电子商务与技术

E-Commerce, Business and Technology

（英汉对照）

〔印〕 **Rajeev T Shandilya** 著

陈允明　谈庆明　陈养正　译

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内 容 简 介

本书是中印合作软件行业系列教材之一,旨在提高电子商务开发人员的技术。全书共分四章:电子商务与技术,电子商务和互联网战略,电子商务的框架,系统设计和部署,电子商务,电子商务经济,全球经济和增长。

本书作者长期与各界的互联网开发人员和用户合作,对电子商务有较深刻的了解。本书阐述了同类书中较少描述的电子商务技术发展、商业策略和商业政策方面的内容,这些对开发人员设计全新业务模型是十分有益的。

本书采用英汉对照的出版形式,以便帮助读者正确理解原作品,并为双语教学提供方便。

本书适合大专院校信息管理、电子商务和软件专业学生阅读,也可作为相关专业的培训教材。

出 版 说 明

为了推动我国软件产业的发展，增强信息产业创新能力和国际竞争力，带动传统产业的改造和产品升级换代，进一步促进国民经济持续、快速、健康发展，我国政府提出：力争在 2010 年我国的软件产业的研究开发和生产能力达到或接近国际先进水平。这是国家经济结构战略调整目标的需求，软件专门人才和复合型人才的培养十分迫切。为此，一批高等院校在政府的支持下开办了软件学院，推进合作办学的机制，在课程建设，教材建设和产学研等方面取得了突破性进展。

北京与国家软件产业战略同步，将造就一批高质量、实用型软件人才列入重点规划之中，并将教材建设列入产业建设的重中之重。通过各种方法引进、推荐国内外不同特色的优秀系列教材。

《电子商务与技术》的作者 Rajeev T Shandilya 先生常年在印度从事软件人才的培训工作和项目管理工作，并与互联网开发人员和用户有持久的合作，对电子商务有较深刻的了解。作者在这本书中阐述了电子商务的各个方面，包括电子店面、在线商务、客户界面、B to B 网络、数字支付、法律、信息产品开发以及电子商务模型等。通过学习本书，读者将具备电子商务的技术、商业和政策法规方面的能力，这些能力对于创建电子商务公司，或者从事电子商务工作都是十分必要的。

本书的译者是资深的翻译家，他们对书中的术语作了十分谨慎、认真的勘酌，力求准确。为了满足双语教学的需要，也为了方便学生充分理解教学的内容，更深入地掌握英语的听说读的能力，本书以英汉对照的形式出版。英汉对照采取合页版式，内容一一对应，提示关键词汇，留有笔记空间，读者会对这独巨匠心的设计产生贴近感：一书在手，学技术、练英文，记录学习心得。

科学出版社组织出版的首批中印合作软件行业系列教材，共五本，《软件质量测试》、《项目周期与要求》、《电子商务与技术》、《PC 网络系统结构》也将陆续出版。敬请读者指正本书中的错误，并对出好本系列教材不吝赐教。

PREFACE

The premier invention of this century is the ecommerce. Global communication has been facilitated by the electronic transmission of data that connect the individuals regardless of geographic location, almost instantaneously. These are only a few of the countless task or applications performed by Information Communication technology.

In a relatively short time span it has affected many areas of our lives. It is difficult to imagine a day that is not in some way affected by eCommerce. It's changing people's lives in areas as diverse as medicine, publishing, business, the home and transportation. It has altered completely the structure of business. Large volumes of accounting and record keeping data can be manipulated, organized, stored, retrieved, and used for specific purpose. Bill and statements can be processed and sent to customers in much less time and with much less effort then would be required for the same processed done manually. Financial projections and results are made with greater ease, as the new e technology helps manager organize and manipulate financial data. Any combination of factors and their effect on the overall picture can be tested. Planning and decision making thus become more efficient and accurate. In manufacturing industries, new e applications direct production, guide machine tools, control quality, design part, and monitor inventories.

