普通高等教育“十二五”创新型规划教材

Jisuanji Zhuanye Yingyu

计算机专业英语

■ 主　编　蒋丽琴
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内容简介

计算机专业英语是计算机知识学习与英语能力培养的综合课程，是高等院校计算机专业学生重要的专业课程。本书根据此课程的特点，突出实用性与知识性，收集了大量计算机领域的最新技术资料；根据高等院校学生的特点，从易学性和实用性入手，做到内容难度适中；以词汇的掌握和短文的阅读理解为主要内容，并加入了英语语法知识和常用的缩略词注释。

本书分为12个单元，包括计算机基础知识、计算机硬件、计算机软件、办公软件、编程语言、数据库、计算机网络、多媒体、计算机安全、远程教育、电子商务和iPad电脑等，所涉及的计算机专业知识丰富，并注意与计算机技术专业课的协调性。每章配有相关习题，旨在提高读者的应用能力。

本书可作为高等院校计算机及相关专业的“计算机专业英语”课程的教材，也可作为广大计算机英语初学者的参考用书。

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前言 Preface

随着计算机技术日新月异地发展，从事计算机行业的人越来越多。近年来，我国高等院校十分注重人才的培养，大力提倡素质教育、优化知识结构，提倡每一个学生掌握计算机应用技术。本书编写的目的是让学生掌握计算机英语的基本专业术语，了解计算机专业的基本知识，培养从计算机英语资料中吸取新知识、获取新技能的能力，提高计算机专业知识和英语运用的综合能力。

本书是一本按计算机知识结构的层次组成的计算机技术教材，内容涵盖计算机硬、软件知识及计算机网络等专业知识。本书的计算机专业知识丰富，英语原文深入浅出，用简单的语言，表达了专业计算机概念，文字流畅，易读易懂。本书充分考虑到计算机英语的复杂性和实用性，针对高等教育的教学特点，精心组织，合理选材，内容新颖，紧跟时代。全书共 12 章，每章有一篇精读文章，一篇供学生课后自学的文章。精读文章后附有词汇和短语、注释以及大量的练习。学生自学的文章也附有词汇提示等内容。考虑到高等院校学生的学习需要，还介绍了英语基础语法知识，以方便学生提高英语水平。学好英语基础知识也是学好计算机英语的关键。

本教材由蒋丽琴、郜万伟、李留涛、宋新克、何婕、李奇共同编写。其中第 1 单元由何婕编写，第 2 单元由李奇编写，第 3 单元、第 4 单元由蒋丽琴编写，第 5 单元、第 6 单元、第 7 单元由郜万伟编写，第 8 单元、第 9 单元、第 10 单元由李留涛编写，第 11 单元、第 12 单元及计算机专业英语词汇表由宋新克编写。郜万伟、李留涛、宋新克进行了全文统稿，蒋丽琴进行了全文校对和审阅。

本书在编写时，参考了大量的文献资料，在此向这些文献资料的作者深表谢意。由于编者水平有限，缺点和错误在所难免，敬请各位读者和专家批评指正。

编　者

目录 Contents

Unit 1 Computer Basics

Text A: Computer in Our Lives

How can you know the latest news? Use your computer to read the website. How can you chat with your friends overseas cheaply? Use your computer to communicate on MSN. How can you avoid your unpleasant handwriting? Use your computer to write on the Microsoft Office Word. More and more people find it difficult to live normally without computers. There is no doubt that we use computers a lot for study, business and entertainment.

In the 1970s, it was not essential for the average people to know how to use a computer in his or her job/study and it was unknown to have a computer at home. Computers were large and expensive, and few people had access to them. Furthermore, the use of computers generally required a lot of technical knowledge. Most computers used in organizations just carried out high-volume paperwork processing, such as issuing bills and keeping track of customers and product balances. Most ordinary working people were afraid of computers and there were few good reasons for getting familiar with them.

