



工业和信息化部普通高等教育
“十三五”规划教材立项项目



21 世纪信息管理
与信息系统系列教材

信息管理专业 英语教程

附全套音频 第3版

Information Management English

张强华 刘志鹏 司爱侠 张干帆 ● 编著



中国工信出版集团



人民邮电出版社
POSTS & TELECOM PRESS



工业和信息化普通高等教育
“十三五”规划教材立项项目



21 世纪**信息管理**
与**信息系统**系列教材

信息管理专业 英语教程

附全套音频 第3版

Information Management English

张强华 刘志鹏 司爱侠 张干帆 © 编著

人 民 邮 电 出 版 社

北 京

图书在版编目 (C I P) 数据

信息管理专业英语教程 : 附全套音频 / 张强华等编
著. — 3版. — 北京 : 人民邮电出版社, 2019.4
21世纪信息管理与信息系统系列教材
ISBN 978-7-115-50155-4

I. ①信… II. ①张… III. ①信息管理—英语—高等
学校—教材 IV. ①G203

中国版本图书馆CIP数据核字(2019)第010241号

内 容 提 要

本书是一本专业英语教程。全书主要围绕信息的概念、信息的组织、信息技术、数据库及数据仓库、数据分析与数据挖掘、数据可视化、商业智能、安全技术、管理信息系统、电子商务及电子政务等内容展开。编者根据多年的教学经验,精心安排内容,使读者既可学习专业英语也可获得最新专业知识。本书还针对课文设计了相关习题,读者可用之检验学习效果。

本书既可作为高等院校信息管理类专业的专业英语教材,也可作为培训班教材或供从业人员自学使用。

-
- ◆ 编 著 张强华 刘志鹏 司爱侠 张千帆
责任编辑 孙燕燕
责任印制 焦志炜
- ◆ 人民邮电出版社出版发行 北京市丰台区成寿寺路 11 号
邮编 100164 电子邮件 315@ptpress.com.cn
网址 <http://www.ptpress.com.cn>
山东华立印务有限公司印刷
- ◆ 开本: 787×1092 1/16
印张: 15 2019 年 4 月第 3 版
字数: 395 千字 2019 年 4 月山东第 1 次印刷
-

定价: 45.00 元

读者服务热线: (010)81055256 印装质量热线: (010)81055316

反盗版热线: (010)81055315

广告经营许可证: 京东工商广登字 20170147 号

前言

信息是最重要的资源之一。因此，信息管理在许多组织中具有重要地位，信息管理专业也应运而生，它承担着培养信息管理人才的重任。信息管理专业已成为我国最为普及的专业之一。

信息管理专业跨管理、网络及软件等各专业，具有很强的综合性。同时，信息管理的各组成部分也在高速发展中，具有国际化的特征。因此，信息管理人才的专业英语水平对其专业技能的发展至关重要，许多高校都把信息管理专业英语设为专业必修课。

根据当前行业的最新发展，我们精心选择了本书素材。课文既包括行业的基础知识和基本概念，也包括应用技术、软件及设备的相关知识，同时兼顾了行业最新的发展及未来动向。

本书以单元为单位，每个单元包括以下内容。

- Text A 及 Text B: 精心选择了两篇课文，既包括基本概念和基础知识，也包括行业应用，同时尽量覆盖行业的主要子领域。

- New Words: 给出课文中出现的新词，读者由此可以积累专业词汇。在选择单词时，我们主要选择公共英语中不常使用、而在专业英语中经常出现的单词，也选择了在专业英语中有特殊含义的单词。

