

How Technology has changed the face of education:

For better or worse, we're living in a technology-driven world. Since the internet exploded onto the scene in the '80s and '90s, became accessible to the average family in the early 2000s, and eventually began to fit into our pocket with the development of smartphones, it's safe to say technology is on an upward trajectory, and it shows no sign of slowing down anytime soon.

Today, the internet dominates many aspects of our life. We're so used to it that we don't even think about all the areas it touches. It helps us communicate with our friends and family. It's an invaluable tool in the kitchen as we look up recipes and ingredients. If we're attempting DIY repairs on our car, we might look up a tutorial on YouTube. We access our entertainment online. Whenever we have any question, from the most mundane to the most complicated, we ask the internet.

There's one facet of our life, however, where we might not often think about the effects of technology, and that's the realm of education. Today, we want to spend some time examining how technology has found its way into the halls of schools across the country and around the globe, and all the ways technology has changed education.

How Does Technology Impact Education?

In many ways, education has not changed at all. The foundational system is still in place. A teacher instructs a student or a group of students, who use their studies to learn to become members of society. A few will then go on to become teachers themselves, and pass their knowledge along to the next generation. Books are frequent educational tools, and students will read these, write essays, reword my essay, conduct research, participate in debates and projects, and even gain hands-on experience that will help them better understand and navigate the world and their future careers.

While much of this tried-and-true model still exists today, changes are popping up. So how has technology affected education today? Let's look at a few of the most common ways.

1. Greater Accessibility

In the past, students and teachers alike needed to be physically present in the same location for learning to take place. Thanks to the way internet technology allows for instant and convenient communication over great distances at the click of a button, this is no longer the case.

How has technology changed learning? In the realms of higher education, it has led to the exciting possibility of online degrees. Established traditional schools now offer some of their courses online, while other schools have sprung up that operate entirely online, with students and teachers never once meeting face to face. In primary and secondary schools, this same technology allows for cyber-schooling, where children can complete their work from the comfort and convenience of home.

Online schooling such as these examples has helped immensely in breaking down geographic barriers that have long prevented many students from reaching certain educational institutions. For example, imagine someone who wants to study a highly specific program only available at one school across the country, but is unable to attend due to family commitments that don't allow her to uproot her life and move. Thanks to online education, she can now complete her degree.

2. Increased Flexibility

The idea of flexibility due to the internet goes hand in hand with improved accessibility. Online classes have freed students from having to attend school at specified times, something that is often impossible due to work or family responsibilities. Instead, course materials are available online, and students have the freedom to study and complete classwork whenever their schedule permits. As long as they complete work by the assigned deadline, it's up to them to plan how to use their time.

Technology has opened the doors of education to many who might otherwise be unable to attend a traditional school. Anyone working full-time, for instance, will now be able to continue their job while getting an education. Parents with young children can also find opportunities to attend school. Kids who are extremely serious about a sport and train for hours during the day now have the freedom to fit their schooling around their busy schedule.

3. Differing Interactions between Teachers and Students

With the development of online educational programs, the interactions between teachers and students have undergone a fundamental shift. There are advocates on both sides of this matter, with some saying this change is for the better and others saying it's for the worse. Perhaps the most helpful position to take is that this change is neither wholly negative nor entirely positive, and instead has both pros and cons.

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For example, because this interaction is online, class time is no longer students' only opportunity to ask their teachers questions and request information. Instead, they can take advantage of emails, instant messaging, and texting to ask their professors questions anytime, rather than having to wait for the next class, when the question is no longer fresh in their mind.

On the other hand, however, these technologies mean neither student nor teacher will have the benefit of a face-to-face conversation, where nonverbal cues aid communication, and additional topics may come up that supplement the original discussion.

4. Advent of Online Testing

Along with online education comes the advent of online testing, which is hugely beneficial for a whole host of reasons. Foremost among those reasons is the fact that online testing is impartial and entirely fair. If a machine is grading the test and automatically correcting wrong answers, it's impossible to show any signs of bias. Additionally, online testing can be an excellent solution for those who suffer from test anxiety and are distressed by taking tests in a room with a group of other people. Finally, it's also much better for those with busy schedules, who may struggle to be at a testing center at a particular time.

Online testing isn't without drawbacks, however. Most notably, it is only effective for multiple-choice tests, not for essay or short answer questions. Students can still take essay-based tests online, but a human teacher will need to grade them.

