

EMERGING TECHNOLOGY TRENDS IN EDUCATIONAL INSTITUTIONS



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INTRODUCTION

Gone are the days of card catalogs, spiral-bound notebooks, and chalkboards because contemporary learning institutions are increasingly digital. Computer-based and AI-driven tools, digital classrooms, and even virtual reality are core constituents of 21st-century education.

Twenty years into the new century, educational technology, or EdTech for short, has achieved new levels of sophistication. Along the way, it's transformed the way that we approach education, particularly for students with special needs. Let's take a look at the EdTech trends for 2020 and what to expect!

A SHIFT TOWARD COLLABORATION



Previously, students were encouraged to study — and learn — alone. “Eyes on your own work,” educators said. Except for the dreaded group project, students were by and large expected to direct their own study time, take their own exams, and compete against their fellow students..

Now that the world is increasingly digital and hyper-connected, educators are changing their approach to accommodate students’ need for collaboration and dialogue as a key part of their learning experience. Collaboration is the name of the game, with students not only doing projects together but also co-studying, co-learning, and co-creating. EdTech facilitates this new philosophy by making access to information, and therefore collaboration, easy for educators and students alike.

STUDENT MENTAL HEALTH

In recent years, educators and health professionals have learned how crucial it is for students to have good mental health. Stress disorders, exam anxiety, and depression can all seriously detract from the learning experience. Increasingly, people in the education field understand that mental disorders are not only fairly common, but should be treated as serious conditions that impact overall performance.



To address this problem, more educators are considering students' mental health in their classroom environments, and that includes using EdTech to facilitate safe learning environments. Apps such as MindMoose provide mental health awareness to students and teach them resilience and coping skills.

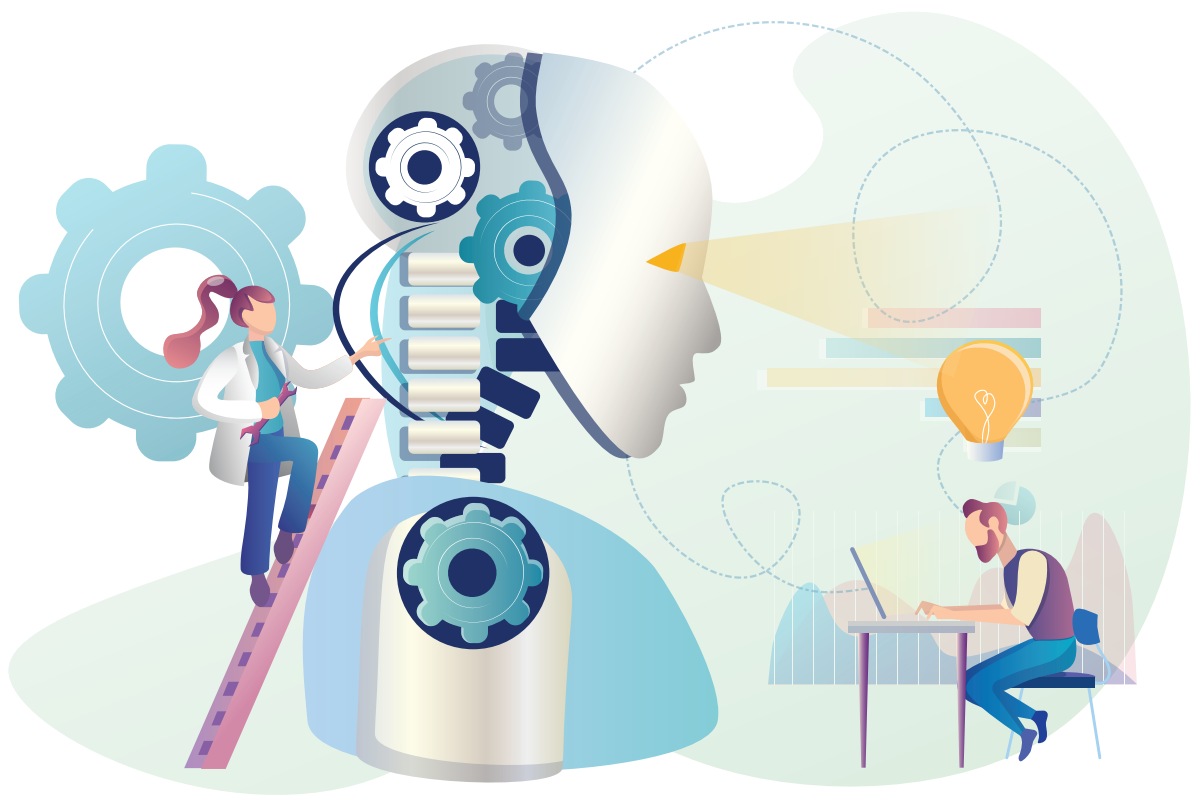
THE TRENDS OF 2021



These two paradigm shifts have both guided EdTech development and made it a crucial part of education. It's hard to envision a learning institution that doesn't have computers, tablets, digital tools, videos, and other newer technologies that replaced the old overhead projector and mimeograph prints. In the year 2021, there will be even more exciting developments that will forever change the face of education.