- Phrases: 给出课文中的常用专业英语词组及部分非专业英语词组。

- Abbreviations: 给出课文中出现的、业内人士必须掌握的缩略语。缩略语在本行业中十分重要，必须给予充分的重视。

单词、词组和缩略语已经进行了计算机程序处理，排除了重复，并根据先出现先选择、Text A 优先于 Text B 的原则进行了整理。

- Notes: 对课文中出现的难句、长句、语法结构复杂的句子加以讲解。这有利于读者透彻领会难句的含义，也可以培养读者的阅读理解能力。

- Exercises: 练习巩固部分。其中，【Ex.1】检查读者对 Text A 课文的掌握情况；【Ex.2】巩固本课学习的英语单词；【Ex.3】培养读者将英文翻译成中文的能力；【Ex.4】通过短文选词填空，培养读者的篇章阅读能力和对整篇文章的领悟能力；【Ex.5】检查读者对 Text B 课文的掌握情况。

- Reading Material: 选择相关的材料，进一步扩大读者的视野。同时，对读者可能感觉困难的单词，在旁边注释了词义。

- 参考译文: 给出了 Text A 的参考译文，供读者参阅。

本书配有课文朗读音频，读者通过扫描二维码即可收听。另外，我们还提供了教学电子课件、单词表等资料，教师可以从人邮教育社区（www.ryjiaoyu.com）免费下载。如果读者有任何问题，可以通过电子邮件与我们交流。我们的 E-mail 地址：zqh3882355@sina.com；zqh3882355@163.com。

目 录

Unit 1	1	参考译文 信息技术	51
Text A How Is Information Organized	1	Unit 4	53
New Words	3	Text A Introduction to Networking and Terminology	53
Phrases	4	New Words	55
Notes	5	Phrases	56
Exercises	6	Abbreviations	56
Text B What Is Information Design	7	Notes	57
New Words	10	Exercises	57
Phrases	11	Text B The Difference Between Intranet and Internet Design	59
Abbreviations	11	New Words	61
Exercises	11	Phrases	62
Reading Material	11	Exercises	62
参考译文 信息是如何组织的	15	Reading Material	63
Unit 2	17	参考译文 网络系统及相关术语简介	67
Text A Information Economy	17	Unit 5	70
New Words	19	Text A Security Technology	70
Phrases	20	New Words	73
Abbreviations	21	Phrases	75
Notes	21	Abbreviations	75
Exercises	22	Notes	75
Text B GIS	24	Exercises	76
New Words	27	Text B Internet Vulnerabilities	78
Phrases	29	New Words	81
Abbreviations	29	Phrases	81
Exercises	29	Abbreviations	82
Reading Material	30	Exercises	82
参考译文 信息经济	33	Reading Material	82
Unit 3	35	参考译文 安全技术	87
Text A Information Technology	35	Unit 6	90
New Words	36	Text A Database Basic Concept	90
Phrases	39	New Words	93
Abbreviations	39	Phrases	94
Notes	39	Abbreviations	95
Exercises	40	Notes	95
Text B Network	42	Exercises	96
New Words	45	Text B DBMS	98
Phrases	46	New Words	102
Abbreviations	46		
Exercises	47		
Reading Material	47		

Phrases	103	Reading Material	167
Abbreviations	104	参考译文 数据挖掘	172
Exercises	104	Unit 10	175
Reading Material	105	Text A Management Information Systems	175
参考译文 数据库基本概念	109	New Words	177
Unit 7	112	Phrases	178
Text A Data Warehouse Frequently Asked Questions	112	Abbreviations	179
New Words	114	Notes	179
Phrases	116	Exercises	180
Abbreviations	116	Text B Data-Driven DSS	182
Notes	116	New Words	184
Exercises	117	Phrases	185
Text B Big Data	119	Abbreviations	186
New Words	122	Exercises	186
Phrases	125	Reading Material	186
Abbreviations	125	参考译文 管理信息系统	191
Exercises	126	Unit 11	193
Reading Material	126	Text A Electronic Commerce (I)	193
参考译文 数据仓库常见问题	130	New Words	195
Unit 8	133	Phrases	197
Text A Data Analysis	133	Abbreviations	198
New Words	136	Notes	198
Phrases	137	Exercises	199
Abbreviations	138	Text B Electronic Commerce (II)	201
Notes	138	New Words	204
Exercises	139	Phrases	205
Text B What Is ERP	141	Abbreviations	205
New Words	143	Exercises	205
Phrases	144	Reading Material	206
Exercises	145	参考译文 电子商务 (I)	209
Reading Material	145	Unit 12	211
参考译文 数据分析	150	Text A Data Visualization	211
Unit 9	153	New Words	217
Text A Data Mining	153	Phrases	218
New Words	156	Abbreviations	219
Phrases	158	Notes	219
Notes	159	Exercises	220
Exercises	160	Text B Business Intelligence	224
Text B Information System	161	New Words	226
New Words	165	Phrases	227
Phrases	166	Abbreviations	227
Abbreviations	167	Exercises	228
Exercises	167	Reading Material	228
		参考译文 数据可视化	231