With the opening up of the economy and the big thrust being given to the exports sector, more and more organization have begun to deploy E-Commerce applications based on Information Communication Technology (ICT) as a strategic tool to meet their business on and around information systems. Bank use it for better client serving, manufacturing concerns use it for planning, resource allocation and to produce high quality goods; communications has taken a completely new dimension owing to the speed, power, and flexibility that ICT offers. Whatever the business, ecommerce applications are indeed opening up new vistas and opportunities for better and efficient deliverables —— be it in products; be it in services.

The world is undergoing a revolution to a digital economy, with pronounced implications for corporate strategy, marketing, operations, information systems, customer services, global supply-chain management, and product distribution. This book examines the aspects of electronic commerce, including electronic storefront, on-line business, consumer interface, business-to-business networking, digital payment, legal issues, information product development, and electronic business models. Indispensable for academics, students and professionals who are interested in Electronic Commerce and Internet Business.

An E-Commerce project is a group of integrated elements —— people, procedures, and equipment —— working together in support decision-making and operation within an organization or in a personal setting.

序　言

　　20世纪的首要发明是电子商务。数据的电子传输大大推进了全球通信。不管双方的地理位置如何，几乎瞬时就能完成彼此之间的数据传输。这也只是信息通信技术完成的无数任务或应用中的例子而已。

　　在不长的时间内，数据的电子传输已经影响到我们生活的方方面面。很难想象有一天，我们的生活能不受电子商务的影响。在诸如医药、出版、商业、家庭和运输等领域中，它正在改变着人们的生活。它已经完全改变了商业的结构。我们可以利用、组织、储存和检索大量的会计数据和档案记录，并把它们用于特定目的。与手工操作相比，账单和报表可在较短的时间，用较少的精力加工完成并发送给客户。由于新的电子技术的帮助，经理更容易组织和操作财务数据，更容易制作财务规划并得出财务报表。我们可以试验各种因素的任意组合，可以测试其整体效果，因此规划和决策变得更有效、更准确。在制造业中，新的电子应用正在指导生产、管理机床、控制质量、设计部件和监控库存。

　　随着经济的开放和贸易部门所受到的巨大推动，愈来愈多的机构开始配置基于信息通信技术（ICT）的电子商务应用，把它作为战略工具来满足围绕信息系统的商业需求。银行业利用它来更好地为客户服务；制造业用它来制定计划、分配资源和生产高质量的产品；通信业已经由于ICT提供的速度、能力和灵活性而面貌一新。不论是什么行业，电子商务的应用确实开辟了更好和更有效地提供产品和服务的新前景和新机遇。

　　世界正在经历一场数字经济的革命，这场革命将给公司战略、市场营销、经营管理、信息系统、客户服务、全球供应链管理和产品分销带来明显的影响。本书考察电子商务的各个方面，包括电子店面、在线商务、客户界面、B-to-B（企业-企业）网络、数字支付、法律问题、信息产品开发以及电子商务模型等。对于有志于电子商务和互联网业务的学者、学生和专业人员来说，本书是必不可少的。

　　电子商务项目整合人员、工艺规程和设备各种元素，共同支持机构的决策、运营或人事安排。

📖 主要词汇　　　　　　　　　　　**📓 学习笔记**

retrieved：检索；重新得到。
vista：展望，前景。

Because of the size and complexity of the society, detailed and extensive records are needed in business, government, education and health. The principle characteristic of an E-Commerce is the large file to files of data that must be kept up-to-date. Elaborate records are absolutely essential to process, file and retrieve all of the information necessary for day-to-day operation in any large business, government agencies and industrial concerns. With the development of more versatile input-output equipment and remote entry devices. Banks have begun to use E-Commerce applications to maintain customer accounts. And airlines have started using E-Commerce to coordinate their travel reservations. In all these systems. It is usually necessary to extract summary information from the file, detect inconsistencies and produce routine such as daily records of transitions or monthly statement of account.

E-Commerce management, which encompasses planning, scheduling and monitoring phases of a business process, assume a very important role considering the present trends in modern E-Commerce project management. This is quit evident with a steep increase in project investment accompanied by technological complexities involving a large magnitude of operations, voluminous tasks to be handled, multifarious activities to be coordinated and monitories with different agencies located in geographically dispersed locations, yet all efforts coherently concentrated to achieve targeted with a greater degree of interdependence, which is quite apparent in most of the sectors of national economy such as power, oil, coal, steel. Railways etc.