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Artificial intelligence is now able to process, predict, and automate a huge variety of tasks. Naturally, it's being used in educational settings to improve learning environments. With machine-learning capabilities that track and predict user behavior, AI-powered EdTech can fine-tune lessons to individual students — often more accurately than a human instructor. For example, some student assessment software can analyze the time a student takes to answer questions and provide accurate data on the student's individual struggle points. AI can also combine student performance records, psychographic data, and other sources into a comprehensive “smart” lesson plan that works better.



Thus, machine learning can produce sophisticated predictive analysis of student performance. For example, it can log and track student quiz-taking behavior or analyze their notes to provide “smart” insights into what makes that student tick. By identifying at-risk or struggling students, AI can improve curricula and testing methods to better meet individual needs.

AI also has a role in teaching. Just like how e-commerce chatbots can answer frequently asked questions or direct customers to digital destinations, classroom bots can handle course material. A teaching assistant bot created by IBM Watson had an entire class fooled by its realistic, accessible teaching style. Using bots to handle student questions or send them to supplemental material can streamline the classroom experience and make it more likely that students will engage with the material.

VIRTUAL REALITY AND VIDEO-BASED LEARNING

In addition to the wide variety of educational videos on YouTube, teachers have access to educational video hosting sites such as TeacherTube and BrainPop. Videos can help certain students more effectively absorb and retain information. With advancements in animation, videos can succinctly explain even complex topics. Plus, video recording and editing tools are now so affordable that educators can make their own supplemental video materials for their lessons. Video is important because many students struggle to absorb information from lectures or books. By offering the lesson in a learning modality that works for them, video-based learning can be more accessible and effective.

Where video and animation really can transform education is in the realm of adjusted reality, which comprises virtual reality (VR) and augmented reality (AR). Both are key forms of edtech and hold a lot of potential for students.

Virtual reality provides an immersive educational experience that combines film, animation, and auditory information to provide lessons such as virtual field trips. According to Penn State University, “students who used immersive virtual reality to accomplish a task did so more than twice as fast as students who used traditional computer programs.” VR can show students places that would be cost-prohibitive or dangerous to see in person, or even places that would be impossible to visit, such as the inside of a human’s circulatory system.



Augmented reality is similar to VR but entails virtual elements that are superimposed over physical-world experiences. Essentially, VR is a fully simulated experience, while AR overlays new digital information over the real world. AR is a great way to enhance STEM education for students at all levels.

OTHER AMAZING TOOLS

With the age of digital primacy comes perpetual innovation of tools that can make everyday learning easier.

Now, educational institutions are digitally enhancing their classrooms to better meet their learning objectives. These new tools facilitate communication and collaboration and better serve students' learning styles and mental health needs.



COLLABORATION TOOLS

Study groups have not only changed form, but also expanded scope. Rather than try to prevent students from using their phones and laptops in the classroom, many educators are embracing digital communication tools. Students can now connect with their peers via Facebook, Slack, or Skype to review material or collaborate on projects.

LEARNING MANAGEMENT SYSTEMS



Learning Management Systems encompass virtual tools for students to turn in assignments, take quizzes, and form discussion boards. In an era of large classes and conflicting schedules, LMS is a great way for students to stay connected to their fellow students and improve their learning experience. It can also enable students with anxiety to better participate in class discussions. Plus, it makes it a lot easier for the instructor(s) to receive, grade, and return assignments.

SMART DEVICES

Just as your home is slowly being taken over by AI assistants, so are classrooms becoming “smart.” Smart speakers and hubs are being used to play historical audio clips or ask Google questions rather than turn to order pizza. Even whiteboards, which replaced chalkboards years ago, are getting an upgrade. New interactive whiteboards are able to display digital information and receive input from users, not unlike giant tablets mounted to the wall.

ACCESSIBILITY AIDS

Educational institutions have also become much more accessible to students with various disabilities. Audio clips, as well as screen readers and other text-to-speech technologies, facilitate learning for students who are visually impaired or struggle to process written text. Videos, as mentioned previously, help students with different learning modalities. They can also provide a more effective source of information for students with attention-deficit disorders.



CONCLUSION

As EdTech continues to develop, it will enable a fully customisable, smart system of tools, devices, software programs, and philosophies that empower students to learn the way they do best.

Administrative tasks at educational institutions are also rapidly transforming and becoming automated - from student enrollment to handling queries, everything has gone digital! With this in mind, having streamlined communication is crucial and that's where Omni Hotline comes in.



Omni

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