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УО «Полесский государственный университет»

**М.В. ТАТАРЕВИЧ
В.В. ШИРЯЕВ**

**BUSINESS ENGLISH
PART II**

**ДЕЛОВОЙ ИНОСТРАННЫЙ ЯЗЫК
(АНГЛИЙСКИЙ)
ЧАСТЬ II**

Учебный практикум для студентов специальности
«Информационные системы и технологии»
дневной формы обучения

Пинск
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Р е ц е н з е н т ы:

кандидат филологических наук,
зав. кафедрой иностранных языков

УО «Полесский государственный университет»

Ю.Н. Русина;

кандидат филологических наук,
доцент кафедры иноязычного речевого общения

УО «Минский государственный лингвистический университет»

С.Е. Борзенец

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Учебный практикум направлен на развитие навыков устной речи по темам «Internet», «Websites», «Computer Information System», «E-business», «Computer Programming», «Computer Software», «Technical Support», «Data Security», «Computer and Health» and «The Future of IT».

Издание предназначено для студентов специальности «Информационные системы и технологии» дневной и заочной формы обучения.

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ВВЕДЕНИЕ

Цель данного практикума – помочь обучающимся совершенствовать навыки чтения и устной речи, а также расширить словарный запас по заданным темам.

Пособие направлено на формирование коммуникативных умений и навыков. Оно состоит из десяти тематических разделов, каждый из которых соответствует определенной теме.

Каждый раздел включает в себя учебные тексты, раскрывающие основные теоретические вопросы по теме, подлежащие усвоению. Для активизации и усвоения изученного материала представлены разнообразные лексические и речевые упражнения, а также творческие задания, направленные на развитие навыков устной речи.

Все изучаемые темы соответствуют учебной программе по английскому языку для студентов специальности «Информационные системы и технологии».

Большинство заданий имеют коммуникативную направленность.

UNIT 1

INTERNET

Topical Vocabulary

obsolete – устаревший;

quantum mechanics – квантовая механика;

instantaneous – мгновенный;

dial-up service – удаленный доступ к сети;

query – запрос;

ISP (Internet service provider) – провайдер, поставщик услуг интернета;

ADSL (Asymmetric Digital Subscribed Line) – асимметрическая цифровая абонентская линия;

browsing – просмотр;

pay-as-you-go – предоплата;

Web-based mail – веб-почта;

POP3 (Post Office Protocol) – почтовый интернет-протокол;

offline – выключенный, автономный;

junk mail filtering – обработка почтового мусора;

Exercise 1

Match each of the Internet services in Column A with the uses in column B.

Column A

1. IRC;
2. MOOs;
3. Email;
4. FTP;
5. WWW;
6. Telnet;
7. Usenet.

Column B

- a. Logging on to your computer at a distance;
- b. Sending and receiving messages;

- c. Downloading a file from a server;
- d. Chatting to other users in real-time;
- e. Accessing newsgroups;
- f. Browsing webpages;
- g. Taking part in simulations in shared environment.

Internet

The Internet is a huge network of computers spanning this planet and is now started to bring in the surrounding area like space. Some computers like servers share data, others just surf the web as clients downloading the data. Public Internet began in the late 70's. In the 70's web users used an interface called telnet, but now that program is mainly obsolete. Telnet was most widely used in accessing college email accounts.

The Internet is very helpful, because it's a huge database of knowledge, from the pictures of family trips to an analysis of quantum mechanics. Everyone should have the Internet because of its near instantaneous communication and huge wealth of knowledge. But how to go on the Internet and do a search for information we need? There are two ways to do it.

The first is when you know an Internet address of data you need and the second one is when you try to find information you need by using a search program. In the beginning we have to enter any browser you like. It could be an Internet Explorer, Netscape Navigator or Opera, etc. If we have a broadband connection, we connect to the Internet at once. If not, we have to set up and connect to our dial-up service. Finally, if we want to find some information in the Internet, we are to type an address of this data in the browser we use or simply use the existing search-programs such as the google search program, rambler search program, yandex search program or yahoo search program.

They are very simple and popular networks of sites. In these programs we can just type the word or name of thing, we would like to find and then press enter. A search program solves this problem. We get our results in the same window. After we get our results, we simply choose whatever site best matches our query or keep searching.

Besides data, one can get from the Internet, we can also send and receive e-mail or electronic mail. This Internet service is cheaper than ordinary mail and much quicker. It is becoming popular day by day. We can get some news from the Internet, because there are many informational servers in the web.

Choosing an ISP

Using an ISP requires no new technology – all you need is a computer, a modem, a telephone line (preferably broadband), and the appropriate software (which is available free of charge when you sign up with the service).

Most of the services are very similar, but it is still worth looking around for a service that offers at least the following features:

High speed

Connection can be provided by standard dial-up using an ordinary modem or by using a broadband connection. Standard dial-up is the slowest at 56 Kbps. Broadband such as ADSL (Asymmetric Digital Subscriber Line) provides different speeds for uploading (sending data) and downloading (receiving data) ranging from 256 Kbps to 2 Mbps.

High Usage Allowance

The amount of data that you are allowed to upload or download in a given time period may be limited. Sending email, browsing the Web or downloading images does not require high usage allowances, downloading MP3 music files requires more. Online gaming and viewing video online will require a high usage allowance. Usage allowance is normally quoted as GB per month.

Good Value Packages

Various packages are available offering different options that can be paid monthly, annually, biannually etc. With these packages, after paying the initial fee, Internet access is usually unmetered. You can also opt for pay-as-you-go packages. Look for a package where the initial rate is reduced. You have to compare ISP offers carefully to find a package that provides what you want at the cheapest cost.

CD-ROM or Online sign up

Some ISPs require you to sign up for their service online (which means you already need to have an Internet connection and some experience with setting up a dial-up networking connection). If you are a complete beginner, you'll need an ISP which can provide its sign-up software on CD-ROM that will automatically configure your computer to access the Internet.

Local rate calls

Nearly all ISPs provide local call access numbers. Any ISP that uses a national rate number or charges an initial set up or administration fee should be avoided.

E-mail

Having several e-mail accounts is very useful – you can separate business and personal e-mail for example, or provide an address for each member of your family. Many ISPs also offer only Web-based mail which is great if you need to get into your computer on the move as you can access it from any computer with Internet access. POP3 e-mail, however, is faster and more efficient and can be downloaded to your PC to read offline – a combination of the two is ideal.

Junk mail filtering and virus checking

Spam (unsolicited e-mail) is very common. It fills up your storage space and is time consuming to deal with. It is also one of the main sources of viruses that attack your computer. Look for an ISP that provides good filtering services to remove junk mail and viruses before they reach your computer.

Free Web space

A decent amount of free Web space would be around 25–50Mb. This would be sufficient for most of your own personal websites developments. Also check to see if there are any restrictions on your use of web space, since some ISPs will not let you see the space for commercial purposes.

Reliable Service

Of course all the features in the world won't make a scrap of difference if the ISP is unreliable and you find it impossible to log on. Look out for recommendations from friends and shop around.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

сеть; пространство, космос; загружать; поисковая система; программное обеспечение; бесплатный; в месяц; полный новичок; нежелательное сообщение электронной почты.

Exercise 2

Answer the following questions:

1. What are the advantages and disadvantages of the Internet?
2. What are the functions of the Internet?
3. What is your aim of using the Internet?

DISCUSSION

Read the hints on choosing an ISP once again and decide which of the options available offer the best deal to these users. Be prepared to defend your choice.

1. A student looking for a cheap package;
2. A small business;
3. Someone who sends occasional emails.

UNIT 2

WEBSITES

Topical Vocabulary

target audience – целевая аудитория;
find out – выяснять, узнавать;
ongoing basis – постоянная основа;
spice up – оживить, привнести «изюминку»;
scrollbars – полосы прокрутки;
forego – предшествовать;
shun – беречься, избегать, остерегаться.

Types of Websites

The purpose of an organizational website is to inform about an idea or event. Companies develop commercial websites to sell products or services. Entertainment websites are designed to entertain or provide fun activities. People visit news websites to obtain information. The purpose of a personal website is to promote information about an individual. Social networking websites help people to exchange personal information. Educational websites' aim is to share knowledge and enable online learning.

The Steps in Websites Development

First, discuss with the customer their requirements and the target audience. Find out what features and number of pages they want on their site. Secondly, analyse the information from the customer. Thirdly, create a website specification. Then design and develop the website. After that, assign a specialist to write the website content. Next, give the project to programmers for HTML coding. Finally, test the website.

After you publish the website, update and maintain it on an ongoing basis. Monitor consumer use.

While creating your website, follow some range of advice:

Trust Text

It's tempting to spice up pages with graphics – but sometimes even a little is too much. If possible your navigation system

should be based on text links, rather than image maps or graphical buttons. Studies have shown that visitors will look at and try text links before clicking on graphical buttons.

Best ALTERNative

If you must use a graphical navigation system, include descriptive ALT text caption. The ALT text will make it possible for visitors who use text browsers such as Lynx or who browse with graphics turned off to find their way around. In addition to the graphical navigation buttons, be sure to include text links at the bottom of every page that provide a clear route to the main areas of your site.

Map it

A site map offers a good overview of your site and will provide additional orientation for visitors. It should be in outline form and include all the major sections. It's a good idea to visit a few larger sites to get some ideas on designing an effective site map.

Forego Frames

Avoid frames wherever possible. Most veteran browsers dislike them and they can be confusing for visitors who are suddenly presented with multiple scrollbars. If you're committed to using frames on your site; you'd better commit yourself to some extra work too, because you'll have to create a no-frames version of your site for visitors whose browsers don't support frames.

