



“十三五”普通高等教育规划教材

BASIC READINGS IN SCIENTIFIC ENGLISH
THE SECOND EDITION

科技英语基础阅读 (第二版)

龚玲莉 王纪红 主编



中国电力出版社
CHINA ELECTRIC POWER PRESS



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内 容 提 要

本书为“十三五”普通高等教育规划教材。

本书分为8个单元，每单元设置一个主题，涉及计算机、机器人、能源、环境科学、材料工程、土木工程、通信、健康等多个领域，选材多来自于国外报刊、专业期刊和网络。每单元由四部分组成：第一部分是导入，通过听力理解引出本单元，听力材料选自最新的科技报道，如VOA等；第二部分是单元主体，由两篇阅读和相关练习构成。课后练习形式多样，分别针对各篇章和细节理解、科技词汇、语法及翻译设置任务；第三部分是与单元主题相关的英语视频讲座，旨在提高理解能力和科技口语听说能力；第四部分为词汇测试，巩固学生语言基石。每单元后面另附一则科学笑话。本书突出科技英语的特点，体现基础英语、科技英语和专业知识的三结合，语言现象丰富，可读性较强，有利于教学，便于自学。

本书不仅适合工程专业本科生学习，还可以作为英语专业科技英语类课程的教材或研究生教材，以及英语爱好者的参考书。

图书在版编目(CIP)数据

科技英语基础阅读/龚玲莉,王纪红主编. —2版. —北京:中国电力出版社,2019.8
“十三五”普通高等教育规划教材
ISBN 978-7-5198-3282-7

I. ①科… II. ①龚… ②王… III. ①科学技术—英语—阅读教学—高等学校—教材 IV. ①G301

中国版本图书馆CIP数据核字(2019)第130920号

出版发行:中国电力出版社

地 址:北京市东城区北京站西街19号(邮政编码100005)

网 址:<http://www.cepp.sgcc.com.cn>

责任编辑:冯宁宁(010-63412537)

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责任印制:钱兴根

印 刷:三河市航远印刷有限公司

版 次:2015年8月第一版 2019年8月第二版

印 次:2019年8月北京第三次印刷

开 本:787毫米×1092毫米 16开本

印 张:9

字 数:214千字

定 价:30.00元

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本书如有印装质量问题,我社营销中心负责退换

前言

Preface

大学英语是高等教育的一个有机组成部分，是大学生一门必修的基础课程。中国大学英语教学完成了从结构语言学向认知语言学语境的转变，成绩有目共睹；但中国大学外语教学正经历新的危机，根源就是大学英语教学和专业人才培养的断裂。大学英语教学并不是一个独立的体系，它是专业人才培养体系的亚体系，必须呼应学习目标、专业指向的个性化诉求。

“卓越工程师大学外语”系列教材是为适应我国高等教育发展、工程人才培养和大学外语教学改革需要而开发的。该系列教材是编者多年思考和实践的成果，分为“外语技能提升”“工程文化拓展”“工程学科认知”三大类。“外语技能提升”类主要针对学生听、说、读、写、译等单项技能培养，密切关注社会等级考试和外语能力证书考试。“工程文化拓展”类目的是拓展学生的国际视野，培养学生跨文化意识，密切关注时事背后的文化动因。“工程学科认知”类以专业学科为基础，培养学生以国际的眼光认知所从事的学科和基本学术规范。

本书为“工程学科认知”类教材，旨在通过地道、原汁原味的科技时文，提高学生科技英语阅读和理解能力；同时，开拓学生的视野，提升学生的英语科学思辨能力。本书在上一版基础进行了修订，更换了部分文章。使用本教材时应注意把学习重点放在原来在基础英语学习阶段没有掌握好或没有提及的语言点上。特别要求读者能读懂每篇课文，能独立精心地完成各种练习题，书后给出了课文的参考译文和部分练习题的参考答案，供读者作为自我检查之用。本书适用于有一定大学英语基础的本科学生，建议修读学期为第二、第三学期。

