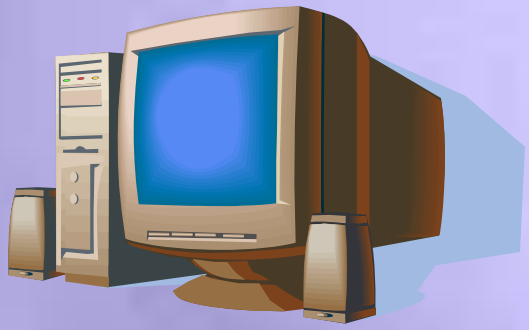

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РЕПОЗИТОРИЙ БГПУ

Information and communication technologies in special education and their role in improving the quality of life of a child with special needs

Pedagogical technology

Technical facilities learning (TFL)

Informational educational technology (IET)

Computer pedagogical technology

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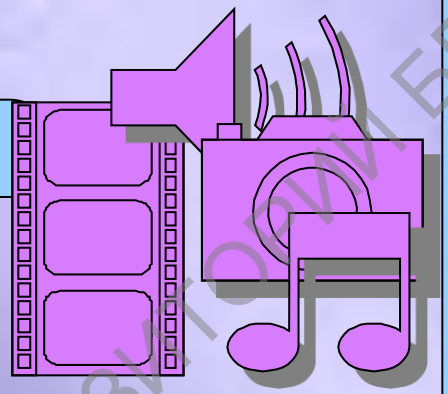
Information and communication technology learning

set of techniques, methods, forms of education based on information technology tools (computers, cinema, audio and video equipment, telecommunication networks)



creating favorable conditions for teachers and students for free access to cultural, educational and scientific information

Informatization of education:

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Varieties of the use of computer pedagogical technologies in the learning process :

- *texts on electronic media;*
- *electronic textbooks and reference systems;*
- *computer models and demonstrations;*
- *electronic laboratory workshops;*
- *electronic educational and methodical complexes;*
- *training programs;*
- *computer testing programs;*
- *Internet resources;*
- *remote methods based on the use of Web servers and e-mail;*
- *multimedia presentations based on projection technology*

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The benefits of implementing information technology in the educational process

For students with special needs

- access to information in the adapted, most convenient form;
- implementation of the process of communication and interaction;
- modification of activity through increasing motivation to study;
- creation of conditions for more effective independent work, creativity, acquisition and consolidation of various professional knowledge and skills.

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The benefits of implementing information technology in the educational process

For teachers

- implementation of fundamentally new methods and forms of education;
- use of new approaches to the organization of the learning process;
- improving the quality of learning through better use of available information;
- increasing the efficiency of the educational process on the basis of its individualization and intensification;
- the achievement of the required level of professionalism in mastering the means of computer science and computer technology;
- increasing the professional competence and competitiveness of future specialists in various industries.

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Areas of using information and communication technologies in special education

- ICT for solving compensatory tasks;
- ICT for solving didactic tasks;
- ICT for solving communication problems.

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Assistive technology for students with movement disorders

Special devices	Software
▪Special keyboards (reduced, enlarged, with touch pads) ▪Trackball Manipulator ▪Joystick ▪Electronic Positioning Devices ▪Touch screen ▪Microphone	▪ Keyboard setup ▪Manage operating system functions and enter text using voice. ▪Predicting and completing words as you type text from the keyboard. ▪Virtual keyboard

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Computer buttons, control

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Touch keypads

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Keyboards are special

Large keyboard with integrated and remote keys with a numeric keypad

Split keyboard

Keyboard for left-handed use

Small keyboard on a tripod

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Mice and joysticks special

Foot mouse

Head mouse

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Assistive Technology for Students with Language and Speech Disabilities

Special devices	Software
Auxiliary communicative sound device (Voice Output Communication Aid; VOCA)	▪Predicting and completing a word when entering text from the keyboard; ▪Verification of the text and correction of errors in it; ▪Formatting and replacing textual information