The process of E-Commerce management which does operate on a self regulation mechanism needs constant feedback on the occurrences at predetermined points for the events to conform to planned schedules. The basic need for effective monitoring depends solely upon timely, reliable, accurate and sufficient information on various aspects of a business process, emanating from different agencies flowing through different operation levels and echelons of management. The various interacting agencies could be clients, collaborators, consultants, vendors, contractors, financiers, and statutory bodies, fictional groups, who are geographically dispersed over the globe.

The various phases of a typical E-Commerce project could be broadly identified as feasibility study, detailed project report, process design, detailed engineering, procurement, construction and commissioning. Each of us experiences unfamiliar circumstances that cause us unnecessary concern: the first day of a school year, the first meeting of a new organization, the first seminar, or the first day on a new job, we feel ill at ease because of strange surrounding or unknown customs. Once we find old friend or meet new ones and learn the prevailing social or professional customs, we feel more comfortable.

Deployment of E-Commerce applications are like that: is unfamiliar terminology and process may cause apprehension, but familiarization removes the strangeness. We soon see that much of E-Commerce applications are new ways of using old principles, practices and equipment. Those elements that really are new are soon understood.

In a board sense, E-Commerce is the incorporation of appropriate technology to help people manage business processes and is considered appropriate when it utilizes the most abundant domestic resource and

由于社会的庞大和复杂，商业、政府、教育和健康各方面都需要详细和广泛的情况记录。电子商务的主要特色是保存需随时更新的资料的大容量文件。为了处理、存档和检索在大型商业、政府机构和工业企业的日常运作中所需的各种信息，详细的记录是极其重要的。随着更通用的输入输出设备和远程登录设备的发展，银行已开始应用电子商务来保存客户的账目，航空公司已开始应用电子商务来协调机票预订。在所有这些系统中，通常都需要从相关文件中摘取主要信息、检查其中的矛盾、制作每日交易记录或账目月报这类常规报表。

考虑到现代电子商务项目管理的趋势，电子商务管理，包括业务过程的计划、调度和监控阶段，将担任非常重要的角色。对于相互依赖性较大的工程——大多数国民经济部门（如动力、石油、煤、钢铁、铁路）中的工程很显然都是如此，由于工作量大、任务繁杂、要协调的活动多种多样、要监测的单位地理位置分散，这一切导致工艺和技术的复杂化，于是工程投资急剧增长；要集中精力、协调努力完成这样的目标工程，显然要采用电子商务管理。

按自调节机制运行的电子商务管理过程，需要对在预定点上出现的事件作经常性的反馈，以证实是否符合计划进度。有效监控的基本要求仅仅取决于下述要求：从不同机构发出的、流经不同运作层次和管理级别的、有关业务过程的各方面信息，要做到及时、可靠、准确和充分。这种相互作用的机构可能是分布在全球各处的客户、合作商、顾问、供货商、承包商、金融家、法定团体或虚拟群体。

典型电子商务项目的各个阶段可概括为可行性研究、详细项目报告、过程设计、详细工程设计、采购、建设和试运转。我们每一个人都经历过不熟悉的情况，也产生过不必要的担心。例如：新学年的第一天、新机构的第一次会议、新职业的第一天或第一次讨论会，由于陌生的环境或未知的习惯我们会感到不安。一旦我们找到了老朋友或会见了新朋友，学会了适应社会主流习惯或职业习惯，我们就会感到自在了。

电子商务应用的部署就像刚才说的情况：不熟悉的术语和过程可能会引起忧虑，一旦熟悉，陌生感自然就会消除。我们很快就会明白，大部分电子商务应用只是对于过去的原则、实践和设备的新的运用方法，对于那些全新的元素，人们也会很快熟悉。

从广义上讲，电子商务是把合适的技术组合起来帮助人们管理业务过程；如果它在这个过程中利用了丰富的本地资源，保存了资金并留住了熟练员工，那么它就是合适的。

📚 主要词汇

📖 学习笔记

versatile：通用的，万能的。
commissioning：试运转，试生产。

conserves capital and skilled personnel.