本书由天印外语教育工作室组织编写，是教育部重点课题“卓越计划视野下的大学英语教学改革”（GPA11051）和南京工程学院教改重点课题“新形势下应用型本科高校大学英语教学改革”（JG201331）的阶段性成果。本书编写任务如下：王纪红编写第一单元、第八单元；曹恒林编写了第二单元、第七单元；庄卫编写第四单元、第五单元；第三单元和第六单元由王纪红、曹恒林和庄卫共同编写；龚玲莉编写了每个单元的科学笑话。徐斌、秦小青、薛舒、袁小明参与了编写。王纪红负责全书的统编定稿。南京工程学院蒋静老师担任主审。

本书力求探索全新的教学模式，不妥之处在所难免，敬请各位同行和使用者批评指正。

编者

2019年2月

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全书音频总码

Unit 1 Computers and Network

Part I Listening for technology



Task 1 Here is a technology report from VOA Learning English. Complete the following missing words or phrases according to what you have heard.

Technology can change the way you look at the world.

Augmented reality and virtual reality are two of the ways that tech can change the way you look at the world. The terms can be 1.

Augmented Reality

Augmented reality and virtual reality are increasingly used in technology, so knowing the difference is important.

Augmented reality is defined as “an 2 version of reality created by the use of technology to add digital information on an image of something.”

AR is used in apps for smartphones and tablets. AR apps use your phone’s camera to show you a view of the real world in front of you, then put a 3 of information, including text and/or images, on top of that view.

Apps can use AR for fun, such as the game Pokémon GO, or for information, such as the app Layar.

The Layar app can show you interesting information about places you visit, using 4. Open the app when you are visiting a site and read information that appears in a layer over your view.

You can also find money machines, see real estate for sale, find restaurants, and more using the AR feature of the app. You may even discover new sites you did not know existed.

Layar is available free for Android on Google Play and iPhone and iPad at the iTunes App Store.

Virtual Reality

Virtual Reality is defined as “the use of computer technology to create a 5 environment.”

When you view VR, you are viewing a completely different reality than the one in front of you.

Virtual reality may be 6, such as an 7 scene, or an actual place that has been

photographed and included in a virtual reality app.

With 8, you can move around and look in every direction — up, down, sideways and behind you, as if you were physically there.

You can view virtual reality through a special VR viewer, such as the Oculus Rift. Other virtual reality viewers use your phone and VR apps, such as Google Cardboard or Daydream View.

With virtual reality apps, you can explore places you have never been, such as the surface of Mars, the top of 9, or areas deep under the sea. The New York Times has a virtual reality app that lets you experience virtual 10 on Earth and other planets.

Google Earth also has a virtual reality app.



Task 2 Answer the following questions based on the above listening passage.

1. What is AR?

2. What is VR?

3. According to the news above, what are the differences between the two?

Part II Reading for exploration

Passage A

Lead-in



Task 3 Work in groups and find information on the Internet about iPhone products ; then, fill in the graph and report the information you have found by giving a PowerPoint presentation to the class.

KWL

Topic: _____		
K What I know	W What I want to know	L What I have learned



Task 4 Find out the meaning of the following scientific words or phrases with the help of dictionaries.

- | | | | |
|------------------------------------|-------|--------------------------|-------|
| 1. blockbuster product | _____ | 2. consumer satisfaction | _____ |
| 3. price-to-earnings ratio | _____ | 4. wearable device | _____ |
| 5. research and development | _____ | 6. ad blockers | _____ |
| 7. information-technology industry | _____ | 8. red tape | _____ |

Text

The New old Thing^①

*Apple is struggling to find another **blockbuster** product. The old one might do.*



① APPLE^② has a new hit device, so popular that it has sold out across most of America and Britain. If you order it online it takes six weeks to arrive. “Best Apple product in a long time,” sings one online review. Useful and (of course) **slickly** designed, it enjoys the highest consumer satisfaction of any Apple product in history, according to a study by two firms, Creative Strategies and Experian^③.