Unit 1

Text A How Is Information Organized



As you are reading the materials that we've gathered together for this course, you are assimilating information. What you've just read is information that you will keep in short term memory until you decide if it is worth keeping for a longer time. Regardless of how long you keep it, we will keep it available for you to return to later or for future students to read and assimilate at a later date. We've made arrangements in a computer system to organize and store our information so that it is available for later use. This isn't always the case with information, though. Not everything is stored online, and, even if it is stored online, there is no guarantee that the information that you see today will still be there next week, and there is no guarantee that the material will be organized in a logical manner that will facilitate your finding it again.

Wow! Information sure is difficult to deal with, isn't it?

Well, let's not worry about how difficult it is to deal with information storage and retrieval at this stage of the game. Right now, let's just look at what information is and how libraries and solid research skills help you get the information you need.

1. What Is Information

Well, in human terms and in the broadest sense, information is anything that you are capable of perceiving. This can include written communications, spoken communications, photographs, art, music, and nearly anything that is perceptible. This really includes an enormous assortment of stimuli, but, realistically, everything we come in contact with is capable of providing and does provide us with some sort of information. So we are essentially minute organisms afloat in a sea of information.

For this course, and for the academic climate in which you are now situated, we'll focus on information as materials that have been stored in one manner or another that can educate us to a better understanding of our world. Information, then, is anything that can be documented in any form that can then be referred to later as means to understanding and to building new information. This course, for example, provides you with information that will help you to find, sort through, and interpret other information. In short, we have quite an undertaking ahead of us, since there is so much information to be had. But, take heart. We will succeed in our endeavors.

2. How Is Information Organized

If we consider information in the sense of all stimuli as information, then we can't really find organization in all cases. Your experience of the world may have some organization to it in that you plan trips and relationships and other daily activities, but you still have little control over what information you will receive even with the best planning and even in the most controlled environments. Information is one thing that no one has ever figured out how to kill.

If we examine information in the sense discussed here, then we can limit our focus and find patterns of organization for most of the information that we will need to find and use.

Traditionally, in libraries, information was contained in books, periodicals, newspapers, and other types of recorded media. It was accessible through a library's catalog and with the assistance of indexes, in the case of periodical and newspaper articles. Much of this is still true, but the means by which we discover organization have changed. We no longer consult a card catalog for information about a library's collection of information. We no longer consult a printed "Reader's Guide" for information on where to find articles about a certain subject. Most of these previously time-consuming tasks have been sped up by computerized "information systems". We still find information stored in libraries, and it is very well organized. We still find information stored in periodicals, newspapers, and other media, and these sources of information have their own systems of organization. The problem for most researchers is not that the information doesn't exist in a library or in a journal or in a magazine or in a motion picture, but that they have yet to discover the organizing principles that are designed to help them find the information they need.

For library materials, the organizing principle is a detailed subject classification system available for searching in an online "catalog". For journal articles, the organizing mechanism is typically an online indexing and/or abstracting system that allows researchers to access information by subject or by some other scheme. For newspaper articles, the organizing mechanism is typically an online indexing and/or abstracting system that allows researchers to access in a variety of means. The one thing common to all of these access systems is organization. People, experts in their fields, have taken the time and trouble to organize access to all the stored information that they can get their hands on in order to make it searchable and accessible to other people. In short, accessing good information is not just as simple as pointing your browser to Altavista or HotBot. Computers can help us to organize information and can even automate indexing and cataloging, but all of our accesses are ultimately created by other people. In short, finding information deliberately rather than serendipitously relies on many people describing myriad bits of information in a systematic manner that can be addressed consistently in an organized system.