Consistency Counts

Don't change the location of your navigation elements, or the color of visited and not-visited links from page to page. And don't get clever with links and buttons that appear and disappear: turning things on and off is usually done as an attempt to let visitors know where they are at a site but more often than not it ends up confusing them.

Just a Click Away

Keep content close at hand. Every page on your site should be accessible from every other one within four clicks. You should regularly reexamine your page structure and links, and make

necessary adjustments. People come to your site to find information – don't make them dig for it.

Shun Search

Most sites have search function, but try to discourage its use as much as possible. Even the best search engines turn up irrelevant matches, and visitors may not know how to use yours effectively. Logical, clearly placed links are more likely to help visitors find what they want.

Passing Lanes

Provide multiple paths through your site so visitors aren't restricted to one style of browsing. For most sites, a pull-down navigation menu is an easy addition that offers an alternative route through your pages, without wasting space.

Overwhelming Options

Don't overwhelm visitors by presenting dozens of places that they can go. A large number of choices is not necessarily a good thing.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

организационный сайт, коммерческий сайт, сайт развлечений, сайт новостей, личный сайт, социальный сайт, образовательный сайт, система навигации.

Exercise 2

Answer the questions:

1. Why do people visit organizational websites?
2. Why do people visit company websites?
3. Why do people visit entertainment websites?
4. Why do people visit news websites?
5. Which websites do you use in your study?

Exercise 3

Go around the class and ask five students to name the websites they visit and use at home. Write down a website for each of the four headings 1–4 in the table. Present the information to the group. Which are the most popular websites for each heading?

Interviewee name	Interviewee uses these websites to:			
	1. entertain	2. get news	3. research / study	4. shop
a)				
b)				
c)				
d)				
e)				

DISCUSSIONS

You are the owner of a company that needs a new website. Make a list of things that you need/would like for your website. Answer the following questions.

1. What is the name of your company?
2. What is the business type?
3. What is the purpose of your website?

– Work in pairs. Student A is the website developer. Student B is the customer. Ask and answer questions about website requirements. Swap the roles.

Example:

A: What is the name of your company?

B: It's called/Its name is... .

UNIT 3

COMPUTER INFORMATION SYSTEM

Topical Vocabulary

accessory equipment – вспомогательные устройства;
engineering background – техническая подготовка, квалификация;
product line – серия (компьютерных) продуктов;
application programmer – прикладной программист;
simulate – моделировать;
hybrid computer – аналого-цифровой компьютер;
household appliances – бытовая техника;
indoor climate control system – система регуляции температуры в доме;
application software – прикладное программное обеспечение;
firmware – встроенное/микропроцессорное программное обеспечение;
visible units – видимый блок, устройство;
associated documentation – соответствующая документация;
payroll – платежная ведомость;
inventory control – переучет, инвентаризация;
read-only memory (ROM) – постоянное запоминающее устройство (ПЗУ).

Computer System Architecture

As we know all computer systems perform the functions of inputting, storing, processing, controlling, and outputting. Now we'll get acquainted with the computer system units that perform these functions. But to begin with let's examine computer systems from the perspective of the system designer, or architect.

It should be noted that computers and their accessory equipment are designed by a computer system architect, who usually has a strong engineering background. As contrasted with the analyst, who uses a computer to solve specific problems, the computer system architect usually designs computer that can be used for many different applications in many different business.

For example, the product lines of major computer manufacturers such as IBM, Digital Equipment Corporation and many others are the result of the efforts of teams of computer system architects.

Unless you are studying engineering, you don't need to become a computer system architect. However, it is important that as a potential user, applications programmer or systems analyst you understand the functions of the major units of a computer system and how they work together.

Types of computers

The two basic types of computers are analog and digital. Analog computers simulate physical systems. They operate on the basis of an analogy to the process that is being studied. For example, a voltage may be used to represent other physical quantities such as speed, temperature, or pressure. The response of an analog computer is based upon the measurement of signals that vary continuously with time. Hence, analog computers are used in applications that require continuous measurement and control.

Digital computers, as contrasted with analog computers, deal with discrete rather than continuous quantities. They count rather than measure. They use numbers instead of analogous physical quantities to simulate on-going, or real-time processes. Because they are discrete events, commercial transactions are in a natural form for digital computation. This is one reason that digital computers are so widely used in business data processing.

Machines that combine both analog and digital capabilities are called hybrid computers. Many business, scientific, and industrial computer applications rely on the combination of analog and digital devices. The use of combination analog devices will continue to increase with the growth in applications of microprocessors and microcomputers. An example of this growth is the trend toward installing control systems in household appliances such as microwave ovens and sewing machines. In the future we will have complete indoor climate control systems and robots to do our housecleaning. Analog sensors will provide inputs to the control centres of these systems, which will be small

digital computers.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

функции ввода, хранения, обработки, управления и вывода информации; системные блоки; вспомогательные устройства; разработчик компьютерной системы; хорошая компьютерная подготовка; различные сферы применения; корпорация цифрового оборудования; моделировать физические величины; измерение сигналов; в режиме реального времени; коммерческие операции; цифровое вычисление.

Exercise 2

Answer the questions:

1. Who designs computers and their accessory equipment?
2. What is the role of an analyst?
3. Is it necessary for a user to become a computer system architect?
4. What functions do computer systems perform?
5. What types of computers do you know?
6. What is the principle of operation of analog computers?
7. How do digital computers differ from analog computers?
8. Where are digital and analog computers used?
9. What are hybrid computers?
10. Where do they find application?

Hardware, Software and Firmware

The units that are visible in any computer are the physical components of a data processing system, or hardware. Thus, the input, storage, processing and control devices are hardware. Not visible is the software – the set of computer programs, procedures, and associated documentation that make possible the effective operation of the computer system. Software programs are of two types: system software and application software.

System software is the program designed to control the operation of a computer system. It does not solve specific

problems. It is written to assist people in the use of the computer system by performing tasks, such as controlling all of the operations required, to move data into and out of a computer and all of the steps in executing an application program. The person who prepares system software is referred to as a system programmer. System programmers are highly trained specialists and important members of the architectural team.

Application software is the program written to solve specific problems (applications), such as payroll, inventory control, and investment analysis. The word program usually refers to an application program, and the word programmer is usually a person who prepares application software.

Often programs, particularly system software, are stored in an area of memory not used for application software. These protected programs are stored in an area of memory called read-only memory (ROM), which can be read from but not written on.

Firmware is a term that is commonly used to describe certain programs that are stored in ROM. Firmware often refers to a sequence of instructions (software) that is substituted for hardware. For example, in an instance where cost is more important than performance, the computer system architect might decide not to use special electronic circuits (hardware) to multiply two numbers, but instead write instructions (software) to cause the machine to accomplish the same function by repeated use of circuits already designed to perform addition.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

видимые устройства; система обработки данных; аппаратное обеспечение; набор компьютерных программ; соответствующая документация; системное программное обеспечение; прикладное программное обеспечение; системный программист; платежная ведомость; переучет; анализ инвестиций; прикладная программа; работающий только в режиме чтения; постоянное запоминающее

устройство; последовательность команд;
производительность; электронная цепь; умножать числа.

Exercise 2

Answer the questions:

1. What is hardware?
2. Give the definition of software.
3. What are the types of software?
4. What is system software?
5. What kind of tasks does system software perform?
6. Who prepares system software?
7. What is application software?
8. What problems does application software solve?
9. What is firmware?
10. How can a computer system architect use firmware?

Steps in the Developing of Computers

In 1948 due to the invention of transistors there appeared the possibility to replace vacuum tubes. The transistor occupied an important place on the way to computer development. The potential advantage of the transistor over the vacuum tube was almost as great as that of the vacuum tube over the relay. A transistor can switch flows of electricity as fast as the vacuum tubes used in computers, but the transistors use much less power than equivalent vacuum tubes, and are considerably smaller. Transistors are less expensive and more reliable. They were mechanically rugged, had practically unlimited life and could do some jobs better than electronic tubes. Transistors were made of crystalline solid material called semiconductor. With the transistor came the possibility of building computers with much greater complexity and speed.

The integrated circuit constituted another major step in the development of computer technology. Until 1959 the fundamental logical components of digital computers were the individual electrical switches, first in the form of relays, then vacuum tubes, then transistors. In the vacuum tubes and relay stages, additional discrete components, such as resistors, inductors, and capacitors

were required in order to make the whole system work. These components were generally each about the same size as packaged transistors. Integrated circuit technology permitted the elimination of some of these components and integration of most of the others on the same chip of semiconductor that contains the transistor. Thus the basic logic element – the switch, or 'flip-flop', which required two separate transistors and some resistors and capacitors in the early 1950s, could be packaged into a single small unit in 1960. The chip was an important achievement in the accelerating step of computer technology.

In 1974 a company in New Mexico, called Micro Instrumentation Telemetry System (MITS) developed the Altair 8800, a personal computer (PC) in a kit. The Altair had no keyboard, but a panel of switches with which to enter the information. Its capacity was less than one per cent that of the 1991 Hewlett-Packard handheld computer. But the Altair led to a revolution in computer electronics that continues today. Hardware manufacturers soon introduced personal computers, and software manufacturers began developing software to allow the computers to process words, manipulate data, and draw. During the 1980s computers became progressively smaller, better and cheaper.

Today the personal computer can serve as a work station for the individual. A wide range of computer functions are now accessible to people with no technical background.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

изобретение; электронная лампа; менее дорогой; более надежный; твердый материал; полупроводник; резистор; индуктор; конденсатор.