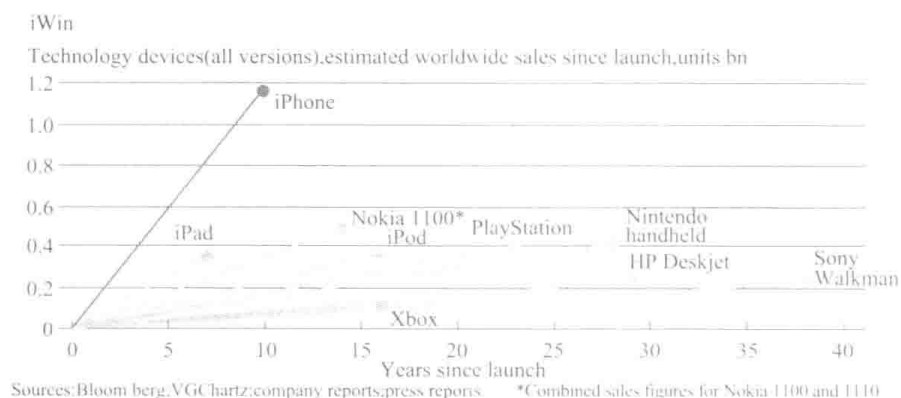
② Such enthusiasm must be bittersweet for Apple’s bosses. The gadget in question is AirPods, a set of **wireless** headphones that look a lot like Apple’s traditional ear buds, just without a wire. Priced at \$159, AirPods could become a business worth billions of dollars, like the Apple Watch, a **wearable** device that Apple started selling in 2015. But headphones are hardly the **transformative**, vastly profitable **innovation** that many have been waiting for.

③ That wait started only a few years after its biggest blockbuster launched. On June 29th 2007 the iPhone first went on sale. Since then Apple has sold some 1.2bn phones and **notched up** more than \$740bn in sales from the bestselling tech gadget in history (see chart). Two-thirds of Apple’s \$216bn in sales in 2016 came from the iPhone.

① From *the Economist* Jul 1st 2017. *The Economist* is an English-language weekly magazine-format newspaper owned by the Economist Group and edited at offices in London. *The Economist*’s primary focus is world events, politics and business, but it also runs regular sections on science and technology as well as books and the arts. Approximately every two weeks, the publication includes an in-depth special report.

② Apple was founded by Steve Jobs, Steve Wozniak, and Ronald Wayne in April 1976 to develop and sell personal computers. It was incorporated as Apple Computer, Inc. in January 1977. Apple Inc. is an American multinational technology company headquartered in Cupertino, California that designs, develops, and sells consumer electronics, computer software, and online services. The company’s hardware products include the iPhone smartphone, the iPad tablet computer, the Mac personal computers, the iPod portable media player, the Apple Watch smartwatch, and the Apple TV digital media player.

③ Experian plc is a global information services group with operations in 40 countries. The company now employs 17,000 people with corporate headquarters in Dublin, Ireland. It is listed on the London Stock Exchange and is a constituent of the FTSE 100 Index. 益博睿 (Experian) 是全球领先的信息服务公司



④ Atop a hill there is usually nowhere to go but down. Questions about the future of the iPhone and whether Apple will ever design another product to match it pursue the company. The **relentless** rise of smartphone **ownership** is slowing, with around two-fifths of the global population now owning one. Apple is also facing more competition, especially in China (its second most important market after North America) where sales have been declining, lending weight to fears that Apple is experiencing “peak iPhone”.

⑤ Even though Apple has been spending \$10bn a year on research and development, “people aren’t banking on innovation”, says Amit Daryanani of RBC Capital Markets, a bank. That helps to explain why the firm’s shares are valued on a price-to-earnings ratio of around ten times its forecast 2018 earnings (stripping out cash), lower than the 12-14 times that the information-technology industry trades on.

⑥ Certainly, Apple’s attempts to diversify away from its hit product have been flawed. One disappointment has been television, worth some \$260bn globally. ItsTV offering is a cable box that is little more than a **portal** to content from other firms, such as Netflix^①, not the **disruptive** offering that Apple executives promised.

