

Newsletter about Technological Hazards, Coronavirous and Special Education



Technological Hazards

It's easy to assume that every leap forward in technology is a leap forward in benefit, but this is not always the case. Technological innovation, particularly of the fast-paced kind we see today, is full of possible benefits but also fraught with technological hazards. The emerging technology with by far the most negative consequences is artificial intelligence and robotics. There is no doubt that the impacts of these technologies will be dramatic. Among key concerns is the question of whether this technology will deprive millions of their jobs. Or in a world where machines are powered by artificial intelligence, how do we make sure that the decisions they make are ethical?

Biotechnology, where we modify living organisms for medicinal, agricultural or industrial uses, could also bring us enormous benefit, but is also high risk. This technology, could give the world more food to eat, for example, and could solve many health problems, but contains many ethical dilemmas, such as whether genetically modifying plants or animals could lead to problems we haven't foreseen as we are currently facing the Covid-

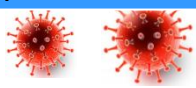
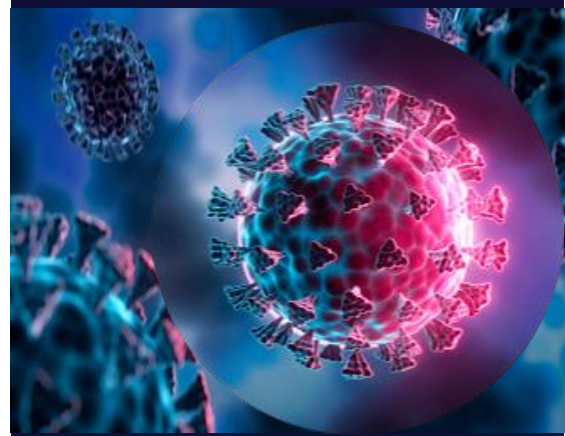
The COVID-19 pandemic came with restrictions, regulations and stay-at-home orders. This meant that people stayed indoors, offices remained shut, playgrounds were empty and streets remained barren of human interaction. Many individuals could not return to their homes, many stuck in foreign lands and many in solitude. As a result, the usage of digital devices has increased manifold across the globe. Irrespective of age, people are pushed to rely on digital platforms.

Education, shopping, working, meeting, entertaining and socializing suddenly leaped from offline to online. Here, digital technology came as a blessing in disguise, enabling individuals to remain emotionally connected despite the social distancing. At the same time, prolonged screen time has caused concerns related to its impact on physical and mental health. While mindful (and regulated) use of digital devices is linked with well-being, excessive screen time is reported to be associated with a range of negative mental health outcomes such as psychological problems, low emotional stability, and greater risk for depression or anxiety. Negative consequences often result when digital use is impulsive, compulsive,

Advanced Technology

The last two decades have seen an explosion of digital technology. It has accelerated human's exposure to prolonged screen time which is becoming growing concern. Digital technology is essentially the use of devices to store, generate and process data. It is also to facilitate the communication and virtual interactions on social media platforms using the internet.

Advanced technology that is still immature but promise to deliver significant value and also continuously making progress by improving flaws and bugs. There are some current examples of advanced technology that have technological maturity and few users like artificial intelligence, agents, speech and handwriting recognition, virtual reality and 3D visualization, smart cards, real-time collaboration, enhanced user authentication, data mining and knowledge management.





When you should start getting worried

Most common symptoms are fever, cough, tiredness and loss of taste or smell. Less common symptoms are sore throat, headache, aches, pains, diarrhea, a rash on skin, discoloration of fingers or toes and red or irritated eyes. Serious symptoms of Omicron are difficulty breathing or shortness of breath, loss of speech or mobility, and confusion or

**RUNNING
SCARED
WON'T HELP,
PRECAUTIONS
MAY**



What should you do, if you have symptoms

Seek medical care. Consider calling ahead to healthcare provider if you have travelled to an area reported with high ratio of Covid-19 cases. If you have been in close contact with someone who has travelled there and has respiratory symptoms then visit to

Precautions

Wear a mask that covers your nose and mouth. Make sure that your hands are clean when you put on and remove your mask.

Keep a physical distance of at least 1 meter from others.

Avoid poorly ventilated or crowded spaces.

Open windows to improve ventilation indoors.

Wash your hands regularly.

When it's your turn, get vaccinated. WHO-approved COVID-19 vaccines are safe and effective.

Use more Vitamin-C to boost up immune system.

**Prevention
is BETTER
than Cure**



Covid-19 Variants

Since the beginning of the COVID-19 pandemic, the SARS-CoV-2 virus that causes COVID-19 have mutated (changed), resulting in different variants of the virus. Viruses constantly change through mutation. Currently, the Centers for Disease Control and Prevention has identified two variants of the virus (SARS-CoV-2) that make COVID-19 a matter of serious concern. One is Omicron and second is Delta variant.

