**Merits and Demerits of Educational Technology**

Technology has invaded the classroom. A generation ago, students were lucky enough to have a computer lab in their school. Today’s students use computers for many tasks, including reports, presentations, and testing.

The internet has allowed for a plethora of technological tools to come into the classroom as well. Instead of watching an educational television program, students can now play interactive games and compete with one another to further the learning process.

Using technology has some definite advantages. There are also potential risks that must be considered when introducing technology into the classroom environment. The advantages and disadvantages of technology in education apply to the K-12, undergraduate, graduate, and doctorate programs that are available today.

**Merits of Educational Technology**

* **It provides credibility for the teacher.**

Today’s students have never known a world without advanced technology. They didn’t need to wait 45 minutes for a new website to load over a slow dial-up modem. Teachers who embrace technology bring a level of credibility to their knowledge for this generation that allows for educational applications in numerous subjects. Even just a single technological tool can make a major impact on the modern student.

* **It provides access to numerous resources instantly.**

It wasn’t that long ago when students were forced to drag heavy textbooks to class with them every day. Now most of those textbooks are available online and can be accessed through a computer. Organizational platforms complement the e-books and other tools that are available through technology so that the learning process is streamlined and effective.

* **It systematizes the boring stuff.**

For teachers, technology in the classroom is important as well. There are engagement tools available today that can begin to automate the grading process. Software platforms make it easier to track the performance of individual students, identifying learning gaps with greater speed. By automating more of the tedious work that teachers do every day, there is more time for actual teaching and less time spent at home reviewing work.

* **It creates a collaborative learning approach.**

When students of any age are in a learning environment that is based on a lecture format, the amount of information they retain can be as low as 5%. Technology has brought collaboration into the classroom. Students who learn in a collaborative environment can retain up to 80% of the information they study. And, if interactive practice is included in the classroom environment, information retention levels can reach 95% for some students.

* **It is an easy way to learn core vocational skills.**

Just about everyone has an online connection today. Students get to learn how to limit personal information in a safe environment when technology is introduced to the classroom. They can learn proper writing etiquette when it comes to online communication. They get to create presentations. The written documents using formatting guidelines. They learn how to research new subjects and how to properly source the data they find. These are all vital skills for the modern workplace and today’s students have the opportunity to master them before they even start looking for a job.

* **It allows the classroom to reflect modern times.**

Students should be able to look to the future when they enter into their classroom every day. Stepping back into the past might provide some joy in the nostalgia of it, but it will not prepare students for the challenges of a society that is rooted in technology. We can certainly learn from the lessons of the past, but we must also be ready for what the future may hold when its veil is lifted.

* **It can put all the needed data into one location.**

Technology provides various platforms and apps that allow teachers to combine and use all information about their students that may be useful. This might include everything from their attendance history to their mathematics proficiency. Once gathered, this information can be used to identify places where an intervention may be useful. It can also help teachers group together students who may benefit more from learning together than learning apart.

* **It allows students to work at their own comfortable pace.**

Schools still have rigid schedules, but technology takes some of the rigidity out of the framework. Technology allows students to work at a pace that is comfortable for them. Curriculum demands or programs can be adjusted easier to meet individualized needs to enhance the learning process. It can even be used for remote learning opportunities if the stimulus of a classroom is too much for the student.

* **It provides an opportunity to learn different ways.**

Students have more control over the learning process when technology is used in the classroom. It is a chance for students to embrace their natural curiosity to see what their interests, talents, and skills happen to be. Technology also provides an opportunity for students to try different things that may not have been possible in the past. That allows them to discover, on their own, which strategies work best to help them effectively learn new materials.

* **It can boost learning motivation.**

When you were in school, did you wake up excited to go to class for 6-8 hours? Or did you dread the experience because you were bored for most of the day? Technology in the classroom can boost learning motivation. Most kids enjoy using technology in some way. It allows active learners to remain engaged with the lessons and encourages not-so-active learners to find something that they might classify as “fun.” One of the best advantages that technology provides to the classroom is an increased level of motivation.

* **It is more affordable to do than many people may realize.**

Technology in the classroom does have a cost, but it is a minimal one. For less than the price of a set of textbooks, students can be given a Google Chromebook instead and access all of their books from it. Some families may not be able to afford the cost of such a computer on their own, but many schools could help to subsidize these costs so students could have access to the computer in the classroom – if not take it home every day as well.