⑦ There is also justified **scepticism** about another possible avenue for growth: personal transportation, an industry that is worth some \$10trn. In June, for the first time, Tim Cook^②, Apple’s chief executive, publicly discussed the firm’s ambition to develop an **autonomous**-car system. Apple could surely design a sleek car, but the big shift is away from ownership toward transportation as a service. Routing cars to specific places, as Uber^③ does, is a leap.

⑧ Many people believe that Apple could expand in health care, on which people spend an estimated \$8trn each year globally. Today Apple allows people to store their fitness information on

① Netflix, Inc. is a provider of on-demand Internet streaming media available to viewers in all of North America (except Cuba), South America and parts of Europe and of flat rate DVD-by-mail in the United States, where mailed DVDs are sent via Permit Reply Mail.网飞公司

② Timothy Donald “Tim” Cook (born November 1, 1960) is an American business executive, and is the CEO of Apple Inc.

③ Uber Technologies Inc. is an American technology company headquartered in San Francisco, California, United States, operating in 633 cities worldwide. It develops, markets and operates the Uber car transportation and food delivery mobile apps. Uber has been a pioneer in the sharing economy and the changes in industries as a result of the sharing economy have been referred to as “Uberification” or “Uberisation”.

their devices and offers a platform for developers to create health and fitness apps. But it is as yet unclear what Apple's edge will be. Its **stance** on consumers' privacy, which it protects more **assiduously** than other technology giants, may be an advantage. But dealing with a complex web of companies and reams of red tape, as any foray into health care would require, would again be a big departure from what it is used to.

⑨ Part of Apple's difficulty in finding the next big thing may be that it is still steered by a small, **insular** group of executives who have mostly been at the firm since the 1990s. They include Mr Cook, who took over shortly before the death of Steve Jobs, the firm's adored founder, in 2011. Apple is not good at hiring people from outside who could help bring new skills and ideas. Other companies have a far better record of bringing outsiders into the fold. Amazon's Prime^① video offering and the work that formed the basis for Echo, its home speaker, drew on newcomers' expertise.

⑩ Yet Apple will have every chance to adapt because of the enduring strength of its hit product. The iPhone business will not grow as rapidly as in the past but it will remain more important for far longer than people think, says Ben Thompson of Stratechery, a research firm. The iPhone 8, due to be unveiled in September, is likely to be innovative enough to encourage around 250m-300m iPhone users to upgrade, driving a new "supercycle" of sales.

⑪ By encouraging app developers to start work on AR now, Apple will have a two- or three-year head start on Google's Android operating system, says Tim Bajarin of Creative Strategies. If Apple can keep a lead on integrating AR into its software, that would also give users a reason to keep on preferring the iPhone over cheaper smartphones. This will be particularly helpful in China, where local brands such as Vivo^② and OPPO^③ have taken share—last summer OPPO's R9 phone, which costs just \$400, overtook the iPhone in the country.

⑫ Other revenue streams are tied in part to the iPhone's success. One area of strong growth—if the base of iPhone users continues to expand—will be Apple's services business, which includes revenue from app sales, cloud storage, insurance of Apple devices and more. Services are already Apple's second-largest business, having overtaken personal computers in 2016.

Spec for smart specs

⑬ Another promising new business is smart glasses, which Apple has begun referencing in its **patent** applications. These will overlay digital information onto the real world without the need to look down at a screen. Work that Apple has done in developing AirPods, the Apple Watch and ARKit, such as waterproofing and **elongating** battery life, are the building blocks for smart glasses,

① Amazon Prime is a paid subscription service offered by Amazon.com that gives users access to free one-day delivery, streaming video/music and other benefits for a monthly or yearly fee. As of April 2017, Prime has more than 80 million paying users.

② Vivo is a Chinese technology company that designs, develops, and manufactures smartphones, smartphone accessories, software, and online services. It was founded in 2009 in Dongguan, Guangdong, China.