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Communicators

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ZYGO
Talara-32
monkeys
rabbits
zebras
lizards
dolphins
I like
spiders
jelly fish
snakes
spy-crew
fox
mice
fish
hamster
parrot
sharks
tigers
I'm scared
cat
dog
I've seen
whale
kangaroo
lion
dinosaur
ostrich
I've not seen

РЕПОЗИТОРИЙ БГПУ

Assistive Technology for Visually Impaired Students

Special devices	Software
▪Braille display ▪Braille printer for printing in relief-dot typeface ▪Reading machine ▪Closed Circuit TeleVision (CCTV) magnification systems	▪Support of the display in the operating system ▪Text processing for printing in relief-point font. ▪Voice Access Programs (screen readers) ▪Enlarging and adjusting the image on the screen

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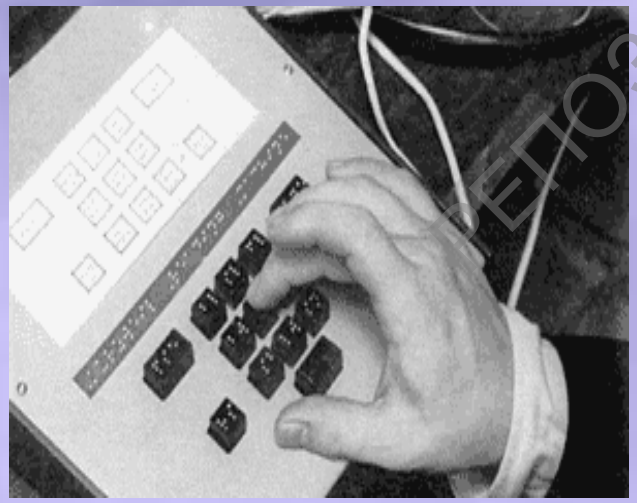
Braille line



Computer without monitor

Computer with keyboard for the blind

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Electronic magnifying devices

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Electronic notebooks

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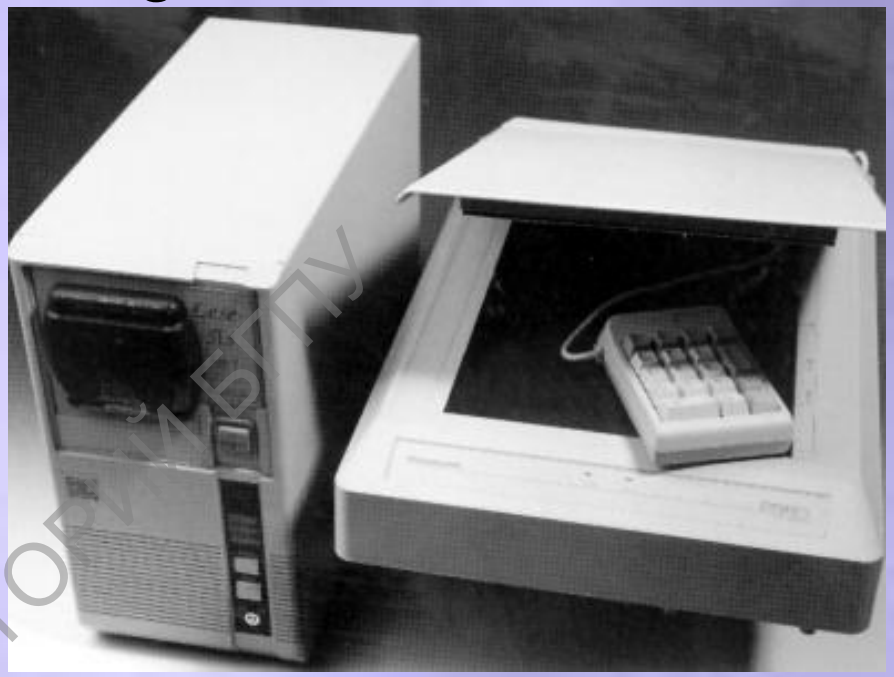
Electronic reading machines



