Е. Ю. Бутенко

АНГЛИЙСКИЙ ЯЗЫК ДЛЯ ИТ-НАПРАВЛЕНИЙ. IT-ENGLISH

УЧЕБНОЕ ПОСОБИЕ
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Пособие подготовлено для углубленного изучения английского языка в сфере информационно-компьютерных технологий. Состоит из учебных блоков с единой структурой и представляет аутентичные тексты по специальности, профессиональный глоссарий к ним и задания, направленные на развитие всех речевых умений в рамках коммуникативной компетенции: vocabulary, grammar, speaking/discussion.

Соответствует актуальным требованиям Федерального государственного образовательного стандарта высшего образования.

Для студентов высших учебных заведений, обучающихся по инженерно-техническим направлениям.

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Оглавление

Предисловие (Foreword)

Данное учебное пособие предназначено для студентов академического бакалавриата направления «Информационные технологии», изучающих деловой английский язык и владеющих им на уровне Intermediate — Upper-Intermediate (B1/B2).

Цель пособия — формирование профессионально-ориентированной компетенции в сфере делового английского языка, развитие у студентов способности иноязычного общения в конкретных ситуациях с учетом особенностей профессионального мышления.

В результате освоения дисциплины студент должен:

знать

- лексический минимум в объеме, необходимом для оформления профессионально-ориентированной иноязычной речи;
- основные грамматические явления;
- правила речевого этикета, характерные для английского языка в информационно-технологической сфере;

уметь

- переводить аутентичные неадаптированные тексты информационно-технологической тематики с английского языка на русский со словарем;
- извлекать необходимую информацию из устных и письменных источников информационно-технологического характера без словаря;
- вести монологическую и диалогическую речь в рамках изученных тем с учетом правил речевого общения в информационно-технологической сфере;
- грамотно использовать грамматические структуры, специальную лексику и термины;
- подготовить устное публичное выступление информационно-технологического характера;

владеть

- навыками разговорной речи на английском языке и перевода текстов, относящихся к информационно-технологической деятельности;

• навыками аннотирования и реферирования текстов профессионального характера;

• навыками сбора, анализа и критической оценки информации, полученной из англоязычных источников (в том числе из сети Интернет).

Пособие состоит из 12 учебных блоков (Units), которые охватывают широкий диапазон тем из области компьютерных и информационных технологий и имеют единую структуру: задания для дискуссии, которые могут выполняться как всей группой, так и в диалоге с собеседником; словарь по теме с транскрипциями: Key Terms, Vocabulary Guide и Pronunciation Guide; аутентичный текст, снабженный вопросами и упражнениями, направленными на системный подход в расширении потенциального словаря обучаемых и развитие всех речевых умений в рамках коммуникативной компетенции, проверяющими усвоение материала.

В разделе Supplementary reading содержатся оригинальные тексты по темам, связанным с различными аспектами сферы компьютерных технологий, для дополнительного чтения, на отработку навыков чтения и перевода.

В глоссарии (Glossary) приведен перечень основных терминов, необходимых для усвоения текстовой информации и выполнения заданий.

Материалы пособия могут быть полезны для подготовки презентаций, составления ролевых игр и анализа кейсов, ориентируют студентов на осознанное и грамотное выполнение заданий.

Пособие ставит задачу оптимизации процесса обучения иноязычному профессиональному общению и подготовки к чтению специализированной оригинальной литературы с точным пониманием смысла, и в целом способствует качеству подготовки студентов.

Unit 1
WHAT IS ICT?

Before you read

Discuss the following with your partner.

1. Do you know the origin of the word “technology”? Do you know any related words or phrases?
2. Do you know where the words “information” and “communication” come from? Find the root of each word. Think of definitions.
3. How do new words come into a language?
4. What borrowed words do you know and use in your native language?

Key Terms

Look at the Glossary pages to find the definitions of the Key Terms of Unit 1: ICT, IT, RFID, LAN.