An automated E-Commerce system is 'a multifunction, integrated, computer based system that allows many business activates to be performed in an electronic mode.' The word multifunction is very important. some people think that automated E-Commerce system provide only one or two simple function, such as word processing. If this were true, there would be no need for this section for the many book and thousands of articles written and number of seminars conducted on E-Commerce. Rather, E-Commerce does involve the wide range of functions.

一个自动的电子商务系统，是一个多功能、集成、以计算机为基础的系统，它使许多业务活动以电子模式进行。多功能这个字是很重要的，有些人认为自动电子商务系统只提供一种或两种简单功能，例如文字处理。如果是这样的话，许多关于电子商务的书籍、成千上万篇文章和无数的讨论会就没有必要了。然而，电子商务确实包含着多种多样的功能。

主要词汇

integrate：集成；整合，综合。

学习笔记

FOREWORD

Welcome to " E-Commerce Business and Technology ". Electronic commerce is defined as any form of business or administrative transaction or information exchange that is executed using any information and communications technology (ICT).

Following this definition this book covers all the information which includes the latest technologies for enabling trade over the internet, the more established practices of conventional EDI (electronic data interchange) and bar coding, as well as the business reasons for implementation of these technologies.

The demise of the dot-com is no longer front-page news. But lingering (and often painful) memories have tended to obscure the fact that this sector's implosion is by no means the only story in the world of E-Business.

In this world, waves of technology-driven change that began with the Internet will continue to re-shape the economy and the way it works as we move to m-commerce, u-commerce and beyond. For established companies grappling with that first technology wave—those attempting to embed the "e" into their traditional businesses through the launch of online initiatives—life goes on. These companies continue to carry out and benefit from major investment programs to e-enable their capabilities. Many are well on the way to implementing new business models and using the Internet to modernize their business processes, particularly in the area of customer relationship management.

Commerce over the Internet is booming and it is poised to skyrocket. Industry analysts are unanimous in that view as is the writer which has identified electronic commerce as a priority area for the immediate and near future. Electronic commerce is a prime enabler and stimulator of economic growth and business to be well positioned to take advantage of the opportunities as they arise.

With an excellent communications infrastructure and high penetration of the Internet into its business and general population, most of the countries are currently well positioned and has taken a lead role in stimulating and regulating the Internet within the international community. But this advantageous position is only relative and could be short-lived unless concerted, continuous and deliberate efforts are made to upgrade their position. Things move quickly on the Internet (as characterized by the Internet "year" which is 47 days in the "real" world). The United States are already pulling ahead of the others and any other country has the potential to win the race to real-world prosperity through the virtual world of the Internet.

This book has all the information to communicate the potential of the Internet, to stimulate interest in the opportunities and to promote growth of the business. The writer has gain his experience during his last 20 year working experience and shared his views with Business, Academia and Government, who are

前　　言

　　欢迎阅读《电子商务与技术》。电子商务定义为，利用信息和通信技术（ICT）执行的商务交易、行政事务处理或信息交换。

　　按照这个定义，本书讲述了网上交易所应用的最新技术，以及常规电子数据交换（EDI）和条形码的成熟实践，还会讲到应用这些技术的商业理由。

　　互联网站的衰退已不再是头版新闻。但是，挥之不去的（通常还是痛苦的）记忆往往会模糊下述事实，即，这个行业中的泡沫破裂绝不是电子商务世界中的惟一轶事。

　　在这个世界中，当我们进入 m 商务，u 商务及其后续模式的时候，发端于互联网的、由技术驱动的变化浪潮将继续重塑经济以及经济的运行方式。抓住了第一次技术浪潮的公认定型公司，通过开展在线业务将"电子化"引入自己的传统业务，它们继续保有活力。这些公司继续推行以"电子化"充实其业务能力的重大投资项目，并从中获利。许多公司正在实现新的业务模型，利用互联网使其业务过程现代化，特别是在客户关系管理领域。

