Intermediate 3
Unit 6: Reading
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Computers Make the World Smaller and Smarter

smart = intelligent

The ability of tiny computing devices to control complex operations has transformed the way many tasks are performed, ranging from scientific research to producing consumer products. Tiny "computers on a chip" are used in medical equipment, home appliances, cars and toys. Workers use handheld computing devices to collect data at a customer site, to generate forms, to control inventories, and to serve as desktop organizers.

tiny = very small

compute = calculate
computation = calculation
computer = computing device

device = gadget, machine
complex = complicated ≠ simple
transform = change
task = job
ranging from X to Y = including X and Y

microchip = a tiny computer on a chip

Point:
The word "equipment" is uncountable in English.

equipment = tools

Example:

Don't Say: We need two equipments.
Say: We need two pieces of equipment.
Say: We need some equipment.
Say: We need two tools.

home appliances = devices like the refrigerator, the washing machine, the freezer, the dishwasher, the juicer, etc. used at home

handheld = that can be held in the hand

Point:
Normally we don't add -s to "data".

site = place, location
generate = produce
inventory = list
desktop organizer = a device with a calendar and a clock that reminds you of your future tasks, meetings, and appointments

These smart machines are designed to take over some of the basic tasks previously performed by people; by so doing, they make life a little easier and a little more pleasant. Smart cards store vital information such as health records, driver's licenses, bank balances, and so on. Smart phones, cars, and appliances with built-in computers can be programmed to better meet individual needs. A smart house has a built-in monitoring system that can turn lights on and off, open and close windows, operate the oven, and more.

take over = adopt
previously = formerly

pleasant = enjoyable

store (v.) = save
vital = necessary, important
such as = like, for example
record = document
health records = medical documents
driver's license (American) = **driving license** (British)
balance = a document showing how much money has been deposited in your bank account or withdrawn from it.
and so on = and so forth = etc.
built-in = internal; existing inside sth

program (v.) = to write codes which enable a computer to perform a task
program (n.) = a computer application
programmer (n.) = a person who writes computer programs

meet = satisfy
individual = related to only one person
monitor = watch, supervise

With small computing devices available for performing smart tasks like cooking dinner, programming the VCR, and controlling the flow of information in an organization, people are able to spend more time doing what they often do best—being creative. Computers can help people work more creatively.

available = on hand ≠ unavailable
VCR = video cassette recorder
flow = movement, circulation
organization = a group of people who work together in an organized way for a shared purpose
creativity (n.) = the ability to produce or use original and unusual ideas
creative (adj.) = showing creativity
creatively (adv.) = in a creative manner

Multimedia systems are known for their educational and entertainment value, which we call "edutainment". Multimedia combines text with sound, video, animation, and graphics, which greatly enhances the interaction between user and machine and can make information more interesting and appealing to people.

multimedia = the combination of text, images, audio files, & video files
value = how much something is worth

edutainment = education + entertainment
entertainment = amusement, fun
education = teaching and learning

combine = put together
enhance = improve
interaction = mutual relationship
appealing = attractive, interesting

Expert systems software enables computers to "think" like experts. Medical diagnosis expert systems, for example, can help doctors pinpoint a patient's illness, suggest further tests, and prescribe appropriate drugs.

software ≠ hardware
software = the instructions that control what a computer does; computer programs
hardware = the physical and electronic parts of a computer, rather than the instructions it follows
diagnosis = identifying a disease
pinpoint = identify; recognize
further = more, additional
prescribe = (of a doctor) to say what medical treatment someone should have

Connectivity enables computers and software that might otherwise be incompatible to communicate and to share resources. Now that computers are proliferating in many areas and networks are available for people to access data and communicate with others, personal computers are becoming interpersonal PCs. They have the potential to significantly improve the way we relate to each other. Many people today telecommute, that is, use their computers to stay in touch with the office while they are working at home. With the proper tools, hospital staff can get a diagnosis from a medical expert hundreds of thousands of miles away.

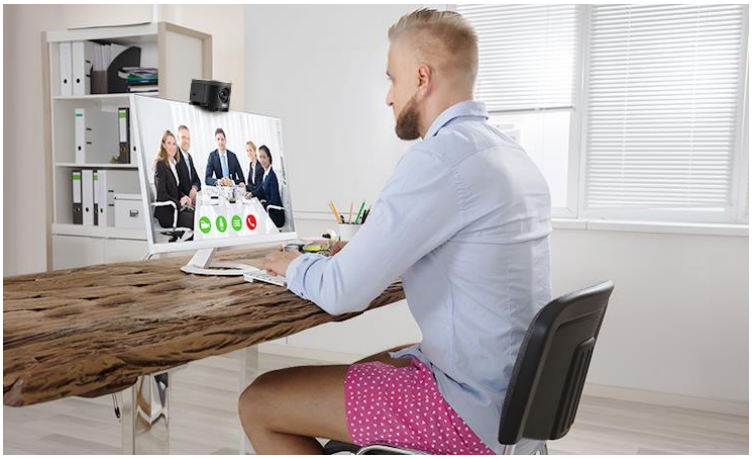
connectivity = being connected to a network

enable = make able
otherwise = if not so
compatible (adj.) = able to be used with a particular type of computer, machine, device, etc.
compatibility (n.) = being compatible
incompatible (adj.) = not compatible
proliferate = increase in number and quantity
access = have access to
pc = personal computer

Networks:
LAN = Local Area Network = Intranet
WAN = World Area Network = Internet

interpersonal = shared among people
potential = possibility
significantly = importantly
telecommute = work at home for a distant workplace

Similarly, the disabled can communicate more effectively with others using computers. Distance learning and videoconferencing are concepts made possible with the use of an electronic classroom or boardroom accessible to people in remote locations. Vast databases of information are currently available to the users of the Internet, all of whom can send e-mail messages to each other. The information superhighway is designed to significantly expand this interactive connectivity so that people all over the world will have free access to all these resources.



A man who is telecommuting!!!

that is = it means that

similarly = likewise
the disabled = the handicapped people
concept = idea
remote = far, distant
vast = extensive
currently = at the moment
expand = develop

People power is critical to ensuring that hardware, software, and connectivity are effectively integrated in a socially responsible way. People — computer users and computer professionals — are the ones who will decide which hardware, software, and networks endure and how great an impact they will have on our lives. Ultimately people power must be exercised to ensure that computers are used not only efficiently but in a socially responsible way.

critical = necessary, important
integrate = put together; combine
endure = last; continue
ultimately = finally
efficiently = effectively

Full Text:

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Sample Summary:
Tiny computers have revolutionized many tasks, from scientific research to everyday chores, by taking over basic tasks and making life easier. They are used in medical devices, home appliances, cars, and toys. Smart devices like phones, cards, and homes can store important information and be programmed to meet individual needs. This allows people to be more creative and productive. Multimedia systems enhance learning and entertainment, while expert systems help professionals like doctors. Connectivity allows computers to communicate and share resources, improving how we work and interact. Telecommuting, distance learning, and vast online databases are now possible, making information and communication more accessible. Ultimately, people must ensure that computers are used responsibly and effectively.

Sample Summary (Simple Version):
Tiny computers have changed many tasks, making them easier. They are used in medical devices, home appliances, cars, and toys. Smart devices like phones, cards, and homes can store important information and be programmed to meet personal needs. This helps people be more creative and productive. Multimedia systems make learning and entertainment better. Expert systems help professionals like doctors. Computers can now interact with each other and share resources, improving work and communication. Telecommuting, distance learning, and online databases are now possible, making information and communication easier. People must ensure computers are used responsibly and effectively.

Source:
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