Suddenly things began to change. In the 1980s, computers began to take up new roles in various forms. A simple computer could be a cash machine in a supermarket,

which does not look like a traditional one. In the past two decades, the price of components used for computers steadily fell due to higher technological advancement, reduced cost of manufacturing, stiffer competition, entrance of more manufacturers, new usage that simplified many processes, greater market demand and inevitability to higher productivity. ① And the trend of the usage of computers is changing rapidly, from governmental to civilian. Till now, the beginning of the 21st century, computers are becoming more powerful and functional and much closer to our daily lives. Microcomputers—inexpensive personal computers or PCs—were created and the use of computer increased dramatically. This increased use of computers has affected our personal lives.

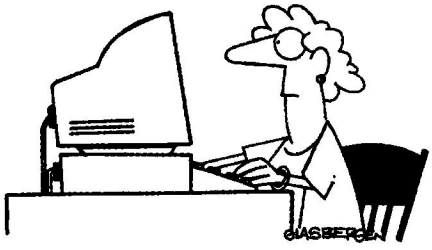
Today we are living in the midst of a computer revolution, where many jobs heavily depend on the creation, collection, use, and dissemination of information. What's more, this revolution is showing no signs of slowing down but accelerating. ② Whether you become a teacher, lawyer, doctor, professional athlete, executive, or skilled tradesperson, your performance will largely depend on information and you will use it. Today's computers, with their dizzying speeds and high level of accuracy and reliability, are continually taking on new roles in our society.

"No, you were't downloaded.
You were born."

The prominence of information technology over the last few decades has resulted in this time period being referred to as the information age. ③ Now according to many experts, we are entering a new information revolution, which is usually thought of as being tied to the vast amount of information accumulated and distributed via the Internet. ④ The availability of this huge collection of information has a great amount of advantages, but it has some disadvantages, as well.

The benefits of having such a computer-oriented society are numerous. The speed,

accuracy, and reliability of computers have changed the way we do business not just at a management level as initially projected, but on day-to-day operations. The capability to design, build, and test new buildings and other structures before the actual construction begins has led to safer buildings and a more efficient development cycle. The ability to shop, pay bills, do product research, and look up the vast amount of information available through the Internet from home or wherever you happen to be at the time is a huge convenience that few would have even dreamed about even a decade ago. And the ability of businesses to be open for business 24 hours, 7 days a week, 365 days a year via the Internet and operate more efficiently, as well, is a distinct advantage.



"Welcome to the Weight Loss Forum.
To lose one pound, double-click
your mouse six million times."

Along with the benefits of a computer-oriented society, computers have brought a variety of problems ranging from health concerns to personal security and privacy issues to ethics. Many businesses are feeling pressured to quickly become prepared to do business via the Internet or risk being left behind. Many jobs have also evolved with the emergence of the computers, such as including tasks previously performed by a secretary or an assistant, simply because the worker can now have a computer on his or her desk, briefcase, or pocket.

As far as privacy is concerned, individuals need to be aware of the vast amount of information that can be accumulated about them and distributed to others. Such information can be obtained from their online and offline buying history, as well as available public information, such as home purchases. The accumulation and distribution of information are important factors of our new-networked economy, and it is one area of great concern to many consumers.

Words and Expressions

latest: *adj.* 最近的,最新的
entertainment: *n.* 娱乐

essential: *adj.* 基本的
access: *n.* 进入
high-volume: *adj.* 大量的
keep track of: 记录
get familiar with: 熟悉;变得熟悉
take up: 承担
cash machine: 自动提款机;自动柜员机
component: *n.* 组件;元件
stiff: *adj.* 严厉的
simplify: *v.* 使……简化
inevitability: *n.* 必然性;不可逃避
productivity: *n.* 生产力;生产率;生产能力
civilian: *n.* 平民,百姓
dissemination: *n.* 宣传;散播
accelerate: *vt.* 使……加快;使……增速
executive: *adj.* 行政的;经营的 *n.* 经理;经理主管人员
performance: *n.* 绩效
dizzying: *adj.* 令人昏乱的;极快的
accuracy: *n.* 精确度,准确性
reliability: *n.* 可靠性
prominence: *n.* 突出;显著
accumulated: *adj.* 累积的;累计的
via: *prep.* 通过;经由
availability: *n.* 可用性;有效性;实用性
computer-oriented: *adj.* 以计算机为方向的
numerous: *adj.* 许多的
initially: *adv.* 最初,首先;开头
capability: *n.* 才能,能力;性能
convenience: *n.* 便利;方便
distinct: *adj.* 明显的;独特的
briefcase: *n.* 公文包
privacy: *n.* 隐私;秘密
individual: *adj.* 个人的;个别的 *n.* 个人,个体
obtain: *vt.* 获得
purchase: *vt/n.* 购买
networked: *adj.* 网络的

Notes

①In the past two decades, the price of components used for computers steadily fell due to higher technological advancement, reduced cost of manufacturing, stiffer competition, entrance of more manufacturers, new usage that simplified many processes, greater market demand and inevitability to higher productivity.