　　网上经商正在稳步上升、迅猛发展。产业分析专家都与作者持相同的观点，认为电子商务很快就会成为一个优先发展的领域。电子商务是经济增长、事业良好定位从而能把握机遇的主要保证因素和激励因素。

　　随着优秀的通信基础设施的到位和互联网在企事业用户和一般居民中的广泛普及，大多数国家目前的定位良好，采取主动步骤在国际社会推动并规范互联网。但是，这种优势地位只是相对的，可能是短命的，除非他们进行连续、协调和深思熟虑的努力来提升自己的地位。互联网上的事情发展得很快（所谓互联网"年"是在"现实"世界中的 47 天）。美国已经领先于其他国家；任何国家都有可能通过互联网的虚拟世界而在繁荣的现实世界的竞赛中胜出。

　　本书讲述互联网的潜力，激发人们对互联网创造机遇的兴趣并促进事业的增长。作者的经验来自于他近 20 年的互联网工作经历；他常年与商界、学术界和政府中的互联网开发人员和当前用户

📑 主要词汇　　　　　　　　　　📝 学习笔记

position：位置；定位。
Unanimous：意见一致的。

developers or current and potential users of the Internet, to encourage the kinds of interaction and linkages which catalyze growth, progress, and partnerships.

Electronic commerce means many things to many people. But at its core, electronic commerce —— or the digital economy, electronic marketplace, or Internet commerce —— refers to an economic system where firms and consumers are aided by computers and networking technologies that enable an entirely new market.

In this newly defined world of business, it is vital to have an insightful understanding of the broad spectrum of issues affecting commercial uses of the Internet and the next-generation information infrastructure. While there is a considerable uncertainty about who will be the winners and what products and technological standards will dominate this new arena, the basic foundation for a totally unique competitive market has been laid and so has the stage for a fundamental market analysis using economics.

This book is not about how to use the internet or how to set up a internet page. It introduces readers the underlying economic aspects of the electronic marketplace in order to provide them with an understanding of the fundamental implications of technological developments, business strategies and policies —— laying the foundation for the development of radically new business models. This analytic foundation is most lacking in other books on electronic commerce. The E-Commerce Business and Technology, delivers advanced, academic and essential insights into electronic commerce and the Internet-based economy.

Is this book for you

First and foremost, if you wish to achieve competence within E-Commerce as a supplement to the education you already have. Perhaps, you have excellent qualifications in the social sciences or the humanities, but would like to enhance your competence with technical and legal aspects of E-Commerce. Or perhaps, you have a BSc degree, but would like to know more about the business aspects of E-Commerce. You may also be a bachelor working in a web-division who needs to develop your perspective on E-Commerce and enhance your professional prospects.

In addition, you are interested in trying your hand at project work, which is a central element in design, construction, implementation and management of E-Commerce projects.

Learning Outcome

This book will provide you with competence within the technical, commercial and policy/legal aspects of E-Commerce. These three fields are essential in starting new E-Commerce firms or if you want to work in a company that already engages in E-Commerce. This applies whether you are going to participate in or manage projects that develop and maintain E-Commerce solutions.

In this book, the concept E-Commerce comprises marketing, sales transactions and subsequent sale of digital and physical goods. The focus is on back-office and front-end solutions. It includes Internet technologies, but also e.g. EDI solutions, logistics, payment systems and legal aspects. In this program,

或潜在用户共享观点，鼓励各种形式的交往和联系从而促进发展、成长和合作。

电子商务对不同的人来说意味着不同的事情。但是，电子商务或称数字经济、电子市场、互联网商务，其核心是指一个电子系统，公司和客户可以在该系统中借助计算机和网络技术形成一个全新的市场。

在这个新定义的商务世界中，深入了解影响互联网的商务应用和下一代信息基础设施的广泛问题是重要的。谁将是胜利者、什么产品和什么技术标准将主宰这个新领域，这方面有很大的不确定性；但是，一个独具特色的竞争性市场的基础已经建立，也就有了一个利用经济来做基本市场分析的舞台。

