including the structured systems development approach, rapid application development (RAD), outsourcing, and acquisition.

Finally, part 5 covers the impact of information technology and the networked economy on society in the areas of security, crime, privacy, ethics, health, and societal issues. This section includes a chapter on crime and security in organizations, a chapter on privacy and ethical issues, and a chapter on the societal issues associated with information technology and the networked economy.

Approach

To prepare readers to be successful in the networked economy by understanding the impact of information technology and information systems, *Information Technology and the Networked Economy, Second Edition* uses a variety of pedagogical elements, including two running cases, quick review questions after each major section, boxed features, review questions, discussion questions, and research questions.

FarEast Foods, Inc. Running Case



An important element is the FarEast Foods, Inc. case that runs through all of the chapters. This case is based on a fictitious company that distributes Asian foods via retail stores, catalogs, and the Internet. It provides students with a look at the ways in which companies use information technology and information systems to transact business in the networked economy. FarEast Foods takes orders over the Internet that it fulfills by ordering individual items from wholesalers. The company combines individual food items to create a shipment that a package delivery company picks up and delivers to the customer. Students can simulate the purchase process by visiting the FarEast Foods Web site at www.fareastfoods.com. As students move through the book, the various aspects of information technology and information systems are applied to the company. For example, in the chapters on systems development (Chapters 9 and 10), the running case describes how FarEast Foods enhances its information system, and students can experience that enhancement at the Web site. Throughout the book, whenever the FarEast Foods running case is discussed, the material is highlighted by the FarEast Foods logo in the margin, similar to what you see here.

Quick Review Questions

The Quick Review questions enable students to check their understanding of the material immediately after reading it. Answers to these questions are available at www.course.com so students can gauge their comprehension of the material.

Marginal Glossary

To help readers with the terminology that is so much a part of information systems and information technology, we have added a new feature to this edition—marginal glossary definitions for each key term in the text. With these definitions prominently displayed in the margin, the reader can easily determine the meaning of a word, phrase, or acronym. Readers will also find a traditional glossary at the end of the book, as in the first edition.

Boxed Features

The five boxed features in each chapter include an opening case that focuses on management issues, a “Technology on the Edge” box that provides information on new technologies, an “Internet in Action” box that provides an interesting example of using the Internet, an “IT Innovators” box that discusses one of the pioneers in IT and the networked economy, and an end-of-chapter management case with associated critical thinking questions. These boxes provide interesting information about elements of the networked economy beyond the material covered in the body of the chapter. The chapter opening and closing case boxes pay particular attention to information technology and cutting edge management issues in the networked economy at a wide variety of companies that students will recognize, including Lands’ End, General Electric, Dreamworks, Home Depot, Dell Computers, and more.

Learning Objectives, Summary, and Review, Discussion, and Research Questions

Each chapter opens with a series of questions that the student will be able to answer after reading the chapter. The material in the chapter is summarized by providing answers to these questions. The review, discussion, and research questions at the end of the chapter provide readers with an opportunity to review what they have learned from the chapter and to research and discuss issues associated with the material. The learning objectives, summary, review questions, discussion questions, and research questions all work in concert to guide students to mastery of the material.

WildOutfitters.com Running Case

The running case at the end of each chapter, WildOutfitters.com, introduces the reader to Alex and Claire Campagne, owners of a small shop specializing in equipment and provisions for outdoor recreation located near the New River Gorge of West Virginia. The Campagnes are moving their business onto the Internet, and the case asks students to apply what they have learned in the chapter to the development of the company. The WildOutfitters.com cases also request that readers use Microsoft Office (or equivalent software) to solve problems associated with the situation described in the case.

Instructional Resources

In addition to this textbook, a variety of instructional resource items are a part of the teaching tools for *Information Technology and the Networked Economy, Second Edition*.

Instructor's Manual

An Instructor’s Manual can also be found at www.course.com and on the Instructor’s Resource CD. The Instructor’s Manual contains a variety of items to assist the instructor. These items include the following: sample syllabi, learning objectives, chapter outlines, detailed lecture notes, quick quizzes, and solutions to end-of-chapter material.

PowerPoint Presentations

These include a complete set of PowerPoint slides, created by Mark Huber and Craig Piercy of the University of Georgia. The authors of this very useful teaching aid have extensive experience teaching an introductory information systems course using the first edition of this textbook since its release in Spring 2000. They have class-tested the new slides using pre-release chapters of the book with almost one thousand students. The slides are available for download at www.course.com (password protected).

ExamView

This textbook is accompanied by ExamView, a powerful testing software package that allows instructors to create and administer printed, computer (LAN-based), and Internet exams. ExamView includes more than 1000 test questions, which were also created by Mark Huber and Craig Piercy. Students can use ExamView to generate detailed study guides that include page references for further review. The computerbased and Internet testing components allow students to take exams at their computers and also save the instructor time by grading each exam automatically.

FarEast Foods, Inc. Demonstration Web Site

Users may also access a Web site, www.fareastfoods.com, which accompanies the FarEast Foods, Inc. case that runs throughout the text. This site allows students to interact with a simulated electronic commerce company. Although students cannot actually receive goods from www.fareastfoods.com, they can carry out all of the other activities described in the text.