Exercise 2

Match the terms with the definitions:

Column A

1. Computer;

2. Analog computer;
3. Digital computer;
4. Hardware;
5. Software;
6. Program;
7. Programming;
8. Integrated circuit;
9. Chip;
10. Transistor.

Column B

- a. A combination of interconnected circuit elements produced in a chip to perform a definite function;
- b. A sequence of instructions enabling the computer to solve a given task;
- c. A tiny piece of silicon containing complex electronic circuits used inside all computers;
- d. A system which processes and stores great amount of data solving problems of numerical computation;
- e. A device which can carry out routine mental tasks by performing simple operations at high speed;
- f. Electronic and mechanical equipment in a computer system;
- g. A set of programs, procedures and associated documentation;
- h. The process of preparation a set of coded instructions for a computer;
- i. A device that has input and output represented in the form of physical quantities;
- j. A small piece of semiconductor that greatly reduced power consumption of a circuit.

UNIT 4

E-BUSINESS

Topical Vocabulary

application – применение;
transaction – сделка;
emergence – внезапное появление;
pay-pal – система безналичного расчёта за лоты, выигранные в интернет-аукционах;
registration – регистрация;
VAT (Value Added Tax) – налог на добавленную стоимость;
shipping cost – расходы на перевозку;
checkout – выписка счета;
credit rating – оценка кредитоспособности;
ubiquity – повсеместность;
global reach – мировой охват;
universal standards – всемирные стандарты;
richness – изобилие;
interactivity – интерактивность;
information density – интенсивность потока информации;
personalization – учет интересов пользователя;
customization – изготовление на заказ, удовлетворение требований.

E-business is the term to describe the information systems and applications that support and drive business processes, most often using the World Wide Web. E-business allows companies to link the internal and external processes more efficiently and effectively, and work more closely with suppliers and partners to better satisfy the needs and expectations of their customers. With E-business you can communicate across the country with customers, or simply using e-mail to broadcast product news and information.

E-commerce

The "E" in "e-commerce" stands for "electronic", thus phrasing E-commerce as "Electronic Commerce".

E-commerce is a transaction from one organisation or individual to another external party, in which value is added.

E-commerce is basically the processes that are put in to place to support a company's business activity on the web or via other electronic means. The emergence of E-commerce as a way of customers purchasing has persuaded many companies to create an E-commerce web site and virtual shops or malls. E-commerce consists of buying, marketing, selling and delivering services or goods by means of electronic transactions and activities.

A business that's using an E-commerce website will have a basket that lets you send products to it, so you can later buy the product online. So if you create an E-commerce website it will save you valuable time and would bring you more customers. Also it will be able to access 24 hours a day, 365 days a year. While using an E-commerce website you will radically reduce the amount of paperwork. Using E-commerce you can pay by using pay-pal, pay-pal allows you to buy products online and if necessary you can return the product you bought.

Functions

Typical functions of an E-commerce system include registration, basket, payment, product management, orders management, VAT and shipping costs.

Registration

In order to make a purchase, users must register with the site, providing all the information needed for shipping and billing. The data will be stored on a database and will be available from the back office.

Alberto Salsini

Informazioni base

Nome: Cognome:

Login: Password:

Email: Abilitato:

Unica: Data di ultimo login: 14/12/2018 11:58

Fai una nuova password

Gruppi associati

Tipologia: TipiPagamenti

Aziende: Utenti base

Sottoscrizioni newsletter

newsletter

Selez.	ID	nome	Cognome	(Mail)	Dettaglio
<input checked="" type="checkbox"/>	19	aldo	saccomanno		Nome: <input type="text" value="aldo"/>
<input checked="" type="checkbox"/>	11	Andrea	Colombo		Cognome: <input type="text" value="Rossi"/>
<input checked="" type="checkbox"/>	12	Colabella	Daniela		Email: <input type="text" value="aldo.rossi@alice-com"/>
<input checked="" type="checkbox"/>	3	daniela	colabella		Password: <input type="text" value="rosirosse"/>
<input checked="" type="checkbox"/>	8	Daniela	Colabella		Indirizzo: <input type="text" value="via del campo"/>
<input checked="" type="checkbox"/>	9	elena	cacciamani		Città: <input type="text" value="Bordighera"/> cap: <input type="text" value="01234"/>
<input checked="" type="checkbox"/>	20	fabio	masari		Telefono: <input type="text"/>
<input checked="" type="checkbox"/>	18	gianluca	Giuntella		Cellulare: <input type="text"/>
<input checked="" type="checkbox"/>	4	gianni	manfredini		Nazione: <input type="text" value="Italy"/>
<input checked="" type="checkbox"/>	21	Ketti	Cenci		Tot. Fatt. OffLine: <input type="text" value="€ 0,00"/>
					Tot. Fatt. OnLine: <input type="text" value="€ 0,00"/>
					Totalissimo: <input type="text" value="€ 0,00"/>

1 2

Fatturazione

Ragione Sociale:

Partita Iva:

Codice Fiscale:

Destinatario

Nome:

Cognome:

Indirizzo:

Città: cap:

Nazione:

Telefono:

Status: Modifica.

Basket

The basket is a tool that, like a shopping basket, allows users to select the products they want and then go to the checkout for payment.

STEP 1
STEP 2
STEP 3
STEP 4

QUANTITÀ	ARTICOLO	TAGLIA	COLORE	PREZZO DI LISTINO	SCONTO	TOTALE	
1	Elegante gonna a balze con rouches CODICE 08H8MFAJ152 095	36	Blu	1.500,00 €	0,00 €	1.500,00 €	Rimuovi

SUBTOTALE 1.500,00 €

SPEDIZIONE 12,00 €

TOTALE 1.512,00 €

Payment

The payment system is a mechanism that facilitates dialogue between the parties involved in financial transactions: the bank, the store and you with your credit card.

After filling in the order, the customer enters his/her credit card number that travels along a channel solely accessible to the bank. The bank checks the customer's account and decides whether or not to authorise the payment.

The image shows a payment form with the following elements:

- Order number: n° ordine 133520764
- Amount: Importo 75,10 Valuta Eur
- Disclaimer: Tutti i campi con asterisco* sono obbligatori - CVV2/CVC2/4DBC obbligatorio per Visa, Mastercard, Amex, Diners
- Payment method selection: Strumento di pagamento: VISA, Mastercard, Maestro, American Express, Aura
- Card details: Numero* (dropdown: carta di credito), Scadenza* (mm, aa), CVV2/CVC2/4DBC* (cv2)
- Customer name: Nome* (nome), Cognome* (cognome)
- Privacy policy: INFORMATIVA D. LGS. NR. 196/2003 SULLA TUTELA DEI DATI PERSONALI. Ai sensi della vigente normativa in materia di protezione. (accepto / non accetto)
- Buttons: Torna all'Esercente, CONFERMA
- Logos: VERIFIED by VISA, MasterCard SecureCode, Si Servizi, SANPAOLO, BANKPASS web

Product management

This is the main part of the e-commerce system and provides all the features required for product placement, order fulfilment, etc, key to the management of online sales.

Product management makes it possible to define a product via a set of standard fields:

- product code
- category
- subcategory

- product name
- description
- image, zoom
- sizes available
- price in euros
- 'pieces' in stock

The products can be searched by category and subcategory.

Order management

Order management is the card that summarises all the delivery and order information to enable correct delivery. It includes:

- list of products purchased
- user information
- details of place of delivery
- delivery time information
- payment information

Managing the order means crossing the information on the registration database, the data in the basket, the delivery information and verification data relating to the payment credit rating.

All this information is summarised in a form identified by a number or reference code (order number).

== CODICE PRODOTTO ==

6720TB 0014

Nome:

Giacca

Descrizione:

Elegante giacca 3/4 con b

Stilista:

Azzedine Alaia

Prezzo di listino:

1575.00

Visibile



== SALVA ==

Definizioni nelle varie lingue

Lingua	Nome	Descrizione
Italiano	Giacca	Elegante giacca 3/4 con bottoni e pailettes
English	Jacket	Elegant jacket with metal
English		


Categorie

Lingua	Categoria	Visibile in
it-IT	Abbigliamento	/abbigliamento
it-IT	Giacche	/abbigliamento/giacche
		/abbigliamento

Disponibilità taglie, colori e magazzino

Taglia	Colore	Disponibilità Magazzino
40	Grigio	0
36	Ros	50
36	Bianco	

Gallerie immagini

Colore	Posizione	Immagine
Grigio	Preview 0	
Bianco	Tipo: Preview Ordine:	

Promozioni

Codice/Descrizione	Periodo	% applicata
Aggiungi promozione		
Codice:		
Nome/descrizione:		
Valida dal:		
al:		
% di sconto applicata:		

Prodotti correlati

Prodotto
OBHIMFA1152 095 Gonna

VAT and shipping costs

In addition to the cost of products purchased, the system manages the VAT and the shipping charges.

The E-commerce module is able to manage VAT rates in countries within and outside the EU.

Shipping costs both fixed and variable based on the weight and volume of the shipment.

Types of E-commerce

The enormous access to the Internet has made selling online an attractive strategy for small business owners. In fact, many businesses sell their products only online instead of getting a physical location. The four most common types of E-commerce are:

Business to Business (B2B)

B2B involves carrying out transactions over the Internet between companies.

Business to Consumer (B2C)

B2C is the most common form of E-commerce, and involves online transactions where retailers and service providers sell goods to consumers, and customers make their purchases direct from the company.

Consumer to Business (C2B)

C2B E-commerce transaction involves individuals acquiring bids from competing companies.

Consumer to Consumer (C2C)

C2C involves an evolution of the traditional mode of trade.