**Demerits of Educational Technology**

* **It can be distracting to students.**

Technology access can be just as addicting as alcohol, drugs, and other vices. In the United States, the average person checks their smartphone about 100 times per day. That action occurs even if there are zero notifications for them to check on. Students may find themselves trying to access other components of the online experience instead of the learning experience. Only clear boundaries and expectations to follow can counter this issue so that technology can provide a needed learning opportunity.

* **It can disconnect students from face-to-face relationships.**

Interacting with people online is a very different experience than interacting with them face-to-face. When people feel like they can be anonymous, they begin to lose the filter that they have over their words and conduct. Some people even disconnect from regular social interactions for the comfort of a screen, words, and emojis. That is why technology should be used as a tool in the classroom. It cannot be the only component of the learning process for students.

* **It can make it easier to cheat.**

Technology allows for easier communication between people and that is a definite positive. That ease of communication also makes cheating more likely. All it takes is a single group email broadcast to share the answers to a quiz or test, especially if the teacher is not monitoring student interactions on the computer. An easy way to counter this issue is to provide assignments which require an individual perspective. Encouraging thought instead of memorization typically reduces the urge to cheat.

* **It could put some students at a disadvantage.**

In the United States, there are 1 in 5 children who live in households that do not have regular food security. The idea of incorporating modern technology into their lives is secondary. It’s better to have a pantry stocked with essential groceries than to have a new iPhone in the pocket. Schools must provide technology access that is equal to everyone for it to be an effective learning tool. Free resources, such as computer access at a library, must have barriers to access removed. Only through sharing can this issue be negated.

* **It could cause students to use unreliable resources for learning.**

There is a lot of good stuff that can be found on the internet today. There is also a lot of **misleading and absolute false** data that can be found as well. Students must learn how to identify a quality information source from something that might be labeled as **“fake news.”** Drawing opinions on questionable content could put students at a disadvantage when it comes time to carve out a spot for themselves with the rest of society.

* **It can make curriculum planning more difficult or expensive.**

Not everyone knows how to use the modern tools that keep teachers better organized today. Learning how to use a new tool can be just as labor-intensive as getting through a tough class to earn a teaching degree or certification in the first place. Some school districts may not help with the costs of these tools either, but expect them to be in the classroom. That means the costs come right out of the teacher’s paycheck.

* **It can replace the teacher.**

Many software learning tools provide teaching mechanisms within the program itself. Apps do the same thing. With a program like ABC Mouse, students can interact with a programmed online teacher as they complete learning lessons. That forces the teacher into a role of observer or manager. Teachers may never become obsolete, but technology in the classroom can replace much of what they have done in the past already. That means the future of teaching may lie in being involved in the creation of new technologies instead of designing a personalized curriculum to implement.

* **It can create issues of privacy.**

Identity theft is a major problem in today’s world. Putting students into advanced technology puts their privacy at-risk every day. Even though most apps and software have strict privacy measures in place, there is no way to completely eliminate the risks that are involved in this area.

* **It could create medical issues for some students.**

Staring at a computer screen, a smartphone screen, or a tablet screen can create eye strain. When this occurs, the symptoms may include irritation of the eye, feelings of fatigue, and even blurred vision. It may also lead to a more severe condition that is called “Computer Vision Syndrome.” According to reporting from CBS News, heavy computer use among children puts them at-risk of suffering early myopia. In people 12 years of age or old, the prevalence of myopia is nearly 60%.

* **It may cause children to lose track of time.**

Children are uniquely adaptable to changing environments. What they see is what they think is normal, even if what they see is problematic. That includes more than just their eyesight. Children often lose track of time when they are using a device with a screen. This leads to prolonged periods of sitting, which could lead to hyperactivity, obesity, and other issues. It can also interfere with sleep patterns as the child disengages with their natural circadian rhythm.

* **It is often limited.**

Technology in the classroom is often limited to word processing needs or basic research. The numerous uses of modern technology are either not permitted or partially excluded, often for political or personal reasons. That limits the effectiveness of technology and alters the learning opportunities that students have in a negative way.

* **It can create a dependence.**

If you’re asked a question and don’t have an immediate answer, what is your first instinct? Do you try to pull the information out of your memory? Or do you perform a web search to find the answer for you? Technology can provide access to a vast amount of data, but it can also create a personal dependence upon that access. Students using technology every day might feel offended by the idea of picking up a real book to read. They might even resist going outside for recess or to participate in family activities.