③ OPPO Electronics Corp. (commonly referred to as OPPO) is a Chinese consumer electronics firm based in Guangdong. OPPO is known for its camera phone brand, mainly targeting for young people.

says Benedict Evans of Andreessen Horowitz^①, a venture-capital firm. Many reckon that glasses may render phones useless, but for a long while, glasses will only work with the help of the computing power of a nearby smartphone.

② Yet it may be another question entirely—its use of data—that matters most to Apple's next decade. Apple has made a point of distinguishing itself from firms like Alphabet^②, Google^③'s parent company, which mine user data to target ads online. It has made a great effort to make ad blockers easy for users to install, for example. But data are increasingly central to designing the smartest software; Apple already risks lagging behind in areas such as voice recognition and predictive software if it remains inflexible about hoovering up consumers' information. Whether to **prioritise** privacy ahead of innovation may turn out to be Mr Cook's most important decision yet.

(1186 words)

Vocabulary & Notes

1. blockbuster ['blɒkbʌstə] *n.* (informal) an unusually successful hit with widespread popularity and huge sales (especially a movie or play or recording or novel) 一鸣惊人的事物; 非常成功的书或电影
2. slick [slik] *adj.* (sometimes disapproving) done or made in a way that is clever and efficient but often does not seem to be sincere or lacks important ideas 华而不实的; 虚有其表的; 取巧的
3. wireless ['waɪəlɪs] *adj.* not using wires 无线的
4. wearable ['weərəbəl] *adj.* pleasant and comfortable to wear; suitable to be worn 可穿戴的; 适于穿戴的
5. transformative [trænz'fɔ:mətɪv] *adj.* 有改革能力的
6. innovation [ɪnə'veɪʃn] *n.* a new thing or a new method of doing something. 新事物; 新方法
7. notch [nɒtʃ] *v.* (informal) ~ sth. up, to achieve sth. such as a win or a high score 赢取; 获得
8. relentless [rɪ'lentlɪs] *adj.* not stopping or getting less strong 不停的; 持续强烈的; 不减弱的
9. ownership ['ɒnəʃɪp] *n-uncount.* the fact of owning sth. 所有权; 产权; 物主身份
10. portal ['pɔ:t(ə)l] *n.* a website that is used as a point of entry to the internet, where information has been collected that will be useful to a person interested in particular kinds of things (互联网上的) 门户网站; 入口站点

① Andreessen Horowitz is a private American venture capital firm, founded in 2009 by Marc Andreessen and Ben Horowitz. The company is headquartered in Menlo Park, California, United States. 风投公司安德森-霍洛维茨

② Alphabet Inc. is an American multinational conglomerate created in a corporate restructuring on October 2, 2015. It is the parent company of Google and several former Google subsidiaries. Alphabet Inc 是美国谷歌公司于 2015 年 10 月 2 日重组更名而成的公司, 原先的谷歌将成为 Alphabet 的子公司。

③ Google is an American multinational technology company specializing in Internet-related services and products. These include online advertising technologies, search, cloud computing, and software. Most of its profits are derived from AdWords, an online advertising service that places advertising near the list of search results.

11. disruptive [dis'ʌptɪv] *adj.* causing problems, noise, etc. so that sth. can not continue normally 扰乱性的; 破坏性的
12. scepticism ['skeptɪsɪz(ə)m] *n.* an attitude of doubting that particular claims or statements are true or that something will happen 怀疑态度; 怀疑论
13. autonomous [ɔ:'tɒnəməs] *adj.* (formal) having the ability to work and make decisions by yourself without any help from anyone else 有自主能力的, 自主的
14. stance [stɑ:ns;stæns] *n-count.* Your stance on a particular matter is your attitude to it. (对某事的) 态度; 立场
15. assiduously [ə'sɪdʒuəsli] *adv.* (formal) working very hard and taking great care that everything is done as well as it can be 刻苦地; 勤勉地; 兢兢业业地
16. insular ['ɪnsjʊlə] *adj.* (disapproving) interested in your own group, country, way of life etc. and no others—used to show disapproval 思想狭隘的; 保守的
17. upgrade [ʌp'greɪd] *v.* to make a computer, machine, or piece of software better and able to do more things 使(计算机、机器、软件)升级
18. revenue ['revənju:] *n.* money that a business or organization receives over a period of time, especially from selling goods or services (公司、机构的) 收益, 收入
19. patent ['pæt(ə)nt;'peɪt(ə)nt] *n.* an official right to be the only person or company allowed to make or sell a new product for a certain period of time. 专利; *adj.* connecting with a patent 有专利的; 受专利保护的
20. elongate ['i:lŋgeɪt] *v.* to become longer; to make sth. longer (使) 拉长; (使) 延长
21. prioritise [praɪ'ɔrə,təɪz] *v.* to put tasks, problems ,etc. in order of importance, so that you can deal with the most important first 按重要性排列; 划分优先顺序; *v.* (formal) to treat sth. as being more important than other things 优先处理