Features

There are 8 unique features of E-commerce that make it so successful:

Ubiquity, it is available everywhere at anytime. Online the stores never close.

Global Reach is a great feature of E-commerce. It takes the marketplace to marketpace. You can go "shopping" all around the world in one place.

Universal Standards are standards shared by the world. It gives us all the ability to connect at the same "level". There are lower entry costs and minimal search costs compared to

traditional commerce. Best Buy will let you go into the store and compare all appliance store prices so you don't have to "shop around". Many stores will also call all their other stores or get it from their site shipped to the store so you don't have to go anywhere. If Staples does have something you need in stock will actually order it for you and personally deliver it to your door.

Richness is the complexity and content of a message. The web and E-commerce has made it possible to deliver the same kind of "feeling" or message without the face to face interaction.

Interactivity allows online merchants to engage consumers in face-to-face like interactions without an actual face to face experience. E-commerce interactivity is much better because businesses can interact on a much larger scale. E-commerce can collect information from consumers more easily and efficiently with forms and surveys.

Information density offers consumers better quality information and more of it. Many companies like Best Buy offer price comparison and price matching, because e-commerce prices are more transparent so traditional business try to compete with e-commerce by making traditional shopping easier for consumers.

Personalization and Customization are tailoring messages and products to consumers based on their preferences. Websites like MSN let you customize your homepage to all the information you want and they also place advertising on your page based on your preferences. Customization is something really hard for traditional businesses to do because just like richness the more people it reaches the less customized it gets.

For making online business successful some key features are necessary they are:

consumer review, product comparison, live chat, product demo, show products on human model, share options.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

внутренний; внешний; виртуальный магазин; путем; финансовая сделка; размещение продукта; выполнение заказа; проверка данных; розничный торговец; провайдер.

Exercise 2

Answer the questions:

1. What are the advantages and disadvantages of shopping online?
2. What products or services do you usually buy online? What products do not you buy online? Why?

Exercise 3

Complete the dialogue with the words:

accounts bank completes confirmation customer
first gateway payment rejection web

Monika: Shayan, can you explain how a customer (1) _____ an online transaction?

Shayan: OK, it's very easy. (2) _____ the customer will place an order. The seller's (3) _____ server will confirm availability of the product and send a response. After that, the customer checks out and completes the (4) _____ instructions. Then the server will send a payment request to a payment (5) _____. The payment gateway will check the buyer's ability to pay with the (6) _____. OK?

Monika: Fine. Go on.

Shayan: The bank will respond and send payment acceptance or (7) _____ to the seller's web server through the payment gateway. Finally, the customer will receive the server response with the order (8) _____ or rejection.

Monika: Will the (9) _____ have to register?

Shayan: Yes, all buyers must have their (10) _____ before they complete the transaction.

Monika: Thank you. Now I understand.

DISCUSSION

– Work in pairs. Use firstly, secondly, then, after that, finally to describe the steps in buying a product or service. Talk about something you have bought, like a DVD or an airline ticket.

– Work in small groups. Talk about an E-commerce website you know and like. Say what is good about it.

UNIT 5

COMPUTER PROGRAMMING

Topical Vocabulary

equation – уравнение, приравнивание;
list of instructions – перечень команд;
guard – защищать, завершать, заканчивать;
appropriate sequance – необходимая последовательность;
program logic – логическая последовательность выполнения программ;
flowcharting – построение блок-схемы;
pictorial representation – наглядное представление;
predefined symbols – заранее заданные символы;
specifics – специальные черты, характерные особенности;
emplate – шаблон, образец, эталон;
pseudocode – псевдокод, псевдопрограмма;
burden – издержки, затраты;
top-down approach – принцип нисходящей разработки;
looping logic – логическая схема выполнения (операций) в цикле;
perform – выполнять, производить (действие); осуществлять;
unit of data – единица информации;
keyboard terminals – терминал (вывод) с клавишным управлением;
proliferation – размножение, быстрое увеличение;
convey – передавать, сообщать;
machine-oriented language – машинно-ориентированный язык;
business-oriented language – язык для экономических задач;
problem-oriented language – проблемно-ориентированный язык;
string of binary – строка двоичного представления;
data handling – обработка данных;
field-name length – длина имени поля;
incorporate features – включать свойства;
versatile – многофункциональный.

Programming is the process of preparing a set of coded instructions which enables the computer to solve specific problems or to perform specific functions. The essence of computer programming is the encoding of the program for the computer by means of algorithms. The thing is that any problem is expressed in mathematical terms, it contains formulae, equations and calculations. But the computer cannot manipulate formulae, equations and calculations. Any problem must be specially processed for the computer to understand it, that is – coded or programmed.

The phase in which the system's computer programs are written is called the development phase. The programs are lists of instructions that will be followed by the control unit of the central processing unit (CPU). The instructions of the program must be complete and in the appropriate sequence, or else the wrong answers will result. To guard against these errors in logic and to document the program's logical approach, logic plans should be developed.

There are two common techniques for planning the logic of a program. The first technique is flowcharting. A flowchart is a plan in the form of a graphic or pictorial representation that uses predefined symbols to illustrate the program logic. It is, therefore, a "picture" of the logical steps to be performed by the computer. Each of the predefined symbols shapes stands for a general operation. The symbol shape communicates the nature of the general operation, and the specifics are written within the symbol. A plastic or metal guide called a template is used to make drawing the symbols easier.

The second technique for planning program logic is called pseudocode. Pseudocode is an imitation of actual program instructions. It allows a program-like structure without the burden of programming rules to follow. Pseudocode is less time-consuming for the professional programmer than is flowcharting. It also emphasizes a top-down approach to program structure.

Pseudocode has three basic structures: sequence, decision, and looping logic. With these three structures, any required logic can be expressed.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

совокупность закодированных команд; суть компьютерного программирования; кодирование посредством алгоритма; формулы, уравнения, вычисления; обработать особым образом; перечень команд; необходимая последовательность; защищать от ошибок; составлять план логической последовательности; общепринятая методика; логическая последовательность выполнения программы; построение блок-схемы; наглядное представление; заранее заданные символы; шаблон; псевдопрограмма; без издержек; выделять принцип нисходящей обработки; расходовать меньше времени; логическая схема выполнения операций в цикле; необходимая последовательность операций.

Exercise 2

Answer the questions:

1. What is programming?
2. What is the essence of programming?
3. What should be done with the problem before processing by the computer?
4. What is a program?
5. What are instructions?
6. What are the main techniques for planning the program logic?
7. What is a flowchart?
8. What is a template and what is it used for?
9. What do you understand by "pseudocode"?
10. What are the basic structures of pseudocode?

Programming Languages

Let's assume that we have studied the problem, designed a logical plan (our flowchart or pseudocode), and are now ready to write the program instructions. The process of writing program instructions is called coding. The instructions will be written on a

form called a coding form. The instructions we write will be recorded in a machine-readable form using a keypunch, key-to-tape, or key-to-disk, or entered directly into computer memory through a terminal keyboard.

The computer cannot understand instructions written in just any old way. The instructions must be written according to a set of rules. These rules are the foundation of a programming language. A programming language must convey the logical steps of the program plan in such a way that the control unit of the CPU can interpret and follow the instructions. Programming languages have improved throughout the years, just as computer hardware has improved. They have progressed from machine-oriented languages that use strings of binary 1s and 0s to problem-oriented languages that use common mathematical and/or English terms.

There are over 200 problem-oriented languages. The most common of them are COBOL, FORTRAN, PL/I, RPG, BA-SIC, PASCAL.

COBOL

COBOL was the most widely used business-oriented programming language. Its name is an acronym for Common business-oriented language. COBOL was designed to solve problems that are oriented toward data handling and input-output operations. Of course, COBOL can perform arithmetic operations as well, but its greatest flexibility is in data handling. COBOL also was designed as a self-documenting language. Self-documenting languages are those that do not require a great deal of explanation in order to be understood by someone reading the program instructions. The self-documenting aspect of COBOL is made possible by its sentencelike structure and the very generous maximum symbolic field-name length of 30 characters. With a field-name length of up to 30 characters, the name can clearly identify the field and its purpose.

FORTRAN IV

The FORTRAN IV language is oriented toward solving problems of a mathematical nature. The name FORTRAN comes from the combination of the words formula translation. The version of FORTRAN IV has been designed as algebra-based

programming language. Any formula or those mathematical relationships that can be expressed algebraically can easily be expressed as a FORTRAN instruction. FORTRAN is the most commonly used language for scientific applications.

PL/I

PL/I stands for programming language I. It was designed as a general-purpose language incorporating features similar to COBOL for data handling instructions and features similar to FORTRAN for mathematical instructions. PL/I is much more than a combination of the good features of both COBOL and FORTRAN, as it has many capabilities that are unique. Yet, although PL/I is one of the most versatile and the most powerful of the programming languages, it is not the most commonly used. COBOL and FORTRAN have been available for a longer period of time than PL/I, and many more users work with those languages.

RPG II

RPG II is a business-oriented language. The name stands for report program generator. RPG is considerably different from other programming languages. RPG is, in effect, a large prewritten program. The programmer simply indicates the options within the master program that are to be used and, through a set of indicators, when they are to be used.

RPG was originally referred to as a "quick-and-dirty" programming language. That is, it is quick for the programmer to write and relatively inefficient in its use of main storage and processing speed. The latest version of RPG, called RPG II, greatly improved the language and gave it additional capabilities. RPG has an advantage over COBOL in that it requires less training for a programmer to become proficient in it. For this reason, RPG is commonly used on many smaller computers and in small business.