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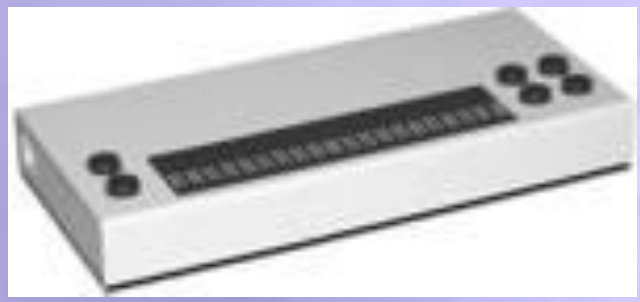
Braille displays



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Braille printe

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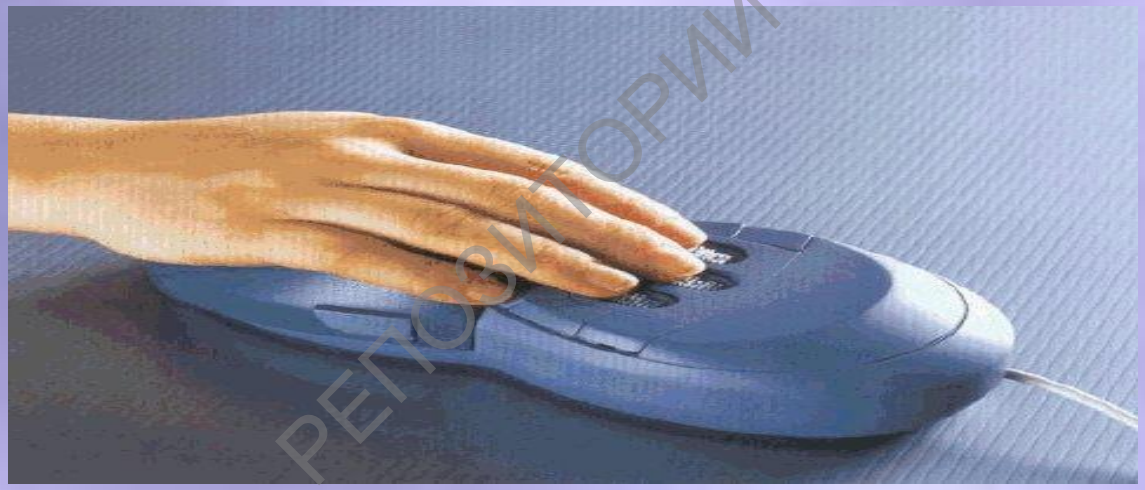
Computer mouse for the blind



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Large programmable keyboard

Assistive Technology for Students with Hearing Impairment

Special devices	Software
Stationary sound-amplifying wired and wireless equipment for collective use (multi-frequency FM-systems)	▪ A message to the user about events occurring in the system or application by issuing text or graphic messages on the screen ▪ The implementation of simultaneous translation of oral speech in writing (presented on the monitor screen)

РЕПОЗИТОРИЙ БГПУ

Assistive technology for students with intellectual disabilities and learning difficulties

Special devices	Software
▪ Special keyboards (alternative, lightweight, touch) ▪ Trackball Manipulator ▪ Touch screen ▪ Electronic calculators, dictionaries and encyclopedias	▪ Predicting and completing a word as you type from the keyboard ▪ Verification of the text and correction of errors in it ▪ Computer voice control and text input ▪ Compilation of mind maps and work plans ▪ Correctional and educational programs aimed at the development of reading technology

РЕПОЗИТОРИЙ БГПУ

Touchscreen and keyboard

РЕПОЗИТОРИЙ БГПУ

Manipulators

Joystick

Scooter

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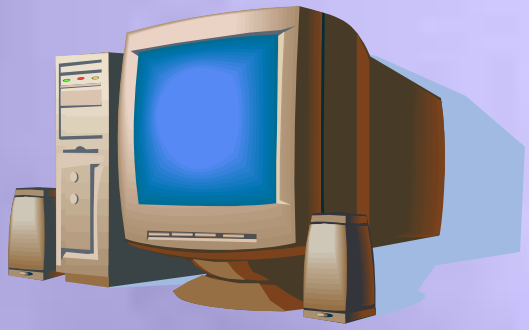

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