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Inclusive Education through Technology

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Abstract: Technology assists students with disabilities to be included in education by permitting them to get beyond some of the challenges that keep them out. Technology supports other in-person approaches and resources, such as inclusive teaching and preparation for teachers. In this article, we will examine several software solutions that can help people with disabilities learn more easily and discuss how technology can make the educational process easier for such individuals.

Introduction -

We are currently seeing borders slowly disappear in the modern world. Politics and business are not the only aspects of this process. Today, practically everyone can access medical or academic resources anywhere in the world, regardless of their citizenship or physical condition. Numerous specialized commissions work to create laws and norms to control these interactions between individuals and global organizations. In accordance with educational standards, chances for disabled pupils to reach their full potential should be made available. They must be treated equally with pupils who do not have disabilities and must be allowed to participate in training and education without facing any barriers. Digital technologies are now widely available and offer students new prospects as a result of the IT industry's development and widespread are widely used, enabling the use of them to offer new options to students.

Here are some ways that technology can make the educational process easier for those with impairments .[1]

Students with Special Requirements Advantages of Recent Technology -

The Individuals with Disabilities Education Act (IDEA), which was passed in 2001, provided educational services to 6.7 million children in the United States in 2015–2016, according to the National Center for Education Statistics. 13% of all kids in public schools fall under this category. The overall number of these students has increased by 0.3 million during 2011–2012, despite the fact that the percentage has stayed relatively constant over the past few years. The website of the National Center for Educational Statistics displays the percentage distribution of the various categories of disability.

According to these figures, there isn't a single

technological solution that could meet the needs of all pupils with special needs. The adoption of specialized solutions created in accordance with the needs of a particular group of students can ensure the best results possible due to the wide variety of disabilities.

A specific student can become more independent thanks to special technology, which relieves him of the need for ongoing teacher participation. As a consequence of this, a student can select the learning pace that works best for him, resulting in more individualized instruction. When a student doesn't impede the learning of the entire class, it allows for a decrease in anxiety, which is important for education as well. Technology integration in special education programs enables communication simplification and academic skill improvement among learners with disabilities .[2]

The following benefits of technology use in special education are listed by Edmentum, a business with extensive experience in the development of eLearning solutions:

"Technology supports the addition of individual learning experiences to a classroom, allowing teachers to be more flexible and differentiate their education. Teachers can utilize technology to provide a range of educational possibilities and techniques that engage, educate, and support children in special education using a number of strategies made to appeal to different types of learners. Students are no longer confined to an unfamiliar classroom while attempting to study at a rate they are unable to maintain up with or participate in."

A key viewpoint is shared by Power School, another leader in the creation of e-learning solutions:

"Technology can assist school employees in achieving the IEP compliance required by state and

federal regulations, as well as ensure that sufficient and timely financing is obtained. In order to maximize compensation, special management of education solutions may ensure that the right support is not only provided to all eligible instances, but also monitored as well as reported on.

With suitable technology, educators are able to produce and maintain complying, high-quality special education papers utilizing logically guiding actions and business rules that are in line with the IDEA as well as additional state and federal requirements. Reporting capabilities can be used to manage compliance by identifying timetables, which instructors are on schedule, and which teachers have gotten ahead. Additionally, technology can assist instructors in generating mandatory statewide and district reports and, if permitted, sending data directly to the appropriate governmental entities.''

Let's move on from generic terms to something more precise.

Breaking Barriers Through the Application of Technology in Special Education -

Technology can benefit special needs students in a variety of ways. For instance, some infirmities prevent pupils from using handwritten text, which is essential to "traditional" teaching. You can skip using paper and a pen during the instruction by using technological tools designed to facilitate human speech identification and synthesizing. Students with diseases that make it difficult for them to properly interpret visual information might also benefit from this technology.

Adaptive computing technology enables the avoidance of difficult tasks when utilizing digital equipment. Students who are blind or visually impaired

can use computers thanks to Braille keyboards that have been specially built and screen reader programs like JAWS.[3]

Students with speech impairments can overcome the ability to communicate barrier with the aid of augmentative communication technology. For more effective communication, these systems utilize visual graphs, textbooks, and specialized computers with word-prediction features. Consider noting the following suggestions before requesting a company's services for developing technology for special education:

