

ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ОБРАЗОВАНИЮ  
ГОСУДАРСТВЕННОЕ ОБРАЗОВАТЕЛЬНОЕ  
УЧРЕЖДЕНИЕ  
ВЫСШЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ  
«ВОРОНЕЖСКИЙ ГОСУДАРСТВЕННЫЙ  
УНИВЕРСИТЕТ»

**ПРАКТИКУМ ПО ЧТЕНИЮ  
ПО АНГЛИЙСКОМУ ЯЗЫКУ**

Учебно-методическое пособие для вузов

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9. Why did people's lives change radically and rapidly?
10. What were books for people?
11. What has the printed page been for the propagation of ideas?
12. When have the astonishing achievements in computer science begun to enter our lives?
13. What terms were unknown to most people only ten years ago?
14. What single idea did the overwhelming majority of the people subscribe to thirty years ago?
15. What was computer technology believed to be (thirty years ago)?
16. Who shared the dissenting point of view?
17. What vision did the dissenters share?
18. What was the point of view off those who questioned the dogma of data processing? What did they wonder about?
19. What did these heretical computer theorists propose?
20. What did the minority of scientists and engineers insist on?

### ***III. Topics for discussion:***

1. A new medium for human thought.
2. Books were vehicles by which the ideas circulated among the *population*.
3. Personal computing was an obscure heresy.

### ***IV. Choose one of the following topics and write a composition (150-200 words):***

The printed page was a medium for the propagation of ideas.  
Astonishing achievements in computer science.

### ***V. Prepare your own presentation developing one of the ideas from the text.***

#### ***Words to learn:***

Amplify; augment; availability; awe; calculate; communication medium; data; device; descendant; dissenter; emerge; empower; enhance; fragile; heresy; impact; ken; minority; obscure; outcome; pattern; sophisticated; speculate; startling; subscribe; substantial; suspect; tinker; toolkit; vehicle.

Благоговейный страх; воздействие; появляться; вычислять; информация; доступность; ересь; кругозор; ремесленник; меньшинство; набор инструментов; непонятный; узор; подозревать; подписываться; поток; размышлять; результат; среда общения; средство выражения и распространения (мыслей); существенный; прибавлять; усиливать; потрясающий; уполномочивать; увеличивать; усложненный; устройство; хрупкий; всегда имеющий свое особое мнение человек.

## Unit 2

### THE FUTURE OF COMPUTER TECHNOLOGY

#### ***I. Read aloud the following words and expressions, give their meanings:***

Focus, dedicate, patriarch, domain, tangible, pivotal, evolve, transistor, circuit, vast, significant, deception, burden, scenario.

#### ***II. Read the text and answer the questions following it:***

Let us focus on the ideas of a few of the people who have been instrumental in creating yesterday's, today's, and tomorrow's human-computer technology. Several key figures in the history of computation lived and died centuries or decades ago. We call these people, renowned in scientific circles but less known to the public, the *patriarchs*. Other co-creators of personal computer technology are still at work today, continuing to explore the frontiers of mind-machine interaction. I call them the *pioneers*.

The youngest generation, the ones who are exploring the cognitive domains we will all soon experience, we call the *Infonauts*. It is too early to tell what history will think of the newer ideas, but we're going to take a look at some of the things the latest inner-space explorers are thinking, in hopes of catching some clues to what (and how) everybody will be thinking in the near future.

As we shall see, the future limits of this technology are not in the hardware but in our minds. The digital computer is based upon a theoretical discovery known as "*the universal machine*" which is not actually a tangible device but a mathematical description of a machine capable of simulating the actions of any other machine. Once you have created a general-purpose machine that can imitate any other machine, the future development of the tool depends only on what tasks you can think to do with it. For the immediate future, the issue of whether machines can become intelligent is less important than learning to deal with a device that can become whatever we clearly imagine it to be.

The pivotal difference between today's personal computers and tomorrow's intelligent devices will have less to do with their hardware than their *software* — the instructions people create to control the operations of the computing machinery. A program is what tells the general-purpose machine to imitate a specific kind of machine. Just as the hardware basis for computing has evolved from relays to vacuum tubes to transistors to integrated circuits, the programs have evolved as well. *When information processing grows into knowledge processing, the true personal computer will reach beyond hardware and connect with a vaster source of power than that of electronic micro circuitry — the power of human minds working in concert.*

The nature of the world we create in the closing years of the twentieth century will be determined to a significant degree by our attitudes toward this new category of tool. Many of us who were educated in the pre-computer era shall be learning new skills. The college class of 1999 is already on its way. It is important that we realize today that those skills of tomorrow will have little to do with how to operate

computers and a great deal to do with how to use augmented intellects, enhanced communications, and amplified imaginations.

Forget about "computer literacy" or obfuscating technical jargon, for these aberrations will disappear when the machines and their programs grow more intelligent. The reason for building a personal computer in the first place was to enable people to do what people do best by using machines to do what machines do best. Many people are afraid of today's computers because they have been told that these machines are smarter than they are — a deception that is reinforced by the rituals that novices have been forced to undergo in order to use computers. In fact, *the burden of communication should be on the machine. A computer that is difficult to use is a computer that's too dumb to understand what you want.*

If the predictions of some of the people in this book continue to be accurate, our whole environment will suddenly take on a kind of intelligence of its own sometime between now and the turn of the century. Fifteen years from now, there will be a microchip in your telephone receiver with more computing power than all the technology the Defense Department can buy today. All the written knowledge in the world will be one of the items to be found in every schoolchild's pocket.

*The computer of the twenty-first century will be everywhere*, for better or for worse, and a more appropriate prophet than Orwell for this eventuality might well be Marshall McLuhan. If McLuhan was right about the medium being the message, what will it mean when the entire environment becomes the medium? If such development does occur as predicted, it will probably turn out differently from even the wildest "computerized household" scenarios of the recent past.

The possibility of accurately predicting the social impact of any new technology is questionable, to say the least. At the beginning of the twentieth century, it was impossible for average people or even the most knowledgeable scientists to envision what life would be like for their grandchildren, who we now know would sit down in front of little boxes and watch events happening at that moment on the other side of the world.

Today, only a few people are thinking seriously about what to do with a living room wall that can tell you anything you want to know, simulate anything you want to see, connect you with any person or group of people you want to communicate with, and even help you find out what it is when you aren't entirely sure. In the 1990s it might be possible for people to "think as no human being has ever thought" and for computers to "process data in a way not approached by the information-handling machines we know today," as *J.C.R. Licklider*, one of the most influential pioneers, predicted in 1960, a quarter of a century before the hardware would begin to catch up with his ideas.

### ***Questions to answer:***

1. Whom do we call patriarchs?
2. Which people do we call pioneers?
3. Whom do we call the infonauts?