BASIC

BASIC is the acronym for beginner's all-purpose symbolic instruction code. It was developed in Dartmouth College as an easy-to-learn programming language for students and inexperienced programmers. Its key design goal is simplicity.

BASIC has become a very popular language in systems where many users share the use of a computer through terminals and it has become a universal language for personal computers.

The language BASIC is mathematically oriented, that is, its typical use is to solve problems of a mathematical nature. Because BASIC programs are usually executed from a terminal or microcomputer where input is entered through a keyboard and printed output is relatively slow, problems of a business nature requiring large volumes of input-output data are usually not practical.

PASCAL

PASCAL was invented in 1970 by Professor Niklaus Wirth of Zurich, Switzerland. It was named after the mathematician Blaise Pascal, who invented one of the earliest practical calculators. PASCAL is a mathematically oriented programming language and, as such, is most commonly used in mathematics, engineering, and computer science departments of colleges and universities. This language is somewhat unusual in that it was designed to be a structured language. This means that the program must be written in logical modules which are in turn called by a main controlling module. Much of PASCAL's popularity is due to work done at the University of California at San Diego, where PASCAL has been implemented on several different computers including microcomputers.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

языки программирования; блок-схема; кодированная форма; вид; удобочитаемый для компьютера; в соответствии с набором правил; представить логические шаги программы; совершенствовать языки программирования; машинно-ориентированные языки; проблемно-ориентированные языки; обычный термин; язык для программирования экономических задач; обработка информации; операции по вводу-выводу данных; гибкость; идентифицировать поле и

его цели; решение проблем математического характера; сферы научного применения; универсальный язык; включать свойства; уникальные возможности; многофункциональный и самый мощный из языков программирования.

Exercise 2

Answer the questions:

1. What is the process of writing instructions called?
2. What is a code?
3. How must instructions be written?
4. What is the foundation of any programming language?
5. How was the development of programming languages progressing throughout the years?
6. What are the most common problem-oriented languages?
7. What is COBOL?
8. What functions was COBOL designed for?
9. What does FORTRAN serve for?
10. What capabilities has PL/I?

Running the Computer Program

The operating system is a collection of programs provided by the computer's manufacturer that allows us to schedule jobs for the computer, to translate source programs into object programs, to sort data stored on secondary storage devices, and to copy data from any input device to any output device. These programs are called control programs, language programs and utility programs.

The control program (often called the supervisor, monitor, or executive) is a main-storage-resident program. Its functions are to schedule jobs, schedule input and output for our programs, and to monitor the execution of our programs.

The language processors are programs that translate source programs into object programs. There are three types of language processors: assemblers, compilers, and interpreters. Each language has its own language processor.

The service programs are programs that are commonly used in all data processing centers. They have functions that are required by everyone using a computer. Examples of service

programs include linkage editors to prepare object programs for execution, a librarian to catalog programs into a library area on magnetic disc, utility programs to transfer data from device to device, and sort-merge programs for sorting data on magnetic tape or disk.

Testing the Computer Program

There are two kinds of errors or bugs with which programmers must deal. The first type is the coding error. Such errors are syntax errors that prevent the language processor from successfully translating the source program to object program code. The language processor identifies the nature and the location of the error on the source program listing, so these errors are relatively easy to find and correct. The second type of bug is the logic error. The computer program can be successfully translated, but the program does not produce the desired results. These errors are generally much more difficult to find and to correct than are coding errors. Logic errors can be avoided through careful planning of the program logic, but it is the programmer's responsibility to test thoroughly all of the program's functions, in order to verify that the program performs according to specifications.

There are many tools provided to the programmer to help in debugging the program logic. These tools are called debug packages or tracing routines. They assist the programmer in following the logic by printing out calculation results and field values used in making logic decisions in the program. In a few cases it may be necessary to use a memory dump – a printout of the instructions and data held in the computer's memory – in order to find the cause of logic errors.

Exercise 1

Match the terms with the definitions:

Column A

1. Computer;
2. Input;
3. Output;

4. Software;
5. Hardware;
6. Storage;
7. CPU;
8. CU;
9. ALU;
10. Program.

Column B

- a. An electronic device accepting data processing results from the computer system;
- b. The unit performing arithmetic operations called for in the instructions;
- c. The unit coordinating all the activities of various components of the computer. It reads information, interpretes instructions, performs operations, etc;
- d. A set of programs designed to control the operation of a computer;
- e. Lists of instructions followed by the control of the CPU;
- f. An electronic device keying information into the computer;
- g. The unit holding all data to be processed, intermediate and final results of processing;
- h. Visible units, physical components of a data processing system;
- i. The unit that directs the sequence of system operations, select instructions and interpretes them;
- j. A device with a complex network of electronic circuits that can process information, make decisions, and replace people in routine tasks.

UNIT 6

COMPUTER SOFTWARE

Topical Vocabulary

general-purpose machine – машина общего применения, станок общего назначения;
system software – системное программное обеспечение;
applications software – прикладное программное обеспечение;
boot – загружать;
peripheral hardware – внешнее оборудование, устройство;
malicious software – вредоносное программное обеспечение;
executable modules – исполнимый (исполняемый) модуль
скомпонованный объектный модуль;
encapsulation – закрытие;
equilateral – равносторонний;
isosceles – равнобедренный;
reusable code – многоразовый код;
scratch – царапать;
debug – дорабатывать (*аппаратуру*), отлаживать (*программу*).

A computer to complete a job requires more than just the actual equipment or hardware we see and touch. It requires Software – programs for directing the operation of a computer or electronic data.

Software is the final computer system component. These computer programs instruct the hardware how to conduct processing. The computer is merely a general-purpose machine which requires specific software to perform a given task. Computers can input, calculate, compare, and output data as information. Software determines the order in which these operations are performed.

Programs usually fall in one of two categories: system software and applications software.

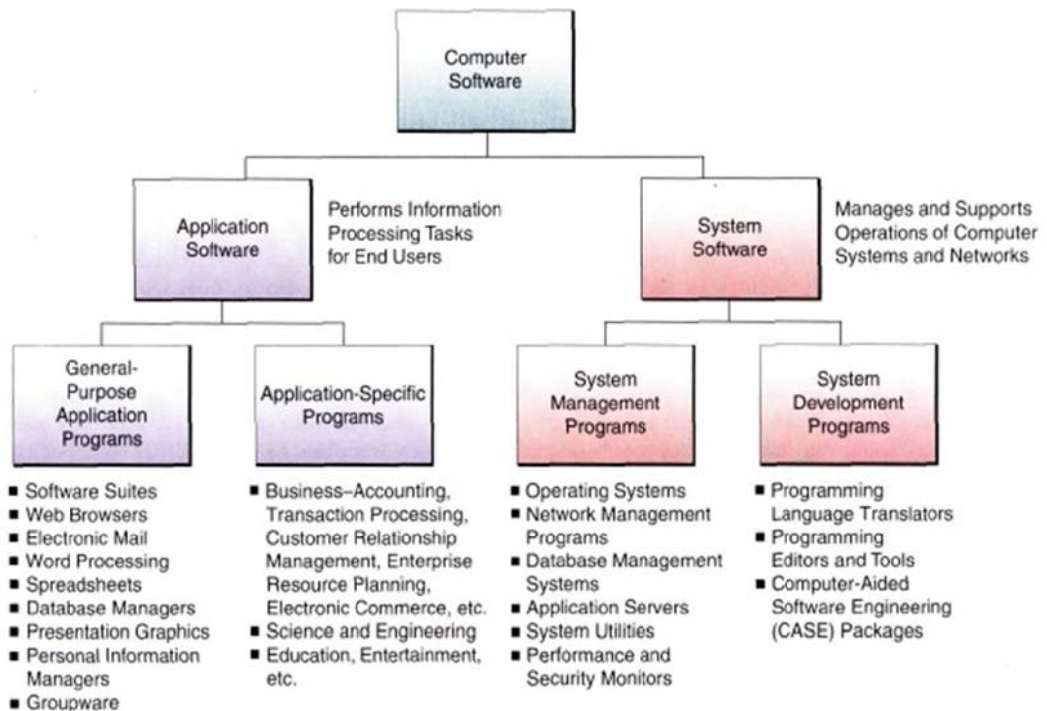
System software controls standard internal computer activities. An operating system, for example, is a collection of system programs that aid in the operation of a computer

regardless of the application software being used. When a computer is first turned on, one of the systems programs is booted or loaded into the computers memory. This software contains information about memory capacity, the model of the processor, the disk drives to be used, and more. Once the system software is loaded, the applications software can be brought in.

System programs are designed for the specific pieces of hardware. These programs are called drivers and coordinate peripheral hardware and computer activities. User needs to install a specific driver in order to activate a peripheral device. For example, if you intend to buy a printer or a scanner you need to worry in advance about the driver program which, though, commonly goes along with your device. By installing the driver you «teach» your mainboard to «understand» the newly attached part.

Application software satisfies your specific need. The developers of application software rely mostly on marketing research strategies trying to do their best to attract more users (buyers) to their software. As the productivity of the hardware has increased greatly in recent years, the programmers nowadays tend to include as much as possible in one program to make software interface look more attractive to the user.

Data communication within and between computers systems is handled by system software. Communications software transfers data from one computer system to another. These programs usually provide users with data security and error checking along with physically transferring data between the two computer's memories. During the past five years the developing electronic network communication has stimulated more and more companies to produce various communication software, such as Web-Browsers for Internet.