在过去的20年里,科学技术飞速发展让电脑制造成本降低,越来越多的电脑生产商的加入让行业竞争变得越来越残酷,批量生产电脑不可避免,同时,新技术让应用程序简化,加之电脑市场需求巨大,所有这些原因导致电脑配件的价格平稳下降。

这个句子较长,主语是the price,谓语是fell,due to的意思是"由于,因为"。在翻译这句话时,可以把due to后面的成分合并一些。

②What's more, this revolution is showing no signs of slowing down but accelerating.

而且,这场革命没有丝毫减速的迹象,相反它越来越快。

no(t)...but:不是……而是。

③The prominence of information technology over the last few decades has resulted in this time period being referred to as the information age.

过去几十年信息技术的蔓延让这个社会成了信息社会。

refer to:指的是。

④Now according to many experts, we are entering a new information revolution, which is usually thought of as being tied to the vast amount of information accumulated and distributed via the Internet.

现在,许多专家说我们正进入信息革命时代。在这个时代,我们与大量的信息绑定,这些信息通过因特网积累和传播。

think of as:把……看做。

tie to:与……联系在一起。

Exercises

Ⅰ. Decide whether the following statements are true (T) or false (F) in relation to the information in the text:

1. In the 1970s, it is very common that the computers were used in the study or job.

2. Computers began to take up new roles from the 1980s.

3. In the past two decades, the price of components used for computers steadily rose due to many factors.

4. Today the computer revolution has shown some signs of slowing down.

5. The 21st century is an information age, according to some experts.

6. Computers have offered us with many conveniences due to their capability and availability.

7. Even with computers, we cannot do business 24 hours, 7 days a week and 365 days a year.

8. We should show our concerns with computer security.

Ⅱ. Translate the following terms or phrases from English into Chinese and vice versa:

have access to	take up
due to	a great amount of
a variety of	准备,打算
参与,参加	一系列的
铺平道路	并行处理

Ⅲ. Complete each of the following statements with one of the four choices given below:

1. The reason why the computers were not popular in the 1970s is that _____.

A. people didn't like computers

B. they were large and expensive

C. it was unnecessary to use computers in their study and job

D. computers were not allowed to sell in the market

2. Of the following statements, which is incorrect in explaining why the price of components of computers fell steadily according to the text?

A. Technologies have advanced so much in the past few decades.

B. The competition in the computer market is much stiffer.

C. More and more manufacturers enter the computer market.

D. People hate to buy expensive computers.

3. Which of the following statements can show that the use of computers has affected our personal lives according to the text?

A. Not only government but also civilians make use of computers.

B. Many jobs heavily depend on the creation, collection, use, and dissemination of information.

C. Today's computers are continually taking on new roles in our society.

D. The first thing for all office ladies to do after entering offices is to turn on the

computers.

4. By using _____ we can achieve the round-the-clock business.

A. computer only B. computer and Internet

C. a lot of money D. hard work

5. Along with the benefits of a computer-oriented society, computers have brought a variety of problems ranging from the following aspects except _____.

A. personal security B. money waste

C. privacy issues D. health concerns

Ⅳ. Translate the following sentences into Chinese:

1. As far as privacy is concerned, individuals need to be aware of the vast amount of information that can be accumulated about them and distributed to others.

2. Many businesses are feeling pressured to quickly become prepared to do business via the Internet or risk being left behind.