Vocabulary Guide

backbone (*n*) — 1) основа, опора, суть; 2) магистраль
capability (*n*) — 1) возможность, способность; 2) производительность; 3) характеристика
concise (*a*) — краткий; сжатый; недолговременный
deploy (*v*) — вводить в действие, разворачивать
discard (information) (*v*) — отбрасывать, отвергать (*напр., данные*); не учитывать (*напр., весь принимаемый кадр информации или его часть*)
disposal (*n*) — освобождение
drastic (*a*) — 1) глубокий; 2) крутой; 3) форсированный

facilitate (*v*) — облегчать, способствовать, помогать, продвигать
inclined (*a*) — расположенный, предрасположенный, склонный
mainstay (*n*) — главная поддержка, опора, оплот
omission (*n*) — опускание; вычеркивание
shredder (*n*) — шредер, машинка для уничтожения бумаг
unify (*v*) — унифицировать; выполнять операцию унификации

Pronunciation Guide

array — [əˈreɪ]
whilst — [waɪlst]
subtle — [ˈsʌtl]
predominant — [prɪˈdɒmɪnənt]
internal — [ɪnˈtɜːnəl]
initiate — [ɪˈnɪʃ.i.eɪt]
computational — [kɒm.pjʊˈteɪ.ʃən.əl]

Reading

Read and translate the text.

WHAT IS ICT

An abbreviation for Information and Communications Technology, ICT is analogous to Information Technology (IT), but ICT includes a focus on unified communications and the integration of telecommunications for the ability to store and transmit information.

First used in the 1980s, ICT became popular as a term in 1997 when it was used in a report to the UK government by Dennis Stevenson.

Information and Communication Technology is a term used to describe a wide array of tools that not only facilitate for the communication of information, but also the processing and storing of information. ICT has become a mainstay in every sphere of our lives, sometimes passively but usually very actively. ICT can also stand for Information Communication Technologies, the absence of the “and”, whilst subtle, is major. Information Communication

Technologies are technologies that are used for the distribution of information, such as radio, the Internet and broadcast television. We shall be referring to ICT as Information and Communication Technologies, as we intend to include information management in our definition.

It is important to note the slight distinction between ICT and Information Technology (IT). IT is generally considered the more business term, whilst ICT is more predominant in academic literature. ICT is more concise, which is why, though more academically inclined, will be the focus of this writing. ICT consists of a number of layers according to the Open Systems Interconnection model (OSI). The OSI model is a conceptual model that characterizes and standardizes the internal functions of a communication system by separating it into different layers of abstraction. The model is ideal to show the way information is communicated from individual to individual. It is incomplete in regards to its omission of the storage and discarding of information.

The Figure 1: OSI 7 Layers Model, shows how information moves from the view of the user at the application layer, at which the user interacts with the information, the presentation layer which is the manner in which information is presented (video, text, sound) and the Session layer is about initiating and terminating communications between devices. Transport and Network layers are all about the rules (protocols) of engagement of devices [e.g. Transmission Control Protocol (TCP)]. The Data Link and Physical layers are both physical layers of initiation and terminations of communications, with the Data Link acting as reliability check for the connection created at the physical layer.

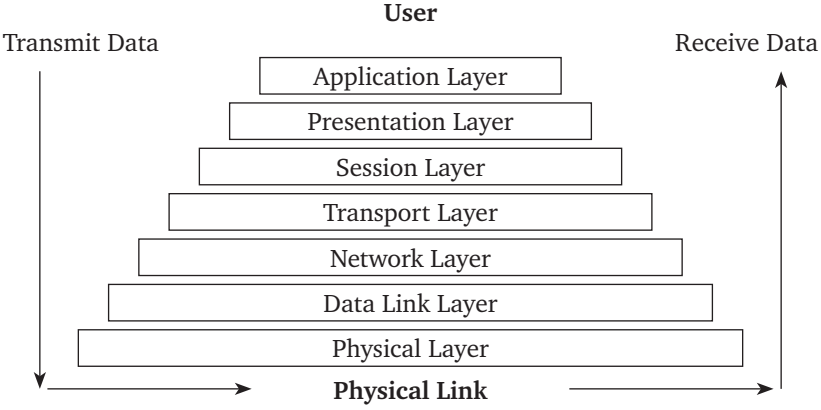

Fig. 1. **OSI 7 Layers Model**

ICT through business support systems enables business processes. ICT's allow users to not only communication information, but also to store and process data. These capabilities complete scope of ICT. This complete set lead to ICT enabled business processes as shown in Figure 2: ICT Enabled Business Process.