Fortunately, for researchers, this organizing drive has been characteristic of people throughout history. History, itself, is something people have created and kept, hopefully as a means for teaching future people what to do and what not to do. So, when you click your mouse on a resource on the Internet and think that it is so wonderful, keep in mind that it is even more wonderful than you can imagine, but that there are also even better ways to find reliable information than just following any link that anyone happens to stick on the Internet.

Yes, you can find myriad sources of information online for free, but many of the materials that you

can really count on are not freely available, so you need to rely on organization, cataloging and indexing to take advantage of those “heavy duty” sources. And you can rely on libraries to continue to provide you with materials that you may never be able to access freely on the Internet. Information and organizing information is what libraries are about.

New Words

organize	['ɔ:gənaiz]	vt. 组织
material	[mə'tiəriəl]	n. 材料, 原料, 物资, 素材
assimilate	[ə'simileit]	vt. 吸收
regardless	[ri'gɑ:dli:s]	adj. 不管, 不顾, 不注意
arrangement	[ə'reindʒmənt]	n. 排列, 安排
store	[stɔ:]	vt. 存储
		n. 商店, 店铺; 贮藏, 贮备
guarantee	[,gærən'ti:]	n. 保证, 保证书, 担保, 抵押品
		vt. 保证, 担保
logical	['lɒdʒikəl]	adj. 逻辑的, 合理的
manner	['mænə]	n. 风格, 方式, 样式, 习惯
facilitate	[fə'siliteit]	vt. 使容易, 推动, 帮助, 促进
semester	[si'mestə]	n. 学期
enroll	[in'rəul]	vt. & vi. 登记, 招收; 参加, 成为成员
communication	[kə,mju:ni'keiʃn]	n. 通信, 沟通
perceptible	[pə'septibəl]	adj. 易见的, 可感觉的, 可认知的
enormous	[i'no:məs]	adj. 巨大的, 庞大的
assortment	[ə'sɔ:tmənt]	n. 分类
essentially	[i'senʃəli]	adv. 本质上, 本来
academic	[,ækə'demik]	adj. 学院的, 学术的
situate	['sitjueit]	vt. 使位于, 使处于
document	['dɒkjumənt]	n. 文件, 公文
sort	[sɔ:t]	n. 种类, 类别
		vt. 分类, 拣选
interpret	[in'tə:prit]	vt. 解释, 说明
undertaking	[,ʌndə'teikiŋ]	n. 工作; 承诺, 保证
endeavor	[in'devə]	n. 努力, 尽力
		vi. 尽力, 努力
experience	[iks'piəriəns]	n. & vt. 经验, 体验, 经历, 阅历
environment	[in'vaiərnmənt]	n. 环境
plan	[plæn]	n. & vt. 计划

academia	[ˌækə'di:mia]	n. 学术界, 学术环境
pattern	[ˈpætən]	n. 式样, 模式
traditionally	[trə'diʃənəli]	adv. 传统上
media	[ˈmi:diə]	n. 媒体; 介质
periodical	[ˌpiəri'ɒdikəl]	adj. 周期的, 定期的
		n. 期刊, 杂志
catalog	[ˈkætəlog]	n. 目录
assistance	[ə'sistəns]	n. 协助, 援助, 补助
index	[ˈindeks]	vt. 把……编入索引; 为……编索引
		n. 索引
consult	[kən'sʌlt]	vt. 查阅, 参考; 与……商量
subject	[ˈsʌbdʒikt]	n. 题目, 主题, 科目
principle	[ˈprinsəpl]	n. 法则, 原则, 原理
classification	[ˌklæsifi'keiʃən]	n. 分类, 分级
previously	[ˈpri:viesli]	adv. 先前, 以前
mechanism	[ˈmekənizəm]	n. 机械装置, 机构, 机制
scheme	[ski:m]	n. 安排, 配置, 计划
access	[ˈækses]	n. & vt. 访问, 存取
trouble	[ˈtrʌbl]	n. 烦恼, 麻烦
browser	[ˈbrauzə]	n. 浏览器; 浏览书本的人
automate	[ˈɔ:təmeit]	vt. 使自动化, 自动操作
deliberately	[di'libərətli]	adv. 故意地
serendipitous	[ˌserən'dipitəs]	adj. 偶然发现的
fortunately	[ˈfɔ:tʃənətli]	adv. 幸运地
characteristic	[ˌkærɪktə'ristik]	adj. 特有的, 表示特性的, 典型的
		n. 特性, 特征
click	[klik]	vt. 点击
myriad	[ˈmiriəd]	n. 无数
		adj. 无数的, 种种的
imagine	[i'mædʒɪn]	vt. 想象, 设想