Omicron: This variant might spread more easily than other variants, including delta. But it's not yet clear if omicron causes more severe disease. It's expected that people who are fully vaccinated are still likely to be getting Breakthrough infection and spreading the virus to others. However, the COVID-19 vaccines are expected to be effective at preventing severe illness. This variant also reduces the effectiveness of some monoclonal antibody treatments.

Delta: This variant is nearly twice as contagious as earlier variants and might cause more severe illness. The same precautions, such as avoiding crowded spaces, keeping your distance from others and mask wearing, still work against the Delta variant. The greatest risk of transmission is among unvaccinated people. People who are fully vaccinated can still get breakthrough infections and spread the virus to others. However, it appears that vaccinated people spread COVID-19 for a shorter period than do unvaccinated people. The vaccines protect most people from getting sick,

Assistive Technology

Assistive technology refers to the devices and services that are used to increase, maintain, or improve the capabilities of a student with a disability. While the phrase assistive technology may make us think of computers and computerized devices, assistive technology can also be very low-tech. For example, pencil-grips (the molded plastic grips that slip over a pencil) are considered assistive technology. Assistive technology that helps students with learning disabilities includes computer programs and tablet applications that provide text-to-speech, speech-to-text (e.g., Dragon Naturally Speaking), word prediction capabilities (e.g., Word Q), and graphic organizers (e.g., Inspiration).

In comparison to other interventions, assistive technology may have a significant effect in helping students with disabilities progress towards the goals outlined on their Individual Education Plans. Assistive technology helps in two ways: it can help the student learn how to complete the task and it can help to bypass an area of difficulty. For example, when a student decides to listen to a digital version of a book, they are bypassing an area of difficulty. However, if the student focuses on the computer screen as highlighted words are read aloud, they can learn unfamiliar words. Laptop computers and tablet devices are beneficial for students with learning disabilities because they are portable and lightweight.

[illegible]

Technology in the classroom allows students to gain a deeper understanding of topics that interest them, collaborate with each other, and direct their learning. A list has been created on some of the interesting ways how we can incorporate technology into their classroom to increase student engagement. It is also very important to engage the students in the class of special education needs and disabilities. Special needs students have short span and also face many problems to learn so the fusion of advanced technology with special education is the turning point in education.

Advanced technology devices, such as computers, tablets, software, and games allow students to approach lessons differently. These devices cater to a variety of learning styles and abilities. Students who struggle in the traditional classroom may find their education to be more productive with the aid of technology. A student with dyslexia may benefit from text-audio-matching exercises. Or a child who has difficulty holding a pencil may find typing on a computer or tablet to be an easier alternative.





Fusion of Technology & Education

Technology can help the students with special needs in different ways. It makes learning very easy and interesting for them. Here are some Examples that how the fusion of technology and special education breaking the barriers.

Human Speech Recognition and Synthesizing: It is the best replacement of paper and pen during the lessons. It is the best alternative for such students suffering with disabilities. Such technology would be also helpful for students with disorders that don't allow to process visual information correctly.

Adaptive

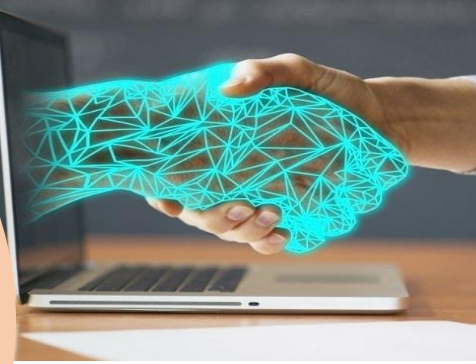
Computing Technology: The adaptive computing technology allows using digital devices to bypass challenging tasks. Screen reader applications such as JAWS along with specially designed Braille keyboards allow visually challenged students to use the computer.

Augmentative

Communication System: It is helpful for students with speech problems to overcome the communication barrier. Such systems use picture charts, books, and specialized computers providing functions of word-prediction for more effective communication.

Common Signs of a Learning Disability

- Problems reading and/or writing
- Problems with math
- Poor memory
- Problems paying attention
- Trouble following directions
- Problems staying organized
- Trouble telling time
- Clumsiness



FUSION OF TECHNOLOGY & SPECIAL EDUCATION, BREAKING THE BARRIERS

What should we do if a child is suffering with disability

A good attitude won't solve the problems associated with a learning disability, but it can give the child hope and confidence that things can improve and will eventually succeed.

What should keep in mind before applying technologies in special education

Pay attention to the cost of a given solution and its potential effect on the learning process.

Prefer a technology that is not difficult to master.

Make sure that the application is reliable and will naturally integrate into the educational process.

Focus on user-friendly and intuitive solutions.

Possibility to implement custom functionality that meets the requirements or customize the existing solution.