5. Improved Ability to Meet Special Needs

In the past, a rigid classroom structure defined the world of academia. Each student had the same experience, no matter their differing needs or abilities. While some students could function well in this environment, others had unmet needs.

Technology improves a school's abilities to meet the needs of all types of students. Now, students with hearing, speaking or seeing impairments, or those who are largely housebound, can still receive a quality education. Technological advancements can also meet the needs of students with intellectual, social, or developmental disabilities. No matter what a student's unique needs may be, technology affects education for the better by improving our ability to create learning environments that work for everyone.

6. Availability of Online Learning Content

Learning used to take place exclusively in a classroom setting. Educational tools were either books or officially produced videos. One of the ways the Internet has changed education is by allowing anyone to share their knowledge with the world by publishing an educational blog post, e-book, or YouTube video.

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The far-reaching benefit that comes out of this is that it makes it easier for anyone to learn. Imagine if you were planning a trip to Italy, and wanted to gain a fundamental knowledge of conversational Italian. No longer must you sign up for a class at a local university, or even visit your local library to check out a stack of dense textbooks. Now, all you need to do is pop open your laptop or phone and find a free app that'll teach you.

7. Greater Emphasis on Interactivity

Much of our traditional educational model focuses on the idea of passivity, where students sit back and listen to a teacher talk, or read words on the page of a textbook. This concept leaves very little room for interactivity and engagement, however, beyond what the student can manufacture in themselves.

Technology, on the other hand, tends to be more interactive. Students can engage directly with interactive models and videos, navigate websites, browse the internet for research, and more. For example, imagine the difference between trying to memorize a list of every country in the world from a book, versus an interactive tool that asked you to click on every nation as it prompted you with a name. Interactive tools help spark a broader interest in the subjects at hand, leading to improved retention and a desire to pursue topics further.

8. Heightened Ability to Keep up With Current Events

Let's say the only teaching tools a teacher has are textbooks, most of which contain information that's at least a year or two old, due to the lengthy publishing process. That may not have been a problem in the past, but the world today is moving faster than ever, thanks to technology. If the only information you have to share with students is a few years old, you may as well be decades behind.

Technology allows teachers to keep students up to date on not only current events, but also brand-new research and cutting-edge discoveries. Through using PowerPoint, YouTube, blogging technology, and the power of a good search engine, teachers can help their students understand the modern world they're living in much better than if they didn't have these tools.

9. Adaptability and Personalization

Educational spaces are becoming increasingly aware of the fact that what helps one student learn may be virtually useless to someone else, and what makes no sense to one student may be the only thing that clicks with another. Everyone's brain works differently, and everyone has a unique learning style — yet, for many years, all those students read from the same textbook.

How does technology affect education? It solves problems by allowing room for far greater adaptability. Students can benefit from having a range of tools and learning technologies at their fingertips, so if one solution doesn't work for a student, another might. If the students in question are still young children, teachers can better personalize learning plans and incorporate different technologies that will help a specific student.

10. Shifting Classroom Dynamics

With the arrival and popularization of internet technology, the dynamic in classrooms — particularly college classrooms — is experiencing a shift. Where the professor may once have been the sole source of knowledge, the internet has changed this. All the information in the world is available online, and students are extremely capable of looking things up for themselves, rather than needing to absorb this information during class time.

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Because of this, many classrooms are shifting, so students spend homework time learning new concepts and ideas, while they spend class time debating these ideas and discussing their various implications. In this type of classroom, the teacher is less of a lecturer and more of a moderator and mentor. Professors will likely offer office hours in case students have additional questions or concerns about the material.

This same model applies to online schools, which often expect students to gather information independently before sharing their thoughts on discussion boards and forums, where professors act as moderators. Students can contact their professors via text or online messages, or else they may host office hours in local public spaces such as libraries and coffee shops.

11. Preparing Students for a Technology-Based World

Because books and face-to-face lectures have dominated intellectual and academic spaces for so long, there are plenty of people who felt a bit scandalized by the sudden inclusion of video presentations, iPads, e-books, and podcasts into these spaces.

But it's essential to realize almost every other facet of today's world relies on these technologies. When students leave high school and college to find a job, these jobs will almost certainly involve technology of some kind. Even if they don't, internet technology will inundate other facets of their personal lives. The inclusion of these technologies into the classroom is about preparing students for a world that will be full of them. The technology is not only there to supplement the learning — it's there so students will learn to use it and integrate it into their lives.