

## 6.6 Read and translate the text.

### THE ROLE OF COMPUTER NETWORKS IN EDUCATION

One can hardly contest the great role of computers and networks in education at present but a few decades ago it wasn't. The use of networks to connect computers was at first confined to the large institutions that could afford massive mainframe computers. Access to this technology broadened when a company named CompuServe installed a packet-switching network and computing capacity so that it could offer remote computing services to firms without mainframes. Seizing on the popularization of the increasingly affordable PC, CompuServe then applied the technological capacity it had installed to services designed for private individuals and smaller firms wishing to use their PCs to communicate.

Today, almost every student and teacher of our university has at the command all opportunities of the computers and computer networks. The best example of computer network at EKSTU is the Model of Innovative Higher Education Institution "University -Techno park Altay".

"Altay" Regional Scientific and Technological Park was established in April, 2004 on the basis of D. Serikbayev EKSTU Innovation and New Technologies Center according to the decree of East Kazakhstan Akimat. The establishers are D. Serikbayev EKSTU and the Oblast Akimat. The infrastructure of "Altay" Technopark: total area is approximately 6,000 sq.m.; 24 laboratories and innovative firms; patent –information subdivision; business center; internet center; exhibition halls; specialized audio and video halls; conference halls; modern telecommunication systems, working areas. This educational complex has the model of integrating education, science and manufacturing. The guiding principle of university transformation is innovative education.

Students have always had to come to where the teachers are. Now, technology can take the teacher to the student. In the last few years, distance learning via computer has taken off exponentially, growth of the Internet. Our university is keeping up with the times: the university system has been adding distance learning to its traditional classroom instruction. Today only 5 percent of students take courses at distance from 3 percent of several years ago, but we hope that it is the matter of time.

In the most common form of distance learning, satellite or cable wires send images of instructors, as they are teaching, to groups of students gathered in front of their computers, often at local high schools or at home. Distance learning site is connected by telephone line—routed for the most part through loudspeakers—to the instructors, so that any student anywhere can ask a question or take part in a discussion, and the instructor's comments can be heard by all. Another opportunity of distances learning is asynchronization of studying process: some disciplines students can take and pass sitting at home. When students wish, they can log on and download and start learning. Some disciplines are fixed then coordinators of the site organize the classrooms, give out and receive assignments, and administer examinations. It is remarkable, that our students are not only from Kazakhstan but people from other states.

The university has its own virtual representative office in the information-educational environment of Federal educational portal "Russian Portal of Open Education". Grade-rating system was introduced to evaluate the quality level and students' knowledge control. Students' progress is stored in the form of electronic base and operated in the automated system of current, intermediate and final control of the students' knowledge. Educational process and monitoring of the students' knowledge is done on the principle of division of training and controlling function. Scientific-methodological center on tests development and the department of test function at the university. Rating system of faculty, departments' and sub-departments' work evaluation was introduced. It stimulates faculty's labor efficiency.

Another example of successful introduction of computer networks at EKSTU is the system messenger "The Bat". This program is used to exchange by e- messages and attach

necessary files and documents. “The Bat” makes the working process easier, formation sent by you will be received in a few seconds, and receiver will react to your message immediately.

The scientific library of EKSTU actively uses modern technologies in all directions of activity and seeks to maintain the high status of innovative university. The library is the first university library of the region realizing RFID-technologies of readers’ service and technologies of bar coding including the program of distant service. The inner service including electronic catalogue is realized with the help of “Irbis” system. It is one of the most perfect library information systems.

6.7 Answer the questions:

1. Could small firms and private individuals afford to have their own computer network?
2. What company could solve the problem of expensive network and lack of massive mainframe and how it was done?
3. What is Regional Scientific and Technological Park « Altay »?
4. What infrastructure does it have?
5. What is distance learning and its advantages and disadvantages?
6. Do the classes have synchronization?
7. What is percent of students take distance learning course? What do you think the problem is?
8. What was grade rating system organized for?
9. What innovative technologies does our library use?
10. Now can you tell what role computer networks play in studying process at EKSTU?

6.8 Complete the sentences from the text:

1. Altay Regional Scientific and Technological Park was established\_\_\_\_\_.
2. In the most common form of distance learning \_\_\_\_\_.
3. Grade rating system was introduced\_\_\_\_\_.
4. The scientific library of the EKSTU actively\_\_\_\_\_.
5. The inner service including electronic catalogue is\_\_\_\_\_.

6.9. Agree or disagree with the statements below using the following phrase:

agreement	disagreement
I completely agree with you	I can't agree with you
I am with you on this point	This is here my point of view differs
That's it	I completely disagree
I think so	I don't think so
You are right here	I am afraid you are mistaken
That's true	You are not right here

1. Access to computer network technology broadened when a company named CompuServe installed a packet-switching network.
2. “The Bat” system is used in the library of EKSTU to help students to find necessary materials in electronic catalogue.
3. Do you agree that distance learning is easier to get than traditional form?

4. Grade rating system is introduced to evaluate the quality level and students' knowledge control.
5. Do you agree that Regional Scientific and Technological Park "Altay" plays great role in system of education of EKSTU? Support your opinion.

Translate the phrases into English:

Опровергнуть мнение, ограничивать возможность, расширять границы, информационно-образовательная среда, доступ к технологии, инновационный и научно-технологический центр, частные собственники и малые фирмы, согласно постановления областного Акимата, патентно-информационные подразделения, бизнес центр, конференц-залы, производственные территории, модель интегрированного образования, наука и производство, спутниковые или кабельные провода, сайт дистанционного обучения, трасса линии электропередачи, принимать участие в дискуссии, примечательно, «Российский Портал Открытого Образования», принцип разделения обучения и контроля, научно-методологический центр, внутренний сервис, оценка работы факультетов и кафедр, реализовать с помощью системы «Ирбис», стимулировать результативность работы факультета.

6.11 Translate into English:

Технопарк основан 31 октября 2008 года на базе ТОО «Региональный научно-технологический парк «Алтай», созданного ранее по инициативе Восточно-Казахстанского Государственного Технического Университета им. Д.Серикбаева (далее – ВКГТУ) и акимата ВКО.

Задачи технопарка:

- 1) развитие малого и среднего инновационного предпринимательства;
- 2) укрепление связи науки с производством, интеграция субъектов интеллектуального труда с предпринимательской средой и финансовым сектором;
- 3) предоставление материально-технической базы, включая предоставление доступа к услугам инженерно-конструкторских, производственных и лабораторных подразделений и к другим объектам,
- 4) представление интересов субъектов инновационной деятельности, осуществляющих деятельность на территории технопарка, в отношениях с государственными органами;
- 5) эксплуатационное обслуживание инфраструктурных ресурсов, оказание услуг субъектам инновационной деятельности, осуществляющим деятельность на территории технопарка;
- 6) оказание содействия в приобретении инновационных технологий и обмене информацией между научно-исследовательскими организациями, организациями образования и другими субъектами инновационной деятельности, осуществляющими деятельность на территории технопарка;
- 7) формирование и разработка идей, содействующих научно-техническому прогрессу;
- 8) содействие в подготовке и переподготовке профессиональных кадров в области инновационных производств.

В перспективе создание еще двух лабораторий – «Новые конструкционные материалы» и «Материаловедения», а также оснащение необходимым оборудованием лаборатории «Эксплуатационная надежность автомобильных дорог». Лаборатории технопарка работают по принципу самоокупаемости, научные сотрудники лабораторий сформированы в основном из профессорско-преподавательского состава ВКГТУ.