Phrases

even if	即使, 纵然
worry about	担心
deal with	安排, 处理
take care of	照顾, 关心
right now	立刻, 马上
after all	毕竟, 终究; 别忘了

focus on	集中
in short	简而言之，总之
take heart	鼓足勇气
figure out	解决，判定，领会到，合计为
in the case of	在……的情况下
speed up	加速，加快
take (the) trouble	尽力设法；不怕费事
in order to	为了
rely on	依靠，信赖，指望
count on	依靠，指望
be able to	能，会

Notes

[1] What you've just read is information that you will keep in short term memory until you decide if it is worth keeping for a longer time.

本句中, What you've just read 是一个主语从句, that you will keep in short term memory until you decide if it is worth keeping for a longer time 是一个定语从句, 修饰和限定表语 information。在该定语从句中, until you decide if it is worth keeping for a longer time 是时间状语从句, 修饰谓语 will keep。在该时间状语从句中, 从句 if it is worth keeping for a longer time 作 decide 的宾语。

[2] Not everything is stored online, and, even if it is stored online, there is no guarantee that the information that you saw today will still be there next week, and there is no guarantee that the material will be organized in a logical manner that will facilitate your finding it again.

本句中, Not everything is stored online 是一个部分否定的句子, 意思是“并非所有的东西都在线存储”。even if 引导了一个让步状语从句, 意思是“即使”。that you saw today 是定语从句, 修饰和限定 the information。that will facilitate your finding it again 也是定语从句, 修饰和限定 a logical manner。

[3] The problem for most researchers is not that the information doesn't exist in a library or in a journal or in a magazine or in a motion picture, but that they have yet to discover the organizing principles that are designed to help them find the information they need.

本句中, The problem for most researchers 是主语, is 后面的部分是表语。not that...but that 的意思是“并非……, 而是……”。that are designed to help them find the information they need 是定语从句, 修饰和限定 the organizing principles。在该定语从句中, they need 是定语从句, 修饰和限定它前面的 the information。

[4] People, experts in their fields, have taken the time and trouble to organize access to all the stored information that they can get their hands on in order to make it searchable and accessible to other people.

本句中, that they can get their hands on 是定语从句, 修饰和限定 all the stored information。in order to make it searchable and accessible to other people 作目的状语, it 指 all the stored information。take the time and trouble to do sth.的意思是“花费时间和精力设法去做某事”。