Student and Solution Files for WildOutfitters.com Case

Student and Solution Files can be found at www.course.com and on the Instructor's Resource CD. Solution files are password protected and available only to instructors. Student files include any files necessary for the user to work with the WildOutfitters.com case.

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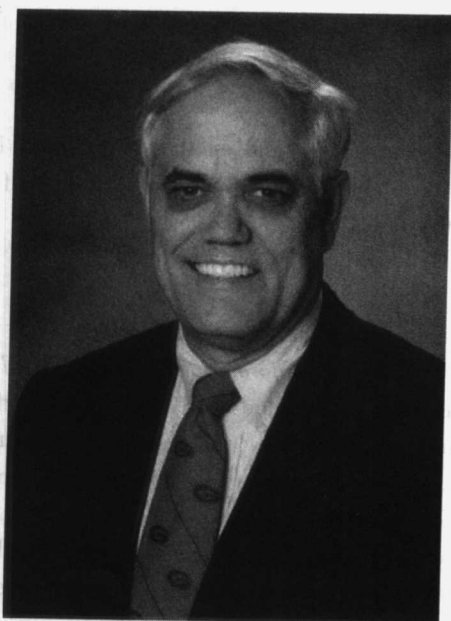
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CONTENTS

PART I

Introduction to Information Technology and the Networked Economy

CHAPTER 1

The Networked Economy	2
A Connected World	4
The Impact of Computer Networks on Business	5
Movement to the Networked Economy	6
Impact on Businesses	7
Creative Destruction	8
Elements of the Networked Economy	11
Economic Relationships	11
Computers	11
Connectivity	12
Knowledge	13
Knowledge Workers	15
Information Systems: IT in Organizations	17
Systems	18
IS Functions	18
Transforming the Organization	21
Using IS Functions to Deal with Business Risks	22
Reducing Demand Risk	22
Reducing Efficiency Risk	22
Reducing Innovation Risk	23
FarEast Foods, Inc.	24
A Look Ahead	25
Review Questions	27
Discussion Questions	27
Research Questions	28
WildOutfitters.com	28

CHAPTER 2

Information Technology: The Infrastructure of the Networked Economy	31
Elements of Information Technology	32
A Closer Look at Computers	33
A Closer Look at Hardware	33
Input	35
Processing	36
Output	37
Secondary Storage	37
Conceptual Computer	38
Bits, Bytes, and Binary Numbers	38
Digital Storage	40
A Closer Look at Software	41
Software Terminology	42
Operating System Software	43
Comparison of Operating Systems	44

Application Software	45
Computer Programs and Languages	46
Organizational Computing	47
Mainframes	47
Personal Computers	49
Client/Server Computing	50
Three-Tiered Architecture	51
Hardware and Software at FarEast Foods	54
Review Questions	56
Discussion Questions	57
Research Questions	57
WildOutfitters.com	58
Appendix to Chapter 2: A Short History of Computers	59
The Evolution of the PC	59

CHAPTER 3

Sharing Information and Resources

through Networks	61
Computer Networks	62
Network Types	63
Understanding Wide Area Networks	65
Application Software Layer	66
Networking Software Layer	67
Physical Layer	67
Electronic Data Interchange	72
Understanding Local Area Networks	73
LAN Components	74
Ethernet LANs	75
LANs at FarEast Foods	76
Wireless Networks	77
Wireless LANs	78
The Internet: A Network of Networks	79
What Is the Internet?	80
Using the Internet	81
E-Mail	83
FTP	84
Telnet	85
Newsgroups	85
Internet Relay Chat	86
The World Wide Web	88
Using Browsers to Access the Web	89
Browser Operations	91
Intranets and Extranets	92
The Web and Electronic Commerce	93
Review Questions	94
Discussion Questions	94
Research Questions	95
WildOutfitters.com	95