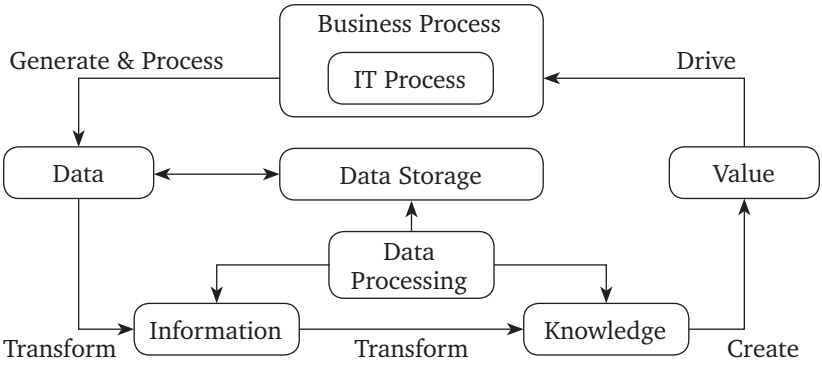

Fig. 2. **ICT Enabled Business Process**

ICT enabled processes generate data, which is processed into information, stored and distributed through the 7 layers of the OSI model to whatever platform the user might be using.

In so doing, the process creates business value, which in turn drives the business. ICT in a business context is about the use of electronic tools that allow for the communication, processing, storage and discarding of information. Organisations exist in order to return value. Non-profit organisations return their value through social returns whilst for-profit organisations predominantly realise returns through profit. Both types of organisations are made up of the same elements, namely: 1) Information; 2) People; 3) Facilities (buildings); 4) Services/Products. ICT influences information within any organisation in a number of ways, one being the enablement of information to be distributed to relevant people in a multitude of media. A notice can be emailed, printed, broadcast on an organisation noticeboard or announced on an internal broadcast system.

Gordon E. Moore, co-founder of *Intel Corporation*, made an observation that computational power doubled every two years. This was in 1965. The first computer was the ENIAC. It was developed in 1946 at Princeton University. It weighed 30 tons, was 24 meters long and cost six million dollars; it only did 5000 calculations every second. A cell phone from the turn of the century is 17,000x cheaper, 40,000,000x smaller, it uses 400,000x less power, but it's 1,300x

more powerful. ICT computational power allows for processing of information to assist decision makers in making decisions.

The storage of information has also gone through such drastic improvements and continues to. Organisations, thanks to ICT, can store more information for less than ever before. Also thanks to ICT, the disposal of outdated and sensitive information is cheaper, faster and more integral, since a lot of information is now electronically stored. ICT storage devices are much quicker and cheaper at discarding information than the expensive and timely age of paper where shredders and burning where the only options.

Organisations consist of people. People who set direction (Directors), people who manage the activities to reach set objectives (mangers), people who do (business related workers) and those who support those who do (support staff [Human Resources, Accounting, ICT, etc]). The ICT department of most organisations acts as a support department for the business. In a business context, ICT includes the technical staff that manage the organisation's technologies. All organisations have business premises from which they operate from. The size of the premises is all dependent on the size of the organisation and their business model.

ICT assists in the management of facilities through technologies like Radio Frequency Identification (RFID) access control systems and fire detection systems. Local Area Networks (LAN) are deployed throughout business premises and they act as the backbone for the transportation of information throughout the organisation. LAN's make up the layers 1 to 5 of the OSI model. They are also connected to storage and processing devices.

All organisations exist to create value, either through the provision of a service or through creating a product. ICT can be either a product or service or an enabler to the creation of products and provision of a services. ICT products are hardware and software. ICT services can be in the form of consultancy or outsourced technical assistance. ICT can also be seen as an enabler in the creation of products through the mechanisation of manufacturing processes or the digitizing of business services, e.g. a non-profit law firm providing legal advice through the Internet.

What is ICT? The Oxford Dictionary defines technology as "the application of scientific knowledge for practical purposes, especially in industry", and communication as "the imparting or exchanging of information by speaking, writing, or using some other medium". So, to put it simply, ICT is the application of scientific knowledge for practical purposes in order to impart or exchange information by speaking, writing, or other mediums [18].

Answer the questions and do the tasks using the information from the text.

1. What do the letters ICT stand for?
2. Give the definition of the term “ICT”.
3. What is OSI model?
4. What does the scheme in figure 1 show?
5. Describe the scheme in figure 2.
6. Why is ICT so valuable for business?
7. How did a computational power of ICT change?
8. What drastic improvements occurred in the storage of information thanks to ICT?
9. Interpret the terms “RFID” and “LAN”.
10. What do you know about the products and services in the sphere of ICT?

Vocabulary Practice

Think of synonyms and antonyms if possible for the underlined words.