Malicious software or malware, computer programs developed to harm and disrupt computers. As such, malware is undesirable. Malware is closely associated with computer-related crimes, though some malicious programs may have been designed as practical jokes.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

ВХОД, ВВОД; ПОДСЧИТЫВАТЬ; ВЫВОД; УСТАНАВЛИВАТЬ; ПЕРЕДАВАТЬ ДАННЫЕ; ВЫПОЛНЯТЬ ДАННОЕ ЗАДАНИЕ; КОМПЬЮТЕРНАЯ ПАМЯТЬ; ВОЗМОЖНОСТИ ПАМЯТИ; ЗАРАНЕЕ; ВРЕДИТЬ; НЕЖЕЛАТЕЛЬНЫЙ.

Object-Oriented Programming

One of the principal motivations for using OOP is to handle multimedia applications in which such diverse data types as sound and video can be packaged together into executable modules.

Another is writing program code that's more intuitive and reusable; in other words, code that shortens program-development time.

Perhaps the key feature of OOP is encapsulation-bundling data and program instructions into modules called “objects”. Here’s an example of how objects work. An icon on a display screen might be called “Triangles”. When the user selects the Triangles icon – which is an object composed of the properties of triangles and other data and instructions – a menu might appear on the screen offering several choices. The choices may be (1) create a new triangle and (2) fetch a triangle already in storage. The menu, also is an object as are the choices on it. Each time a user selects an object, instructions inside the object are executed with whatever properties or data the object holds, to get to the next step. For instance, when the user wants to create a triangle, the application might execute a set of instructions that displays several types of triangles – right, equilateral, isosceles, and so on.

Many industry observers feel that the encapsulation feature of OOP is the natural tool for complex applications in which speech and moving images are integrated with text and graphics. With moving images and voice built moving images are integrated with text and graphics. With moving images and voice built into the objects themselves, program developers avoid the sticky problem of deciding how each separate type of data is to be integrated and synchronized into a working whole.

A second key feature of OOP is inheritance. This allows OOP developers to define one class of objects, say “Rectangles”, and a specific instance of this class, say “Squares” (a rectangle with equal sides). Thus, all properties of rectangles – “Has 4 sides” and “Contains 4 right angles” are automatically inherited by Squares.

A third principle behind OOP is polymorphism. This means that different objects can receive the same instructions but deal with them in different ways. For instance, consider again the triangles example. If the user right clicks the mouse on “Right triangle”, a voice clip might explain the properties of right triangles. However, if the mouse is right clicked on “Equilateral triangle” the voice instead explains properties of equilateral triangles.

The combination of encapsulation, inheritance and polymorphism leads to code reusability. “Reusable code” means

that new programs can easily be copied and pasted together from old programs. All one has to do is access a library of objects and stitch them into a working whole. This eliminates the need to write code from scratch and then debug it. Code reusability makes both program development and program maintenance faster.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

объектно-ориентированная программа; треугольник; прямоугольник; квадрат; полиморфизм; сокращать; главная особенность; доступ.

Exercise 2

Answer the questions:

1. What advantages of using OOP are mentioned in the text?
2. What are the three key features of OOP?
3. What multimedia data types are referred to in the text?
4. List the different types of triangle mentioned in the text.
5. What specific type of rectangle is named in the text?
6. What common properties of a rectangle are mentioned in the text?
7. What features are made quicker by code reusability?

Exercise 3

Match the terms in Column A with the statement in Column B:

Column A

1. OOP;
2. Encapsulation;
3. Object;
4. Menu;
5. Square;
6. Polymorphism;
7. Library.

Column B

- a. An OOP property that allows data and program instructions to be bundled into an object;
- b. A list of choices;
- c. An OOP property that enables different objects to deal with the same instruction in different ways;
- d. A reusable collection of objects;
- e. A module containing data and program instructions;
- f. Object-orienting Programming;
- g. A rectangle with equal sides.

DISCUSSION

– Work in pairs. Write five sentences comparing three software products you use or know.

UNIT 7

TECHNICAL SUPPORT

Topical Vocabulary

fee-based service – платные услуги;
charge for – плата за;
desktop computer – настольный компьютер;
laptop – портативный компьютер, ноутбук;
cluster – группа;
peripheral – внешний;
input device – устройство ввода;
output device – устройство вывода;
data storage device – устройство хранения данных, внешнее запоминающее устройство;
disk array – дисковая матрица;
router – маршрутизатор (устройство для соединения сетей);
switcher – переключатель, коммутатор;
fiber optics – волоконная оптика;
wireless network – беспроводная сеть;
installing – установка, сборка, монтаж;
uninstalling – удаление;
reinstalling – переустановка;
restore – восстановить, возместить;
reapply – использовать повторно.

Technical support (often shortened to tech support) refers to a multitude of services by which enterprises provide assistance to users of technology products such as mobile phones, televisions, computers, software products or other electronic or mechanical goods. In general, technical support services attempt to help the user solve specific problems with a product rather than providing training, customization, or other support services. Most companies offer technical support for the products they sell, either freely available or for a fee. Technical support may be delivered over by e-mail, live support software on a website, or a tool where users can log a call or incident. Larger organizations frequently

have internal technical support available to their staff for computer-related problems. The Internet can also be a good source for freely available tech support. In addition, some fee-based service companies charge for premium technical support services.

Hardware repair

While computer hardware configuration varies widely, a technician will work with five general categories of hardware; desktop computers, laptops, servers, computer clusters and smartphones / mobile computing. Technicians also work with and occasionally repair a range of peripherals, including input devices (like keyboards, mice, and scanners), output devices (like displays, printers, and speakers), and data storage devices such as internal and external hard drives and disk arrays. Technicians involved in system administration might also work with networking hardware, including routers, switches, fiber optics, and wireless networks.

Software repair

When possible, repair technicians protect the computer user's data and settings, so that after repair, the user will not have lost any data and the technician can fully use the device with little interruption, and then diagnose the problem. Addressing the issue, the technician could take action as minor as adjusting one or several settings or preferences, but could also apply more involved techniques like installing, uninstalling, or reinstalling various software packages. A reliable, but somewhat more complicated, procedure for addressing software issues is known as a restore, in which the computer's original installation image (including operating system and original applications) is reapplied to a formatted hard drive. It should be known though, that anything unique, such as settings, or personal files will be destroyed if not backed up on external media, as this reverts everything back to its original unused state.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

техническая поддержка; внутренняя техническая поддержка; проблемы с компьютером; бесплатный; защищать данные; установка; удаление; переустановка; сложная процедура.

Exercise 2

Answer the questions:

1. Have you ever had a software problem (a hardware problem)?
2. What kind of problem?
3. What did you do about it?
4. How did you get help?

Exercise 3

Complete the dialogue with the words:

checked disconnected found go switched type
tight unplugged worked working

Haider: Hello, IT Help Desk

Maryam: Hi, this is Maryam from Human Resources.

Haider: Hi, this is Haider. How can I help you, Maryam?

Maryam: I (1) _____ my computer off yesterday and today I can't turn it on.

Haider: What (2) _____ of computer do you have?

Maryam: I'm not sure. It's a desktop computer. It (3) _____ fine yesterday.

Haider: Don't worry. Have you (4) _____ the cable connections?

Maryam: No, I haven't. I can see some cables but I don't know which cable goes where.

Haider: Make sure all cables are (5) _____ and fully plugged in.

Maryam: Ok, give me a sec. Oh, I think I've (6) _____ the problem. I have one cable that is (7) _____. It's the power cable. Where does it go?

Haider: The power cable should (8) _____ in the three-pronged port on the computer.

Maryam: Ok, done. Let me try now. It's (9) _____ fine. Sorry about that. Stupid of me.

Haider: Maybe the cleaners (10) _____ your PC by mistake last night.

Maryam: Maybe. Good, we've solved the problem. Thank you, Haider.

Haider: You're welcome. Have a good day.

Maryam: You too.

DISCUSSION

– Work in pairs. Write a short dialogue between an IT help desk technician and a colleague about a software or hardware problem.

– Diagnose these faults and provide advice on each problem.

1. My laser printer produces very faint copies.
2. When I print, three or four sheets come through the printer at the same time.
3. My PC is switched on but the monitor screen is blank.
4. I tried to print a document but nothing came out of the printer.
5. My monitor picture is too narrow.
6. My mouse responds erratically.

UNIT 8

DATA SECURITY

Topical Vocabulary

host cell – клетка-хозяин;
payload – полезная нагрузка;
dormant – бездействующий;
trigger event – начальное событие;
firewall – межсетевой экран;
encrypt – шифровать;
callback system – система с обратным вызовом (соединением);
uninterruptible – непрерывный;
rotate – вращать, чередовать;
vendor-supplied software – программные средства поставщика компьютера;
bottleneck – помеха припятствия;
data-intensive application – приложение для обработки (с обработкой) больших объёмов данных;
SCSI interface – Small Computer System Interface, интерфейс малых вычислительных систем, системный интерфейс малых персональных компьютеров;
NAS (Network Attached Storage) – сетевое устройство хранения данных; NAS-устройство;
LAN (Local Area Network) – ЛВС (Локальная Вычислительная Сеть);
hub – хаб (устройство соединения ветвей многоточечной сети);
bandwidth – пропускная способность.

The Anatomy of a Virus

A biological virus is a very small, simple organism that infects living cells, known as the host, by attaching itself to them and using them to reproduce itself. This often causes harm to the host cells.

Similarly, a computer virus is a very small program routine that infects a computer system and uses its resources to reproduce itself. It often does this by patching the operating system to enable

it to detect program files, such as COM or EXE files. It then copies itself into those files. This sometimes causes harm to the host computer system.

When the user runs an infected program, it is loaded into memory carrying the virus. The virus uses a common programming technique to stay resident in memory. It can then use a reproduction routine to infect other programs. This continues until the computer is switched off.