PART2

Information Systems in Organizations

CHAPTER 4

Handling the Present: Transaction

Processing Systems 100

Information Systems in Organizations 102

Transaction Processing Fundamentals 104

TPS and Business Processes 104

TPS and Supply Chains 106

A Closer Look at Transaction Processing

Systems 107

Transaction Processing Methods 108

Transaction Processing Activities 109

Data Gathering and Entry 110

Processing and Data Manipulation 112

Data Storage 113

Output and Reporting 114

The Impact of the Internet on TPS 114

Transaction Processing at the FarEast

Foods Web Site 117

Step 1: Creating an Order 118

Step 2: Submitting an Order 118

Step 3: Processing the Order at FarEast

Foods Web Site 119

Step 4: Ordering Food from Wholesalers 119

Step 5: Creating and Shipping the Order to the Customer 120

Business-to-Business Transactions 120

Interorganizational Systems and the Internet 121

Supporting Business-to-Business Transactions with XML 124

Supply Chains and the Internet 125

Business-to-Business at FarEast Foods 125

Review Questions 127

Discussion Questions 128

Research Questions 128

WildOutfitters.com 129

CHAPTER 5

Remembering the Past with

Organizational Memory 131

Organizational Memory 133

Components of Organizational Memory 133

Semistructured Versus Structured Organizational Memory 135

Structured Storage of Data 135

Development of Database Management Systems 137

Data Warehouses 140

Relational Database Management Systems 142

Relational Database Operations with Structured Query Language 144

Object-Oriented Databases 146

Information Management 146

Paper-Based Information Storage 147

Document Management Systems 148

Searching and Indexing Information 149

Knowledge Management 151

Types of Knowledge 151

Sharing Knowledge 152

Virtual Teams 154

Document Databases 154

Expert Systems 155

Review Questions 158

Discussion Questions 159

Research Questions 159

WildOutfitters.com 160

CHAPTER 6

Preparing for the Future with Decision

Support Systems 163

Preparing for the Future 165

Decision-Making Concepts 166

Types of Decisions 167

Types of Decision Support Systems 168

DSS Users 169

Using a DSS to Support Decision Making 172

Decisions at FarEast Foods 174

Information-Based Decision Support Systems 175

Types of Reports 176

An Information-Based DSS in Action: The Balanced Scorecard System 178

Data-Based Decision Support Systems 180

Online Analytical Processing 180

Data Mining 183

Data-Based DSS in Action: Customer Relationship Management 185

Model-Based Decision Support Systems 187

Parts of a Model-Based Decision Support System 187

Using Models 189

Model-Based DSS in Action: Revenue Management 189

Review Questions 192

Discussion Questions 193

Research Questions 193

WildOutfitters.com 194

PART3

Electronic Commerce: Strategy and Technology

CHAPTER 7

Electronic Commerce Strategies 198

Electronic Commerce and the Networked Economy	200	Concerns with Electronic Money	259
Defining Electronic Commerce	201	Credit Cards	260
Types of Web Sites	202	Electronic Funds Transfer	260
Limitations of Electronic Commerce	204	Card-Based Digital Cash	262
The Changing Nature of Electronic Commerce	206	Computer-Based Digital Cash	262
Effects of the Internet and Web on Businesses	207	Review Questions	265
Price Transparency	208	Discussion Questions	265
Communications Flip-flop	211	Research Questions	266
Perfect Choice	214	WildOutfitters.com	266
Internet and Web Effects on FarEast Foods	216		
Electronic Commerce Strategies	217		
Electronic Commerce Strategies for Handling Price Transparency	218		
Electronic Commerce Strategies for Dealing with Perfect Choice	220		
Electronic Commerce Strategies for FarEast Foods	220		
Electronic Commerce Strategies to Deal with Communications Flip-flop	223		
Web Advertising	224		
Attracting Customers	224		
A Two-Stage Model to Attractiveness	226		
Web Strategies for FarEast Foods	229		
Review Questions	230		
Discussion Questions	231		
Research Questions	231		
WildOutfitters.com	231		
CHAPTER 8			
Electronic Commerce Technologies	233		
Electronic Commerce Technology	235		
Electronic Commerce Infrastructure	235		
Global Information Infrastructure Layer	235		
Message Distribution Infrastructure Layer	236		
Electronic Publishing Infrastructure Layer	236		
Business Services Infrastructure Layer	237		
Electronic Commerce Application Layer	237		
Application to FarEast Foods	237		
Web-Based Electronic Commerce	239		
Finding Web Sites with Search Sites	239		
Transacting an Order over the Web	243		
Client-and Server-Side Processing	246		
Microsoft or Open-Source Web Server	249		
Problems with the HTTP Protocol	249		
The Stateless Nature of HTTP	250		
Counting Web Site Visitors	251		
Using Cookies for Shopping Carts and Counting Visitors	251		
Securing Electronic Commerce Transactions	254		
Security Issues	254		
Encryption	255		
Digital Signatures	257		
Electronic Commerce Payment Systems	258		
		PART 4	
		Design and Development of Information Systems	
		<hr/>	
		CHAPTER 9	
		Developing Information Systems 1	270
		Systems Development	272
		When Is Systems Development Needed?	272
		Systems Development at FarEast Foods	274
		Approaches to Systems Development	274
		Ad Hoc Programming	274
		Structured Systems Development	275
		Rapid Application Development	276
		End-User Development	276
		Outsourcing	276
		Acquisition	277
		Choosing Among Internal Development, Outsourcing, or Acquisition	277
		A Look Ahead	277
		Structured Systems Development	279
		The Systems Development Life Cycle	279
		Stages of the Structured Approach	281
		Systems Development in the Networked Economy	282
		Planning Stage	283
		Identifying the Project	283
		Initiating the Project	284
		Performing a Feasibility Study	285
		Creating a Workplan	286
		Staffing the Project	286
		Magnitude of Effort	287
		Planning Stage for FarEast Foods Project	288
		Customer Rewards Feasibility Study	288
		Developing a Workplan and Staffing the Customer Rewards Project	289
		Analysis	291
		Requirements Determination	293
		Model Building	294
		The System Proposal	295
		Analysis of FarEast Foods Customer Rewards Project	296
		Model Building: The FarEast Bucks Data Model	296