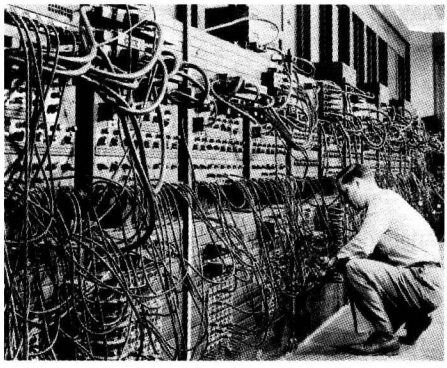
3. Whether you become a teacher, lawyer, doctor, professional athlete, executive, or skilled tradesperson, your performance will largely depend on information and you will use it.

4. Till now, the beginning of the 21st century, computers are becoming more powerful and functional and much closer to our daily lives.

5. More and more people find it difficult to live normally without computers.

Text B: Evolution of Computer

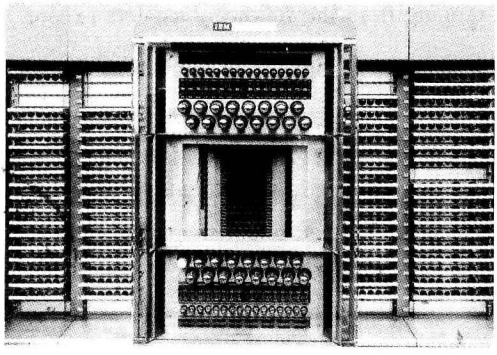
ENIAC, 1946



Regarded as the first general purpose electronic computer, the Electronic Numerical Integrator and Computer (ENIAC) was initially commissioned for the use in World

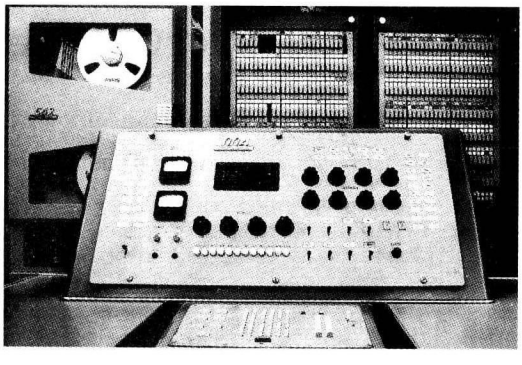
War II, but not completed until one year after the war had ended. Installed at the University of Pennsylvania, its 40 separate eight-foot-high racks and 18,000 tubes were intended to help calculate ballistic trajectories.

SAGE, 1954



A gigantic computerized air defense system, SAGE (Semi-Automatic Ground Environment) was designed to help the Air Force track radar data in real time[①]. Equipped with technical advances such as modems and graphical displays, the machine weighed 300 tons and occupied one floor of a concrete blockhouse.

NEC 2203, 1960



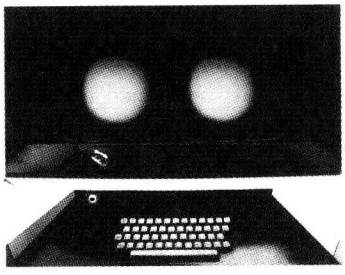
Manufactured by the Nippon Electric Company (NEC), the drum-based machine was one of the earliest transistorized Japanese computers. It was used for business, scientific and engineering applications.

IBM System/360, 1964

Part of a family of interchangeable computers, the IBM System/360 mainframe was the first to cover a complete range of applications, from small to large, from commercial

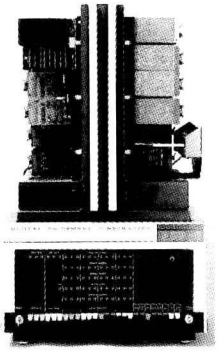
to scientific. Users were able to enlarge or shrink their setup without having to make headache-inducing software upgrades as well. Higher-end System/360 models had roles in NASA's Apollo missions as well as air traffic control systems.