The virus may also contain a payload that remains dormant until a trigger event activates it, such as the user pressing a particular key. The payload can have a variety of forms. It might do something relatively harmless such as displaying a message on the monitor screen or it might do something more destructive such as deleting files on the hard disk.

When it infects a file, the virus replaces the first instruction in the host program with a command that changes the normal execution sequence. This type of command is known as a JUMP command and causes the virus instructions to be executed before the host program. The virus then returns control to the host program which then continues with its normal sequence of instructions and is executed in the normal way.

To be a virus, a program only needs to have a reproduction routine that enables it to infect other programs. Viruses can, however, have four main parts. A misdirection routine that enables it to hide itself; a reproduction routine that allows it to copy itself to other programs; a trigger that causes the payload to be activated at a particular time or when a particular event takes place; and a payload that may be a fairly harmless joke or may be very destructive. A program that has a payload but does not have a reproduction routine is known as a Trojan.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

живые клетки; причинять вред; зараженная вирусом программа; выключать; разрушительный; удаление файлов;

жесткий диск.

Exercise 2

Answer the questions:

1. What are the similarities between computer viruses and biological viruses?
2. What is the effect of a virus patching the operating system?
3. Why are some viruses designed to be loaded into memory?
4. What kind of programs do viruses often provide?
5. How does a Trojan differ from a virus?
6. Have you ever had a problem with a virus?

Exercise 3

Match each virus routine to its function.

Routine:

1. Misdirection;
2. Reproduction;
3. Trigger;
4. Payload.

Function:

- a. Does the harm;
- b. Attaches a copy of itself to another program;
- c. Hides the presence of the code;
- d. Decides when and how to activate the payload.

Security Measures for Protecting Hardware and Software:

1. Control access to Hardware and Software
 - Lock physical locations and equipment
 - Install a physical security system
 - Monitor access 24 hours a day
2. Implement Network Controls
 - Install firewall to protect networks from external and internal attacks

- Password-protect programs and data with passwords which cannot easily be cracked
- Monitor username and password use – require changes to passwords regularly
- Encrypt data
- Install a callback system
- Use signature verification or biometric security devices to ensure user authorization
- 3. Protect against natural disasters
 - Install uninterruptible power supplies and surge protectors
- 4. Backup data and programs
 - Make intermental backup, which are copies of just changes to files, at frequent intervals
 - Make full backups, which copy all files, periodically
 - To protect files from natural disasters such as fire and flood, as well as from crimes and errors, keep backups in separate locations, in fireproof containers, under lock and key
- 5. Separate and rotate functions
 - If functions are separate, then two or more employees would need to conspire to commit a crime
 - If functions are rotated, employees would have less time to develop methods to compromise a program or system
 - Perform periodic audits
- 6. Protect against viruses
 - Use virus protection programs
 - Use only vendor-supplied software or public domain or shareware products that are supplied by services that guarantee they are virus-free

Doing the SAN thing

As companies rely more on e-commerce, online-transaction processing and databases, the amount of information that needs to be managed and stored on a network can intimidate even the most experienced of network managers, while servers do a good job of storing data, their capacity is limited and they can become a bottleneck if too many users try to access the same information. Instead, most companies rely on peripheral storage devices, such

as tape libraries, RAID disks and even optical storage systems. These devices are effective for backing up data online and storing large amounts of information.

But as server farms increase in size and companies rely more heavily on data-intensive application, such as multimedia, the traditional storage model isn't quite as useful. This is because access to these peripheral devices can be slow, and it might not always be possible for every user to easily and transparently access each storage device.

The most basic way of expanding storage capacity on the network is to hang disk arrays or other storage devices off servers, using the SCSI interface or bus.

While SCSI has been a workhorse over the years for connecting peripherals at a relatively fast speed, distance limitations have kept this particular bus interface from evolving rapidly. The SCSI standards put a bus length limit of about 6m on devices. While this distance limitation doesn't really affect connecting storage devices directly to a server, it does severely restrict placing RAID and tape libraries at other points on the network.

Enter the NAS

This is where the concept of Network Attached Storage (NAS) comes in. NAS is simple in concept and execution: disk arrays and other storage devices connect to the network through a traditional LAN interface such as Ethernet. Storage devices would thus attach to network hubs, much the same as servers and other network devices. However, NAS does have a few drawbacks.

First, network bandwidth places throughput limitations on the storage devices. Another downside to NAS is the lack of cohesion among storage devices. While disk arrays and tape drives are on the LAN, managing the devices can prove challenging, since they are separate entities and not logically tied together. NAS has its place as a viable storage architecture, but large companies need something more.

Large enterprises that want the ability to store and manage large amounts of information have another option: the Storage Area Network (SAN). In a SAN, storage devices are connected to

many kinds of servers via a high-speed interconnection, such as Fibre Channel.

This high-speed link creates a separate, external network, that's connected to the LAN, but acts as an independent entity.

This setup allows for any-to-any communication among all devices on the SAN. It also provides alternative paths from server to storage device.

SANs offer several advantages. First, they allow for the addition of bandwidth without burdening the main LAN. SANs also make it easier to conduct online backups without users feeling the bandwidth pinch. When more storage is needed, additional drives do not need to be connected to a specific server; rather, they can simply be added to the storage network and accessed from any point.

Another reason for the interest in SANs is that all the devices can be centrally managed. Storage can be managed as a single entity, making it easier to deal with storage networks that could potentially consist of dozens or even hundreds of servers and devices.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

сделка; опытный; хранение данных; доступ к информации; дисковая матрица; недостаток; жизнеспособный.

Exercise 2

Answer the questions:

1. What 3 types of peripheral storage devices do most companies rely on for backing up data and storing information?
2. What traditional LAN interface is mentioned in the text?
3. Name 2 drawbacks of NAS.
4. Note the advantages of a SAN.

DISCUSSION

Work in pairs. Make a list of all the different words about security threats and attacks you can think of.

UNIT 9

COMPUTER AND HEALTH

Topical Vocabulary

vital – жизненно важный;
account – счет;
hack – взломать;
misuse – злоупотреблять, неправильно употреблять;
violation – нарушение;
dispose off – утилизировать;
tissues – ткани;
ligament – связка, сухожилие;
tendon – сухожилие;
CVS (computer vision syndrome) – компьютерный зрительный синдром;
MSD (musculoskeletal disorder) – нарушение опорно-двигательного аппарата;
eyestrain – зрительное напряжение;
fatigue – усталость, утомление;
blurred vision – нечеткое видение;
refocusing – перефокусировка;
blink – моргать, щуриться;
carpal tunnel syndrome – синдром запястного канала (неврологическое заболевание, проявляющееся длительной болью и онемением пальцев кисти);
tendonitis – тендинит (воспаление и дистрофия ткани сухожилия);
tingling – покалывание;
stiffness – неподвижность;
numbness – онемение;
bear in mind – иметь в виду;
glare-free – безбликовый;
throbbing – пульсирующий, ноющий.

Computer, its Advantages and Disadvantages

Computer has made a very vital impact on society. It has

changed the way of life. The use of computer technology has affected every field of life. People are using computers to perform different tasks quickly and easily. It also saves time and effort and reduces the overall cost to complete a particular task.

Many organizations are using computers for keeping the records of their customers. Banks are using computers for maintaining accounts and managing financial transactions. The banks are also providing the facility of online banking. The customers can check their account balance from using the internet. They can also make financial transaction online. The transactions are handled easily and quickly with computerized systems.

People are using computers for paying their bills, managing their home budgets or simply having some break and watching a movie, listening to songs or playing computer games. Online services like skype or social media websites are used for communication and information sharing purposes.

Computer can be used as a great educational tool. Students can have access to all sort of information on the internet. Some great websites like Wikipedia, Khan's Academy, Code Academy, Byte-Notes provides free resources for students and professionals.

Moreover, the computer is being used in every field of life such as medical, business, industry, airline and weather forecasting.

Disadvantages of Computer

The use of computer has also created some problems in society which are as follows.

Unemployment

Different tasks are performed automatically by using computers. It reduces the need of people and increases unemployment in society.

Wastage of time and energy

Many people use computers without positive purpose. They play games and chat for a long period of time. It causes wastage of time and energy. Young generation is now spending more time on the social media websites like Facebook, Twitter etc or texting

their friends all night through smartphones which is bad for both studies and their health. And it also has adverse effects on the social life.

Data Security

The data stored on a computer can be accessed by unauthorized persons through networks. It has created serious problems for the data security.

Computer Crimes

People use the computer for negative activities. They hack the credit card numbers of the people and misuse them or they can steal important data from big organizations.

Privacy violation

The computers are used to store personal data of the people. The privacy of a person can be violated if the personal and confidential records are not protected properly.

Health risks

The improper and prolonged use of computer can result in injuries or disorders of hands, wrists, elbows, eyes, necks and back. The users can avoid health risks by using the computer in proper position. They must also take regular breaks while using the computer for longer period of time. It is recommended to take a couple of minutes break after 30 minutes of computer usage.

Impact on Environment

The computer manufacturing processes and computer waste are polluting the environment. The wasted parts of computer can release dangerous toxic materials. Green computer is a method to reduce the electricity consumed and environmental waste generated when using a computer. It includes recycling and regulating manufacturing processes. The used computers must be donated or disposed off properly.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

изменить образ жизни; выполнять задание; экономить время; управление финансовыми сделками; управление домашним бюджетом; прогнозирование погоды.

Exercise 2

Answer the questions:

1. Why has computer made a very vital impact on society?
2. What are the main advantages of computer?
3. What are the main disadvantages of computer?
4. Can you add any other pluses and minuses of computer?