Exercises

【Ex.1】根据课文内容，回答以下问题。

1. What is information in human terms and in the broadest sense?

2. What does information include?

3. What happens if we consider information in the sense of all stimuli as information?

4. Can anyone kill information?

5. Where was information contained in libraries traditionally? How did people access it?

6. What speeds up most of these previously time-consuming tasks?

7. What is the problem for most researchers now to find information?

8. For library materials, what is the organizing principle?

9. What is the one thing common to all of the access systems mentioned?

10. Is accessing good information just as simple as pointing your browser to Altavista or HotBot?

【Ex.2】根据给出的汉语词义和规定的词类写出相应的英语单词。每个单词的首字母已给出。

<i>n.</i> 取回，恢复，修补；检索	<u> r </u>
<i>n.</i> 机械装置，机构，机制	<u> m </u>
<i>adj.</i> 特有的，表示特性的，典型的	<u> c </u>
<i>n.</i> 分类，分级	<u> c </u>
<i>n.</i> 风格，方式，样式，习惯	<u> m </u>
<i>n.</i> 文件，公文	<u> d </u>
<i>vt.</i> 解释，说明	<u> i </u>
<i>vt.</i> 使自动化，自动操作	<u> a </u>
<i>n.</i> 分类	<u> a </u>
<i>n.</i> 法则，原则，原理	<u> p </u>
<i>n.</i> 排列，安排	<u> a </u>
<i>n.</i> & <i>vt.</i> 访问，存取	<u> a </u>
<i>n.</i> 浏览器，浏览书本的人	<u> b </u>
<i>n.</i> 目录	<u> c </u>
<i>n.</i> 索引	<u> i </u>
<i>n.</i> 材料，原料，物资，素材	<u> m </u>
<i>n.</i> 媒体；介质	<u> m </u>
<i>n.</i> 安排，配置，计划	<u> s </u>

【Ex.3】把下列句子翻译为中文。

1. Some people believe that leadership occurs only at the top levels of organizations and managing occurs at the levels farther down the organizations.

2. A project manager is in charge of developing a certain project.

3. A functional manager is in charge of a major function.

4. Similarly, a product line manager is in charge of a group of closely-related products.

- 5. The term “supervisor” typically refers to one’s immediate superior in the workplace, that is, the person whom you report directly to in the organization.
- 6. A key issue in accomplishing the goals identified in the planning process is structuring the work of the organization.
- 7. The purpose of the organizing function is to make the best use of the organization’s resources to achieve organizational goals.
- 8. The formal organization can be seen and represented in chart form.
- 9. The informal organization is the network, unrelated to the firm’s formal authority structure, of social interactions among its employees.
- 10. The supervisor must realize that the informal organization affects the formal organization.

【Ex.4】从下列词中选择适当的词填空。

crucial	Internet	statistics	theory	crossroads
mobile	lossless	engineering	measures	compression

Applications of fundamental topics of information theory include 1 data compression (e.g. ZIP files), lossy data 2 (e.g. MP3s), and channel coding (e.g. for DSL lines). The field is at the 3 of mathematics, 4 , computer science, physics, neurobiology, and electrical 5 . Its impact has been 6 to the success of the Voyager missions to deep space, invention of the CD, feasibility of 7 phones, development of the 8 , study of linguistics and of human perception, understanding of black holes, and numerous other fields. Important sub-fields of information 9 are source coding, channel coding, algorithmic complexity theory, algorithmic information theory, and 10 of information.

Text B

What Is Information Design



Information design has arguably been around since humans were scribbling on cave walls, but the term has only gathered recognition within the last 25 years. For those of you not familiar with the term information design, the Society of Technical Communicators Special Interest Group on Information Design provides the following definition:

“The field of information design applies traditional and evolving design principles to the process of translating complex, unorganized, or unstructured data into valuable, meaningful information. The practice of information design requires an interdisciplinary approach which combines skills in graphic design, writing and editing, instructional design, human performance technology, and human factors.”

If we apply this definition broadly, it means that virtually anything written or drawn would fall under the heading of information design. Both traditional offline documents (e.g. advertisements, marketing collateral, technical documentation) and new media online documents (e.g. websites, product user interfaces) match the description. Frankly, it seems reasonable to assume that any type of

information should be carefully planned and executed in order to meet the needs of the target audience.

Furthermore, with the electronic delivery of information and the Internet, information is becoming more complex. In the past, information was designed for a single output. Today, through the use of these technologies, information is being designed for display in multiple outputs. For example, the traditional product specification can now be delivered on multiple media, using technologies to address multiple audiences. The product specification may be delivered in multiple forms: as a paper-based spec sheet, as a section in a user guide or technical manual, as part of a web page, and even inside the product user interface.