Post-reading Tasks

Task 5 Fill in the blanks with the main ideas.

Apple's hit devices in history	A. _____ B. _____ C. _____
Questions pursue the company	A. _____ B. _____
Faced with the plight	A. External factors: _____ B. Internal factors: _____ _____
Edges of Apple	A. _____ B. _____ C. _____ D. _____ E. _____



Task 6 The following statements are incomplete. Search the missing information in the passage and fill in the blanks.

1. APPLE has a new hit device, so _____ that it has sold out across most of America and Britain.
2. Useful and (of course) slickly designed, it enjoys the _____ of any Apple product in history.
3. But headphones are hardly the transformative, _____ that many have been waiting for.
4. The relentless rise of _____ is slowing, with around two-fifths of the global population now owning one.
5. There is also justified scepticism about another possible avenue for growth: personal transportation, an industry that _____.
6. Apple could surely design a sleek car, but the big shift is away from ownership toward _____.
7. Many people believe that Apple could expand in health care, on which people spend _____.
8. Yet Apple will have every chance to adapt because of _____.



Task 7 Give the correct form of the word according to the indication in the brackets. Then complete the sentences by using the right form of each word. Use each word once.

wear -----(suffix)	transform-----(suffix)
innovation-----(adj.)	veil-----(antonym)
revenue-----(antonym)	grade-----(prefix)
overlay-----(noun)	priority-----(verb)

1. The CBO (Congressional Budget Office) calculates that the deficit could rise to 23% of GDP in the next 40 years if it fails to tackle the yawning imbalance between revenue and _____.
2. As many as 67 percent of Chinese consumers are likely to buy _____ fitness monitors and 73 percent wants smart watches in the coming five years, more than doubled 32 percent and 27 percent in the United States.
3. China had planned to _____ its nuclear submarines at an international fleet review marking the 60th anniversary of its navy, official media reported yesterday.
4. Youngsters were asked to _____ subjects on a list including family, job, music and friends.
5. Things like _____, mobile video ads, custom creatives that take over your screen for a second.

6. Over the past five years, our company has pioneered an _____ technology solution aimed at making electric cars more affordable and more convenient than gasoline cars.

7. Engineers and operations staff investigated the failure, which was later diagnosed as a fault with a _____.

8. Mobile technology can _____ professors' teaching tool-kit.



Task 8 There is a passage with ten blanks. Choose one word for each blank from the word bank. You may not use any of the words in the bank more than once.

Cars will increasingly become an extension of the mobile phone, enabling permanent, safe connection. Promoting sustainable mobility and 1 driver needs are two future challenges. Carsharing and shared use fleets are models of collaborative economy that will become 2 in the field of mobility.

Complete connectivity: Nowadays we are 3 connected to our mobile phone. The trend is to develop new 4 so that users do not lose this connection when they are driving. In the future, the vehicle itself will be connected, allowing us to improve the customer experience and offer new functions and services. For example, they will enable drivers to 5 email and social media and continue driving in complete safety.

Protect the safety of the driver: There will be more specific apps to be used inside the car in a safe manner. For example, calls can already be made without handling the phone by simply 6 a finger over the screen.