本书不是讲述如何使用互联网，或者如何建立互联网网页。它向读者介绍电子市场的基本经济方面，让他们理解技术发展、商业策略和商业政策的基本含义；也就是说，为全新业务模型的开发奠定基础。其他有关电子商务的书籍中最缺少的就是这种分析基础。《电子商务与技术》将让我们对电子商务和互联网经济拥有先进的、理论的和实质性的洞察力。

这本书适合你吗

首先，也许你想获得电子商务方面的能力，作为对你已受教育的补充。也许你已经在社会科学或人文学科中有了优秀的资格，想加强在电子商务的技术和法律方面的能力。或者你有了一个学士学位，想更多了解电子商务的业务。你也许是一位在网站部门工作的学士，想发展自己对于电子商务的洞察力，并改善自己的职业前景。那么本书就是为你而准备的。

此外，如果你有兴趣尝试一下电子商务的项目设计——这是电子商务项目的设计、制造、实施和管理的核心内容；那么本书也很适合你。

学习成果

本书将使你具备在电子商务的技术、商业和政策/法律方面的能力。如果你想创建新的电子商务公司，或者想在从事电子商务的公司中工作，这三个领域都是很重要的。不管你是准备参与开发和维护电子商务解决方案的项目，还是管理这类项目，这个观点都适用。

在本书中，电子商务概念包括市场营销、销售交易以及随后的数字产品和实物的买卖。焦点是后台和前台的解决方案。它包括互联网技术，也包括 EDI（电子数据交换）解决方案、后勤服务、支付系统和法律支持等方面。在这个程序中，电子商务不仅包括在互联网上采购商品，也包括公司之间和公司与公共部门之间的合作模式。

主要词汇

学习笔记

arena：舞台，竞技场。
project work：设计作业。

E-Commerce does not only include consumer purchases on the Internet, it also includes co-operative patterns between companies and in relation to the public sector.

Book Objective

The objective of the book is to transfer knowledge from research to students to support the maturing of E-Commerce application in business.

A graduate in E-Commerce must know the legal, business economic and organizational aspects of E-Commerce and understand how E-Commerce has an impact on e. g. the relationship between customer and supplier. In addition, the graduate must be well acquainted with the specific technical problems in connection with to E-Commerce.

Such a combination of professional aspects is important because in many ways E-Commerce is revolutionizing our methods of trading. It requires that a sufficient number of persons understand the challenges involved in E-Commerce.

Structure of book

The book covers the following areas:
- E-Commerce technologies, including E-Commerce infrastructure, standards, programming and distributed systems.
- Business models, including digital strategies, marketing and project management.
- Business policy and legal matters, including international and domestic trading conditions.

Special note to the Reader

Electronic Commerce refers to information technology enhanced or enabled trading among companies. Because external integration induces internal integration, intra-firm applications of information and communication technologies (ICTs) such as computer-supported collaborative work and workflow redesign are being brought into the domain of Electronic Commerce, and vice versa. This chapter examines the requirements for management skills in Electronic Commerce. It includes a summary of definitions of Electronic Commerce, sample E-Commerce business models, and a comprehensive worldwide analysis of university courses and programs in Electronic Commerce. It also includes a selective analysis of Electronic Commerce management training initiatives outside the university sphere.

Every country has one of the goal to achieve success in ecommerce. This goal is based on the recognition that foundations of competitiveness in a knowledge (or virtual) economy will be very different from those in a manufacturing or service economy. The most obvious and commented-upon difference is that in the knowledge economy, competitive firms are distinguished less by how they manage physical flows and more by how well they use the skills of "knowledge workers" to deliver value to customers, suppliers, and business partners. In a knowledge economy, ICTs are the equivalent of a company's nervous system or

本书的目的

本书的目的是向学生讲授研究中获得的知识，以支持电子商务在业务应用中的完善化。

电子商务专业的大学毕业生必须知道电子商务的法律、商业经济和组织方面，必须了解电子商务的影响，例如它如何影响客户和供应商之间的关系。此外，大学毕业生必须十分熟悉与电子商务有关的专业技术问题。

