Good research paper about technology and education (special education)

Technology, Development

Education as a social phenomenon determines the development of human civilization, its progress or regress. The education system is a part of society, so society determines the objectives, content, form, and the whole concept of education; while at the same time affect its development. Currently, world focuses on the consistency of the educational and socio-economic development concepts (Anderson, Anderson, & Cherup, 2009). The observed global trend of sharp increase in the role of human factors in the development of post-industrial, information civilization, as well as national needs of society, the modernization and gradual integration into a single global community, make new, much higher demands on the person as an active and conscious subject of public, creative and transformative practice. Accordingly, this also increases the requirements for the quality of education (Martin, 2006).

The issue of using modern technologies and network resources for education of people with disabilities is very multifaceted. For people with different categories of physical limitations apply different techniques, different methods of teaching.

When creating a computer and computer technology not had, the task of adapting them for use is disabled. However, people with disabilities are actively involved in the development of these technologies, seeing them as a means for their integration into society, to improve their professional, educational and cultural level. For example, according to many blind users' computers needs blinder than a cane. In addition, it is quite true because with the advent of the Internet expands opportunities in communication, and education (Collins & Halverson, 2010).

However, if a normal user without disabilities communicates with a computer and uses its capabilities directly, then any user with a disability requires special adaptive technology. A user with a disability, in the end, uses the same technology as a normal user, but indirectly intermediary is adaptive technology (Anderson, Anderson, & Cherup, 2009).

Developing computer and information technology, the Internet evolved. Today we can say that the computer and the Internet technology are firmly entrenched in our lives, including in the educational process. Following the general techniques developed and software and technical tools that allow people to make more efficient use of computer and information technology for special education students (Collins & Halverson, 2010). However, unfortunately, I must say that adaptive technology today behind common technologies, which imposes certain restrictions on the use of resources for special education students. The development of adaptive technologies has huge results, and there are positive trends in how adaptive technologies and specialized resources for special education are important useful.

Development of education using the Internet can contribute to technical tools, technologies and resources. Special technical means include tactile displays for visually impaired users, various modifications of keyboards and keypads for people with disorders of the musculoskeletal system for people with hearing and speech, and others. Their purpose is to provide the user with the most effective possibility of special education work independently on the computer. Their implementation depends on level of availability (Anderson, Anderson, & Cherup, 2009).

Much organizations of the education system are on the path to facilitate

persons with disabilities access to educational resources. The current structure of the Education for disabled is equipped with modern multimedia computers connected in a local network and has access to the global Internet. To date, the laboratory has a large number of educational multimedia (combine the text, graphics, illustration, computer animation, audio and video) programs for students. Working with a computer " tutors", the entrant can test their knowledge of the rules, to fill the gaps, perform computer dictation exercises do work on the bugs. Practice shows that even a few of these studies help to reduce the number of errors (Raskind, Smedley & Higgins, 2005).

If we talk about experience in the US, for example, active organizations that are not directly engaged in the development of special technical equipment and information technology, but collect all the existing adaptive technology, and general technology to develop the possibilities of their application for the learning disabled (Collins & Halverson, 2010). These organizations are in contact with the developers and manufacturers of specialized and standard hardware and software develop recommendations for them, looking for new opportunities for the application of special developments. Thanks to the tremendous work done by such organizations, large conventional software developers provide for the use of adaptive technology. For example, Microsoft has developed its speech synthesizer and has provided its use in the new versions of the operating system Windows (Howard & Busch, 1991). The peculiarity is that the priority to determine the direction of adaptation of computer technology specifically for the visually impaired. It is caused primarily activity and organization of this category of persons with

disabilities, the value (weight) of public organizations, and the existence of state-supported special libraries for the blind. Look for opportunities for practical application of special developments.

History of the use of Internet resources by users with severe visual impairments is almost as long as there is the Internet itself. Adaptation of software and hardware for the needs of blind and visually impaired users ran parallel to the development of a global network. The widespread use of the internet visually impaired began in the mid-90s. Common strategy in the development of this area has not been and there is still so initiators of collective access to the resources of the global network are the computer center.

Software that allows the visually impaired to work on the Internet is very expensive, but because little is available not only to the individual, but also many collective users. Technically, this software is not perfect, as still leaves inaccessible to blind users schedule and number of sites. Because of the absence of the concept of information of special education and access to the Internet for people with disability has not developed a single system, and there are scattered centers in various organizational forms that have no connection with each other, overlapping and " reinvent the wheel". This is prevented by the high cost of licensed software and road traffic. Distance learning is particularly suitable for the disabled, in addition to having the blindness and other disorders, such as motor, but most of the courses available to blind, as not adapted to work with software for speech synthesis. It should be noted that distance learning is convenient for all categories of disabled persons as it allows people with disabilities, without leaving home,

getting courses of training materials on their chosen topic. In this case, students may well take advantage of existing technologies of distance learning courses without adaptation.

People with visual impairments, in relation to learning distance courses can be differentiated by the presence of the residue of them: 1) to visually impaired with significant remnant of the users of screen magnification, 2) and on people with low vision and totally residue blind, that is, those that can only use the speech screen reader programs. Adaptation of distance learning courses for the visually impaired may lie in the fact that the course materials should be typed in large print. Chance of a number of design decisions makes it easier to work with course programs using Screen magnification (Raskind, Smedley & Higgins, 2005). Theoretically, you can easily adapt any training material on any topic for his visually impaired using conventional electronic magnifier (Peters & Araya, 2011).

Somewhat different is the situation for the very blind and people with small remnants of which can use a computer, using only speech screen reader program. The fact is that these programs can work effectively with the text and hypertext links. This raises two important points. First of all the electron shells are used in distance education that have graphical navigation and unsuitable for use with the help of voice synthesizers. If you plan on course training people with visual impairments, it is necessary to choose or develop electronic shell with text navigation. However, it is possible to successfully replace training in using the electron shell of training email. One can distribute educational materials and test items, also accept completed assignments by electronic messages and file attachments. Performance of

tasks taken into account in the magazine, which is also, conducted in electronic format MS Word or MS Excel. Students to communicate with each other and brainstorming discussion questions, you can create email newsletter (Peters & Araya, 2011). Secondly, even theoretically not all training materials could be adapted for use in a speech synthesizer. For example, courses on any design or photos can not be described solely in text format (Martin, 2006). For many technical and humanitarian disciplines may text description of tables and charts

Despite the fact that the use of Internet technology and web resources for people with learning difficulties, there are certain, we can still say with confidence that the internet is a very flexible environment, with environment friendly, allows you to erase the line between ordinary people and people with impaired health. Evolving technology, both ordinary and special adaptive. Today we can say with confidence: in the use of the Internet for people with learning disability is great prospects.

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