Sustainable mobility: Can you imagine never arriving late for work because your car will guide you there in time? In the future, vehicles will have predictive 7 that help the user efficiently choose the best 8 route to take based on, for example, traffic or weather conditions, which will lead to more sustainable mobility.

Parking: It is 9 that 25% of traffic in Europe's city centers is due to drivers who are looking for a place to park. A future trend are apps that detect free spaces, and they aim to reduce time and fuel spent on parking.

Collaborative economy: Promoting the exchange of goods is one of the keys to the future. The trend in mobility will be carsharing among several users, getting access with digital keys on their smartphone. 10 apps for this purpose will have increasingly greater impact.

- | | |
|-------------------|----------------|
| A) permanently | I) screens |
| B) artificial | J) assistants |
| C) technologies | K) Digital |
| D) mathematically | L) trends |
| E) swiping | M) complicated |
| F) estimated | N) access |
| G) anticipating | O) provide |
| H) commuting | |



Task 9 Identify the grammatical meanings of the underlined parts of the following sentences according to the context of the passage, and translate the sentences into Chinese.

1. The gadget in question is AirPods, a set of wireless headphones that look a lot like Apple's traditional ear buds, just without a wire.

2. Questions about the future of the iPhone and whether Apple will ever design another product to match it pursue the company.

3. Apple is also facing more competition, especially in China (its second most important market after North America) where sales have been declining, lending weight to fears that Apple is experiencing "peak iPhone".

4. One disappointment has been television, worth some \$260bn globally. ItsTV offering is a cable box that is little more than a portal to content from other firms, such as Netflix, not the disruptive offering that Apple executives promised.

5. But dealing with a complex web of companies and reams of red tape, as any foray into health care would require, would again be a big departure from what it is used to.

Passage B

Text

Network Security

By Unnamed Author

*Network **Security** systems are one of the key players in contemporary business life. Some networks are private while others are open to public access. The obvious example of a public network is the Internet. Conversely, most big companies today prefer private networking accessed locally by limited number of people. Rapidly growing networks became even **portable** and dynamic and now may be accessed from homes or hotel rooms while on the road through normal telephone lines.*

No matter whether your network is private or public it should have robust security and be safely protected. In this article we will discuss where network security starts and will describe common measures taken for its safety.

Why to secure?

❶ This question might always come to your mind especially when you deal with public networks. For example, you may state that not Internet but you as a user should secure yourself from it on client side (personal PC with **antivirus** or spyware) not to grab a Trojan or **malware** threat into your system. And of course, you seem to be right from user's point of view. The problem of network security becomes a more serious issue when you deploy a private network system which targets and serves particular group of people to communicate, collaborate and share.

Planning Security

❷ Network Security is a process which involves all activities, provisions and policies that organizations and system administrators undertake to protect the integrity and continuity of operations, communications, data and their values in their network. A . Planning and **elaboration** of such strategy is the preparatory part which guarantees a stable and targeted safety for your network. It assumes monitoring of the system, identification of threats and their solutions.

a. Identification of Threats

❸ To heal the patient you should first know his disease and its source. Though providing network security is a complicated task but it may be ensured in this quite simple logic. Revealing threats is one of the key points in planning.

Threats to networks may be of different essence.

Viruses and Infections

❹ Viruses occur in programs developed by **fraudulent** programmers and are designed to replicate themselves and infect systems when triggered by a specific event or service.

Trojan Horse

❺ Software containing Trojans are a malware. Trojans seem to be harmless and even useful but instead they facilitate **unauthorized** access to the system and change **system configuration** or infect it. Examples of such applications may be games, converters, browser toolbars, desktop gadgets, widgets etc. B .

Vandal Applications or Applets

❻ Vandals are software applications or applets that cause destruction to networks and systems. Unlike Trojan horse programs vandals exceptionally aim at crashing or destructing the system to the "pieces" without accessing or manipulating any data.

Attacks

❼ Network Systems are attacked for different purposes:

- Reconnaissance** attacks aim at information-gathering and data collecting to compromise networks.
- Access attacks exploit network vulnerabilities to gain entry to e-mail, databases and to manipulate the data.