CDC 6600, 1964



For a time the fastest machine in the world, Control Data Corporation's 6600 machine was designed by noted computer architect Seymour Cray. ② It retained its speed crown until 1969, when Cray designed his next supercomputer. ③

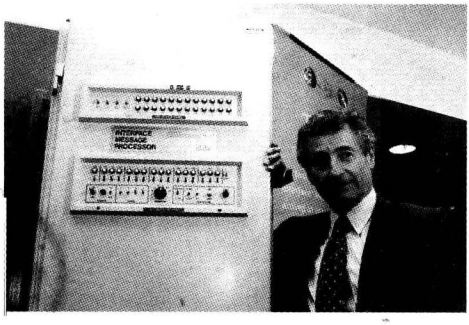
DEC PDP-8, 1965



The first successful commercial minicomputer, the PDP-8, made by the Digital Equipment Corporation, sold more than 50,000 units upon its release, the most of any

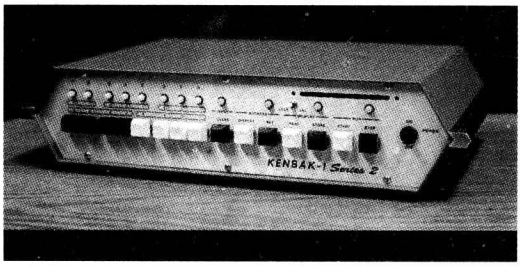
computer up to that time. Years before Apple and Gnu/Linux offered alternatives to the dominant IBM/Microsoft paradigms, DEC proposed its own vision, by encouraging users to educate themselves and take part in the evolution of the line.

Interface Message Processor(IMP), 1969



Conceived at the height of the Cold War, when the U. S. government sought a way to keep its network of computers alive in case certain nodes were destroyed in a nuclear attack or other hostile act, the IMP featured the first generation of gateways, which are today known as routers. As such, IMP performed a critical task in the development of the ARPANET (Advanced Research Projects Agency Network), the world's first operational packet switching④ network, and the predecessor of the contemporary global Internet.

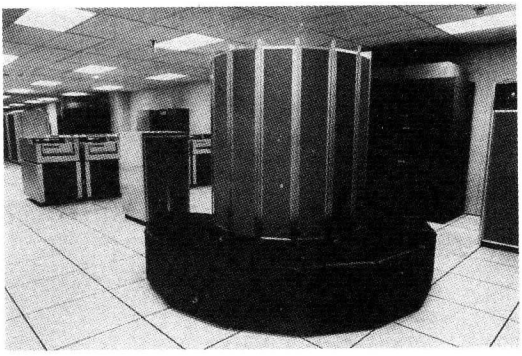
Kenbak-1, 1971



Often considered as the world's first "personal computer," the Kenbak was touted as an easy-to-use educational tool, but it failed to sell more than several dozen units. Lacking a microprocessor, it had only 256 bytes of computing power and its only output was a series of blinking lights.

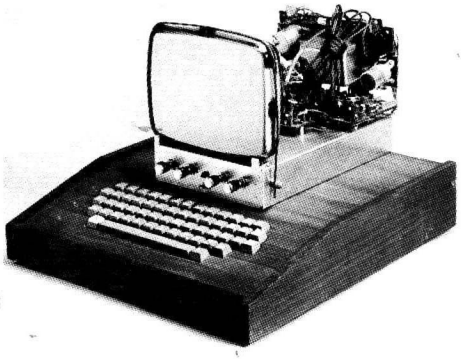
Cray-1, 1976

At the time of its release, the Cray-1, was the fastest computing machine in the



world. Despite its price tagged between $5 and $10 million, it sold well. It is one of the many machines designed by Seymour Cray, a computer architect who devoted his life to the creation of so-called supercomputers, machines which prioritized processing capacity and speed of calculation.

Apple I, 1976



Initially conceived by Steve Wozniak (a. k. a. "Woz") as a build-it-yourself kit computer, Apple I was initially rejected by his bosses at Hewlett-Packard. Undeterred, he offered it to Silicon Valley's Homebrew Computer Club and, together with his friend Steve Jobs, managed to sell 50 pre-built models to The Byte Shop in Mountain View, California. The suggested retail price: $666. Though sales were low, the machine paved the way for the smash success of the Apple Ⅱ.

IBM Personal Computer(IBM PC), 1981

Featuring[5] an independent keyboard, printer and monitor, the slick, complete-looking package which was the IBM PC helped push personal computing out of the hobbyist's garage and into the corporate and consumer mainstream. Its immense commercial success made it the hallmark of personal computing for many years and led other manufac-