So it stands to reason that the demand for information design and information designers will only increase as businesses continue to deliver their information in multiple forms using multiple technologies. And this demand will only grow as we invent additional ways to deliver information to consumers using new technologies.

Who Are Today’s Information Designers

So if there is so much demand for information design, where are all the information designers? It turns out that they are out there, in the business world, hiding under different names. Today, the practice of information design requires multiple skills such as graphic design, human factors design, writing and programming. As a result, it is fair to say that anyone who possesses any one of these skills (e.g. graphic designers, copywriters, technical writers, user interface designers, web developers) can justifiably call himself or herself an information designer.

Who Are Tomorrow’s Information Designers

Herein lies the dilemma. If these people really are information designers, shouldn’t they be able to perform a variety of these skills? Using the definition above, if you were hiring an information designer, wouldn’t you ideally want them to have at least some degree of skill in information organization, graphic design, writing, screen layout, web client-server scripting, human-computer interaction design, instructional design and usability testing?

While there are varied opinions on the answer to this question, we believe that the next generation of information designers will learn, practice and perfect several of the skills currently performed by multiple people. Over the long term, we believe there will be a skill convergence as people slowly add new skills to their personal inventory. In effect, they will become “workplace chameleons” switching from one skill to another depending upon the project requirements and timings.

Over time, we believe that this combination of skills will become the norm and may even become mandatory for many information design positions. Given the current economic climate, employers are already demanding more from their prospective new hires. As evidence of this trend, look at the career section in your local newspaper and you will see that employers are now asking for combination skill sets for many jobs. Companies are looking for people who can simultaneously write, design and develop websites. With a small amount of cross-training, many of today’s information designers could position themselves for these multi-skilled jobs.

Why Should You Care

Frankly, the answer to this question depends on who you are. If you're an existing information designer, you should be thinking about this evolution from both a financial and job security perspective. If you're an employer, you should be looking at it from a productivity and financial perspective.

Consider the case of the information design contractor. We believe that adding new skills to your inventory will enable you to command a higher salary. As a contractor, you become the "cream of the crop". Many years ago, I ran a consulting business that specialized in the writing and design of both print and online information. With multiple skills, I was able to charge approximately 50% more than my competitors for my services and was never out of work. Why? Because my clients understood that they could single-source the job rather than having to source a writer, a designer and a programmer. In effect, they were getting the work of three for the price of one-and-a-half and they didn't have to deal with the logistical headaches of managing three people. The same model is even more appropriate in today's economic environment.

As an employee, the same holds true and you have the added bonus of increasing your job security. Multiple skills make you more immune from layoffs. Think about it—who would you layoff? Robin who knows how to write, design and script the website or Jeff who writes well but can't design or script to save his life? The answer is obvious. Unless Jeff is a budding "Shakespeare", he'll probably end up as a roadkill on the information highway.

From an employer's perspective, the answer to the question is even more obvious. Who would you rather employ? A person who can perform one skill or a person who can perform multiple skills?

From a cost perspective, you may end up paying a little bit more (or in this economy, maybe the same); but from a management perspective, you will be saving a whole lot of time and trouble. For example, imagine you are a project leader and you are assembling a project team. Think about the logistical problems associated with assembling and managing a team in order to deliver one online and offline document.

Now, think about your employee attrition strategy for a moment. Today, if the graphic designer quits, three other people and the project are affected by the departure. Tomorrow, if you have several people with multiple skills, the problem becomes one of scheduling while you re-balance the workload instead of a disaster recovery program while you find a person capable of performing the skill.

What Does All This Mean

Despite the recent "dotcom" stock market meltdown, the Internet is clearly here to stay. In fact, the Internet is still growing at a stunning 46% per year. Ironically, the article I have referenced here laments the fact that Internet growth is slowing. Frankly, most CEOs would be in ecstasy over these "slow" growth rates. This means that most companies have now doubled their information design requirements. Whether they like it or not, they must now feed two media beasts: traditional print media and new electronic media.