1. Consider the price of a particular solution and how it can impact the learning process.
2. Check to see that the program you intend to use is reputable and will seamlessly fit into the process of education.
3. Choose a technology that is simple to learn.
4. Pay special attention to simple and logical answers.
5. The options to add new functionality that satisfies your needs or modify the current solution.
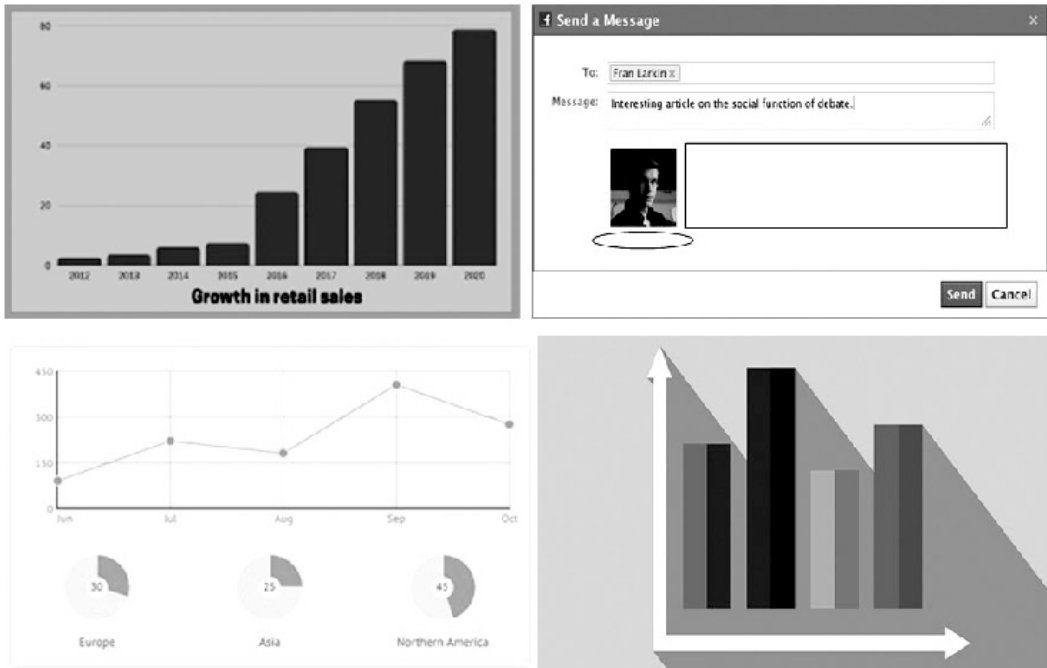
Issue to Resolution: Several Web-Based Special Education Programs

Modern software facilitates reducing the amount of work needed to approach the learner with a disability. Internet-based resources make it possible to take part in the classroom environment to the same extent as other students.

Distance Education by Web-based service -

Students with particular requirements may experience difficulties moving over extended distances as a result of some limitations. The objectives of learners and educational institutions can be taken into consideration when offering educational services thanks

to web-based learning solutions. The objective is to provide students with simple, user-friendly tools for scheduling, paying for, and monitoring their academic progress .[4]

Growth in retail sales

Students can order some of the offered educational courses online using this program without leaving their homes. Additionally, it's possible to engage a professional who is qualified to instruct kids who have a specific kind of limitation.

Affordable and Efficient Video Conversation for Online Learning -

Web-based talking tools that are neat and simple to use enable the creation of online classes to assist students with impairments in communicating with one another and the instructor. These online classrooms make it possible for instructors and students from around the globe to interact in real time. One of the key benefits of this method of instruction is that it is inexpensive. The cost of travel is not a concern for students. All that is

needed is a tablet or laptop with a connection to the internet .[5]

The web-based chatting tool XB Chat, which is user-friendly and allows both text and audio/video interactions, is a perfect instance of a solution to all these problems. Lessons can be read aloud in chat rooms with a maximum of five people. Both the teacher and the student can start a fresh person-to-person conversation if individual sessions are required. The instructor can show presentations to the complete class with the help of the screen sharing tool. Lesson recordings are another feature of the software. In other words, even after being sent, the content can still be accessed.

A web-based application for assessing academic performance -

Students with impairments can achieve their potential with the aid of special education software. Working with youth who may have learning difficulties brought on by brain traumas, developmental delays, or intellectual impairments is made easier with the use of individualized education program (IEP) software. Software for response to intervention (RTI) provides the instruments needed for knowledge assessment of pupils. Such a system makes it easier to track learning progress and display it as a series of charts. Additionally, it makes reporting simpler .[6]

The Online Staff Performance Management System (PMS) is a user-friendly performance management tool for educators that give teachers a better understanding of student progress. It permits monitoring a student's educational program and making adjustments as necessary. In order to help students achieve better achievements, educators can better manage personalized education plans.

Workflow Automation and Standards Compliance Web-Based Solution

A reduction in paperwork and increased organizational efficiency can be achieved by automating processes and building just one database of all students. Web-based educational software makes it easy for teachers to adhere to legal and regulatory requirements :[7]

Additionally, the ability to import as well as export data was put into practice. You can print or save every document you make with this module as a PDF file.

Conclusion -

Technology is used in special education to lower barriers to disabilities with learners and give them access to the most current curricula. Students with special needs can receive a modern education and access any needed information online thanks to well-designed software and hardware.

Technology makes it possible to differentiate teaching techniques and provide students with more individualized learning experiences. With the help of modern technology, teachers may quickly adjust to the potential of a certain student and select from among the many learning strategies that are available and cater to the needs of different learners.

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