这种多专业的结合是重要的，因为电子商务正在许多方面彻底改变我们的交易方式；要求有足够多的人理解涉及电子商务的挑战。

本书的结构

本书的内容涵盖了下述领域：

- 电子商务技术，包括电子商务的基础设施、标准、程序编写和分发系统。
- 业务模型，包括数字策略、市场营销和项目管理。
- 业务政策和法律事务，包括国际和国内的贸易条款。

致读者

电子商务是指加强或实施公司之间交易的信息技术。因为外部集成导致内部集成，信息和通信技术（ICT）在公司内的应用，例如基于计算机的共同合作和流程再设计，正在进入电子商务领域，反之亦然。本书探讨电子商务对管理技能的要求，包括电子商务中各种定义的概述、电子商务业务模型的实例、有关电子商务的大学课程和程序的全球综合分析。它还对高教部门以外的电子商务管理培训的各种主动尝试做了选择性的分析。

每个国家都有在电子商务中取得成功的目标。这个目标基于下述认知，即知识经济（或虚拟经济）中的竞争力基础十分不同于制造业或服务业中的竞争力基础。最明显的、也是议论最多的区别是，在知识经济中，有竞争力的公司很少是由于如何管理实物流程而闻名，更多地是由于如何善于利用"知识工作者"的技能将价值交付给客户、供应商和业务伙伴而闻名。在知识经济中，信息和通信技术相当于公司的神经系统或知识网络。对于"基于知识"的公司，其竞争力的关键可变因素

主要词汇

maturing：成熟化，完善化。
distinguished：卓著的，著名的。
Innovation：创新。

学习笔记

knowledge network. The key variable in the competitiveness of a "knowledge-based" firm is its comparative ability to use new information and telecommunications technologies for purposes of internal and external coordination and innovation of distinct value-added products, services, and processes.

What are the best ways for a firm to learn to compete in the "knowledge economy"? Mastery of new technology can confer business advantages that nonadopters cannot hope to enjoy. However, from a technology user's point of view, it is clear that the newer and more complex the technologies, the riskier the business venture. Risk comes from uncertainty about the functionality of the technology as well as from uncertainty about the business value that it may generate. Furthermore, as greater numbers of firms learn to use a technology, it becomes so familiar that it confers no particular business advantage. Then it becomes a necessary but not sufficient condition of business success, like basic telephone or fax service today. Ability to successfully assimilate and exploit advanced information and communication technologies ahead of the industry curve requires that a firm possess two distinct skill sets. One is a technical skill set supplied by technologically competent ICT specialists who are generally located in the "technical core" of the firm. This technical core must be constantly renewed and refreshed. Around the core are the management and administrative functions, which provide internal coordination and link the firm to its business network. These functions embody the tacit business knowledge of the firm but not the firm's technology-dependent operational skills. The legendary problem of aligning the firm's technical capability with its business strategy arises in part through the mutual inability of the technical workers and management workers to understand each other's objectives and processes. This problem has grown so serious that numerous programs have been developed to provide hybrid management-technical training.

Increasingly, awareness is mounting that the intensive use of ICTs goes hand in hand with transformation of business models and processes. Thus attention is shifting to ways of developing a management skill set that is capable of generating business value from the firm's information and communication technology assets in conjunction with its other assets. Successful firms use these two skill sets to deliberately search for and experiment with combinations of technology and organization to produce value in the electronic marketspace. Typically, successful exploitation of Electronic Commerce requires making a creative link between an organization's strategy and the technology that supports it, and managing pervasive ICT applications that change very quickly, that are increasingly integrated and convergent, and that enable flexible and adaptive behavior on the part of the firm and its employees. These skills and this behavior are necessary in any firm seeking to establish itself in Electronic Commerce and are not the sole province of high technology firms or firms that produce technology for other firms to use. The transition to Electronic Commerce poses significant challenges to management. This chapter examines some of the emerging initiatives in the university sector to provide Electronic Commerce management skills to firms. We also provide a selective overview of the world of management training for Electronic Commerce outside the higher education sector.

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