In the long term, this will translate into increased market demand for those who possess information design skills. For those individuals who are flexible and savvy enough to add multiple skills to their inventory, it stands to reason that the next decade promises to be at least as rewarding as the last.

New Words

arguably	['ɑ:ɡjuəbli]	adv. 可论证地
scribble	['skribl]	n. 潦草的写法, 潦草写成的东西 vt. & vi. 潦草地写, 乱写
recognition	[,rekəɡ'niʃən]	n. 赞誉, 承认, 重视, 赏识, 识别
familiar	[fə'miliə]	adj. 熟悉的, 常见的 n. 密友, 常客
interdisciplinary	[,intə'disiplinəri]	adj. 学科间的, 跨学科的
instructional	[in'strʌkʃənəl]	adj. 指导的, 教育的
virtually	['vɜ:tjuəli]	adv. 事实上, 实质上
advertisement	[əd'vɜ:tismənt]	n. 广告, 做广告
collateral	[kə'lætərəl]	adj. 附属的, 附带的
frankly	['fræŋkli]	adv. 坦白地, 真诚地
furthermore	[fə:ðə'mɔ:]	adv. 此外, 而且
delivery	[di'livəri]	n. 传输, 交付, 交货
specification	[,spesifi'keiʃən]	n. 详述; 规格, 说明书, 规范
invent	[in'vent]	vt. 发明, 创造
possess	[pə'zes]	vt. 占有, 拥有, 持有; 摆布, 支配
justifiable	['dʒʌstifiəbl]	adj. 有理由的
convergence	[kən'vɜ:dʒəns]	n. 集中, 聚合
chameleon	[kə'mi:ljən]	n. 变色龙
mandatory	['mændətəri]	adj. 命令的, 强制的; 托管的
demanding	[di'mɑ:ndiŋ]	adj. 要求高的, 苛求的
simultaneously	[siməl'teiniasly]	adv. 同时地
contractor	[kən'træktə]	n. 订约人, 承包人
approximately	[əprɒksi'mətli]	adv. 近似地, 大约
bonus	['bəunəs]	n. 奖金, 红利
immune	[i'mju:n]	adj. 免疫的
layoff	['leio:f]	n. 解雇; 操作停止; 失业期
attrition	[ə'triʃən]	n. 损耗, 摩擦, 磨损
meltdown	['meltdaun]	n. 彻底垮台
ironically	[ai'rɒnikəli]	adv. 说反话地, 讽刺地
lament	[lə'ment]	vi. 悔恨, 悲叹 n. 悲伤
ecstasy	['ekstəsi]	n. 入迷, 狂喜
decade	['dekeid]	n. 十年, 十
rewarding	[ri'wɔ:diŋ]	adj. 报答的, 有益的, 值得的

Phrases

fall under	归入……类别，列为……项目，受到
stands to reason	明显合理，按照常情
turns out	产生，结果是，出来
as a result	结果
in effect	实际上，事实上，有效
depend upon	依靠，决定于
over time	随着时间的过去
end up	结束
be in ecstasy over	对……心醉神迷
instead of	代替，而不是
at least	至少

Abbreviations

CEO (Chief Executive Officer)	执行总裁，首席执行官
---------------------------------	------------

Exercises

【Ex.5】根据文章所提供的信息回答问题。

1. When has information design gathered recognition?
2. What does information design mean according to the Society of Technical Communicators Special Interest Group on Information Design?
3. What happens to information with the electronic delivery of information and the Internet?
4. What does the practice of information design require today?
5. What will the next generation of information designers do?
6. What will the next generation of information designers become?
7. What should you do if you're an existing information designer? What should you do if you're an employer?
8. In the case of the information design contractor, what do we believe?
9. What are the two media beasts that most companies must feed now?
10. What does the next decade promise to be for those individuals who are flexible and savvy enough to add multiple skills to their inventory?

Reading Material

阅读下列文章。尽管已经加注，有的单词可能还需要查词典。