Speaking

Make a plan of the text and a 10-sentence summary.

Unit 2
ICT IN THE WORKPLACE

Before you read

Discuss the following with your partner.

1. What roles does ICT play in business?
2. What impact has ICT had on work? What kind of new work skills are needed today?
3. Why are teleworking and outsourcing becoming more and more important?
4. What impact has ICT had on education?

Key Terms

Look at the Glossary pages to find the definitions of the Key Terms of Unit 2: virtual, outsourcing, telecommunications, Internet, Intranet.

Vocabulary Guide

airfare (*n*) — стоимость авиаперелета, цена авиабилета
attendee (*n*) — участник (конференции, семинара)
clock up (*v*) — 1) отмечать пройденное расстояние; 2) записывать в актив, в число достижений
dip (sb's toe) (*v*) — макать, окунать (чей-то палец ноги)
downturn (*n*) — спад (деловой активности); понижение, уменьшение
eliminate (*v*) — устранять, исключать
evangelical (*a*) — евангелический (относящийся к Евангелическо-лютеранской церкви)

flock (*v*) — стекаться; приходить толпой, собираться толпами
forge (*v*) — 1) постепенно выходить на первое место; 2) возглавлять, лидировать
implosion (*n*) — 1) уменьшение, сокращение; 2) обвал, фиаско (в политике, экономике)
plug (insurance) (*v*) — рекламировать (страхование)
recession (*n*) — рецессия, спад
standpoint (*n*) — позиция, точка зрения
tactile (*a*) — 1) осязательный, тактильный; 2) осязаемый, ощутимый

Pronunciation Guide

executive — [ɪgˈzekjətɪv]
evangelical — [ˌi:vænˈdʒelɪkəl]
brochure — [brəʊˈʃʊr]
employee — [ɪmˈplɔɪi:]
tactile — [ˈtæk.taɪl]

Reading

Read and translate the text.

RISE OF THE VIRTUAL CONFERENCE

Virtual conferences are set to explode and steal a slice of the action away from real-life trade shows.

A report last month by Market Research Media said the marketplace will grow to $18.6bn over the next five years.

One of the big players in the field, *ON24* said their survey showed 87 % of 10,000 executives ready to go virtual.

"It is still an evangelical market, but the recession has helped businesses see the value of virtual environments", said *ON24* founder Sharat Sharan.

"Think about all those savings from hotel rooms to airfares for attendees to meals and conference space. One of our biggest technology clients had a sales meeting earlier this year where they generally spend $5m (£3.2m). They spent a tenth of that by holding a virtual conference", Mr Sharat told *BBC News*.

"Next Generation"

Second Life is one of the best known names in the world of virtual reality but the companies that flocked there to set up businesses and storefronts had very limited success.

Two years ago *Second Life* created an enterprise group to better cater to business and has over 1,400 organisations as users.

ON24 has over 750 clients from *Fortune 500* companies but made its name as a webcasting company following the dot.com implosion and the terrorist attacks in New York and Washington.

"What is going on in the virtual conference market is not unlike the downturn in 2001 and the 9/11 attacks when web meetings became the big thing because no one wanted to fly and companies were cutting budgets".

Now both *Second Life* and *ON24*, along with *Unisfair*, are forging ahead in developing virtual-meetings software aimed at recreating the real trade show or conference experience.

Attendees check in and get their "goody bag" full of virtual goods and brochures that they can look at anytime. There are show booths to attend where participants can download company information, watch demonstrations or chat online to sales reps.

Conference goers can also attend keynote sessions, submit questions live for real-time answers and listen to lectures on podcast and PowerPoint presentation all without packing a suitcase or breaking a sweat to catch a flight.

There are also facilities for virtual networking.

Another benefit, said the companies, is the ability to know exactly who has come to your booth, how long they stayed, what products interested them and what questions they asked. This data makes follow up conversations more productive.

"It is just a matter of time before the virtual events world and the trade show world merge to create the next generation of events — a hybrid of the old and the new", said Miroslaw Nowak of *Market Research Media*.

ON24's Mr Sharat agreed.

"Businesses are getting more and more comfortable with the virtual world. Their customers, employees and partners are already living in that environment thanks to social networks and even email. The need for face-to-face meetings is always going to exist — however, you will see a lot more virtual interactions", he said.

Replacement

One industry that is dipping its toe into the virtual world is that of the car show. Later this year *AutoWeek* magazine will stage what it said is the world's first virtual green car show.