Computer and Health

The computer has now become essential equipment both in the office and at home. That is why countless people all over the world spend long hours a day in front of this machine. Computer use however carries with it some health risks. If workplace conditions are poor and work habits are improper, heavy computer users (those that use the computer at least two hours a day) can stress their eyes and soft tissues, especially their muscles, ligaments, tendons and nerves, and develop some painful and disabling conditions or injuries (sometimes permanent ones) including computer vision syndrome (CVS) and musculoskeletal disorders (MSDs).

The symptoms of CVS consist of eyestrain, headache, fatigue, double/blurred vision, dry eyes, burning/tired eyes, slow refocusing, neck and backache and light sensitivity. Fortunately, CVS is evidently a transient disorder that does not cause any permanent damage to the eyes.

A variety of factors that are unique to the computer screen contributes to CVS: the lack of contrast among the characters (unlike in printed material where the characters are dense black with well-defined edges); the uneven brightness the computer monitor is brightest at the center and this brightness diminishes in intensity peripherally; and, the distance from the eye of the object being viewed in the computer screen, the object being viewed is further (18" to 28") than in reading materials (16" to 21").

Another factor contributing to CVS is the fact that people working on computers blink less often than they should. Computer users blink only six to eight times per minute while the normal blink rate is 16 to 20 per minute. Blinking prevents the

eye surface from drying up because it spreads the tears that is produced continuously by the tear glands on the surface of the eye.

The common musculoskeletal disorders (MSDs) associated with prolonged computer use include carpal tunnel syndrome, tendonitis and arthritis. MSDs manifest as discomforts, aches, pains, tingling, stiffness or numbness in various joints and parts of the body, especially the hands, arms, shoulder, neck and back.

The following are measures that computer users can adopt to prevent CVS and MSDs. Bear in mind that the secret to preventing MSDs is a comfortable and relaxed body posture when using the computer.

- Ensure that your work area is well-lighted and glare-free.
- Make certain that air flow from electric fans and air conditioners does not run across and dry your eyes.
- Position the monitor a bit lower on the table than your eye-line, so that you are looking slightly down at it.
- Use eye drops to keep the eyes moist.
- Take regular breaks. Follow the 20-20-20 rule: Every 20 minutes, look at an object about 20 feet away and focus on it for 20 seconds.
- If you have vision problems, have yourself fitted with computer glasses. These special eyeglasses can usually be secured from reputable eye-wear stores.
- Use an ergonomically-designed computer table and chair. Adjust your work surface and chair height to assume a comfortable and natural body posture.
- Rest your feet comfortably on the floor.
- Place the keyboard and mouse at the same height at about elbow level.
- Keep your wrists straight while typing and while using a mouse.
- Use light touch when typing, clicking the mouse or using a joystick.
- Do not grip the mouse tightly; hold it gently.

If you experience persistent or recurring symptoms such as discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness, do not ignore them. See a physician.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

нарушение опорно-двигательного аппарата; головная боль; двойное видение; уставшие глаза; длительное использование компьютера; установить монитор; капли в глаза.

Exercise 2

Answer the questions:

1. What has become essential equipment?
2. What does computer use carry?
3. What will happen to heavy computer users?
4. What are the symptoms of CVS?
5. Does CVS cause permanent damage to the eyes?
6. What are the factors that are unique to the computer screen that contribute to CVS?
7. What does blinking prevent?
8. What are the common musculoskeletal disorders (MSDs) associated with prolonged computer use?
9. What are the manifestations of MSDs?
10. What is the secret to preventing MSDs?

Computer and Safety

Things you should do:

- Run Scandisk regularly to check and repair your file systems.
- Connect all peripherals before you switch the computer on.
- Keep your keyboard and screen clean.
- Keep CDs and DVDs in covers and hold them by the edge when using.
- Always shut down your laptop computer first if you need to move it.
- Secure your hardware from sudden power surges.

Things you should not do:

- Do not disconnect the keyboard, mouse, monitor, printer or any peripheral if the PC is on.
- Don't eat food or drink near the keyboard and computer. Don't blow smoke over your PC.
- Don't move or lift your desktop computer when it's on. Don't drop your laptop.
- Don't clean your hardware with a household polish or cleaner.
- Don't turn your computer off for lunch breaks.
- Don't load unauthorised software.

Exercise 1

Answer the questions:

1. Which rules do you follow? Why?
2. What other rules can you add to the list?
3. What is the most important rule you can give about computer use?

DISCUSSION

Work in pairs. You are systems safety coordinators. You have already completed two inspections of the IT systems in QuickFix Ltd. The first inspection was about network security and the second about health and safety in a workplace. Your investigation shows that the company has very poor security and safety systems.

UNIT 10

THE FUTURE OF IT

Topical Vocabulary

VoIP – протокол, кодирующий голосовые сигналы по протоколу IP;
apps (application) – приложение;
Internet data plan – информационный интернет-портал;
emoticon sticker – смайлик;
the midst of convergence – условия конвергенции;
smart – разумный, умный;
feedback loop – обратная связь;
offspring – потомство, потомок;
extraterrestrial – неземной;
technophobic – страдающий технофобией.

Recent Developments in IT (Viber)

There is no doubt that almost every field has developed significantly over the past few decades and it is visible in the field of information technology. It is clearly seen from the recent figures that World Wide Web namely Internet and other communication systems by e-mail have developed and spread sharply in many countries around the globe and also even in poor societies.

In the past couple of years more and more communications which used to use the regular mobile operator networks started moving towards IP-based networks. This has given rise to ‘apps’ on smartphones that enable consumers to connect to each other without the use of their mobile operator. And one of the apps is Viber, a VoIP application used on cellphones.

Viber is a free-calling app for Computer, mobile, android devices. This app is developed to make free calls and send free messages to any device which has Viber installed in it. It doesn't depend on network or model of Android phones. Viber also sends photo and video messages for free to anyone who has a viber account in its device. To get the good experience and performance

it can be integrated with the Android OS. The app synchronizes with mobile contact list, and automatically finds out which of the members in the contact list have Viber account.

In the present world of technology one can contact its friend present at any part of the world with free-calling apps. Viber app is the best because it allows making free phone calls, sending photo, text and video messages. It can support group messaging up to 40 friends at a time. For sending free messages or calling it uses internet plans present in the device. It's an alternative option to Skype to provide free-calling facility to its user.

Features of Viber:

- It has got best-quality VoIP calls facility by using 3G or Wi-Fi.
- Calling and messages use internet data plan.
- It can connect with Face book, Twitter and other social networking sites.
- It's completely free from advertising.
- Free calls are made with HD sound quality.
- Send emoticon stickers, for making funny messages.
- Notification facility present gives a guarantee that one can never miss a call or message, even if it's off.
- One can respond immediately to messages using quick reply service.

It's also available with localized versions with most commonly spoken languages of the world. Viber was initially launched for iPhone on 2nd December 2010, to give direct and stiff competition to Skype. Viber app for different Smart phones such as Windows Phone BlackBerry devices was launched on 8th May 2012. From another research it was found that it has reached to 90 million users by July 2012. It has gain its popularity because it supports a group messaging service, free calling and HD sound quality and the voice engine is supported by both Android and iPhone applications. As Viber is available for all types of smartphones, so it has more than 200 million users who can text, call, and send photo and video messages worldwide over Wi-Fi or

3G for free. It's being rated at 4.4 by all the android users across the world.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

всемирная паутина; мобильный телефон; бесплатный звонок; бесплатные сообщения; устанавливать; выяснять, узнавать; видеосообщения; одновременно; быть отключенным; отвечать; конкуренция; завоевать популярность.

Exercise 2

Answer the questions:

1. What is the main aim of Viber?
2. What are the main functions of Viber?
3. What are the differences of Viber from Skype?
4. What are the features of Viber?

The Future of IT

We are in the midst of convergence. At the hardware layer, computer, phones and consumer electronics are converging. At the applications layer, we see convergence of information, entertainment, communications, shopping, commerce and education.

Computers have come from nowhere 50 years ago and are rapidly catching up in capability within the human brain. Computer will continue to get smarter. There is a noticeable positive feedback loop in technology development, with each generation of improved computers giving us more assistance in the design and development of the next.

Ultimately, they will design their offspring with little or no human involvement. This technology development will push every field of knowledge forwards, not just computing. It will be almost as though extraterrestrials had landed in 2020 and given us all their advanced technology overnight.

But we will never get far unless we can solve the interface problem. In the near future we may have electronic pets, with video camera eyes and microphone ears, linked by radio to the family computer. With voice and language recognition we will have easy access to all that the Internet can provide. We can tell the pet what we want and it will sort it out for us. It will be impossible to be technophobic about such an interface, and the only IT skill needed will be to speak any major language.

Exercise 1

Find in the text English equivalents of the following words and word combinations:

уровень аппаратных средств; прикладной уровень; торговля; человеческий мозг; поколение; поверхностная проблема; распознавание голоса и языка; доступ.

Exercise 2

Answer the questions:

1. How does the author justify his claim that we are “in the midst of convergence”?
2. What does he mean by a “positive feedback loop” in computer development?
3. Why will knowledge of a major language be the only IT skill needed?
4. Which of the author’s predictions do you accept?

DISCUSSIONS

Search for the latest developments in one area of information Technology. Make a summary of your findings to report to the rest of the group.

How do you think developments in IT will affect these areas of life in the next ten years?

1. Commerce;
2. Work;
3. The relationship between humans and computers.

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Татаревич Марина Вячеславовна
Ширяев Владислав Викторович

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