
Availability Of Technology For Students

I. Introduction

Education is the basis of the modern world with it becoming standardized in all first world countries. With the Information Age, society has begun to adapt and engross technology into their daily lives. The technology has begun a way of life for the younger generations and has changed the way they communicate and learn. With this in mind, much of education in public schools in the United States have not changed in correlation with the Information Age. The rate at which information students can absorb is significantly less, causing a slump in their education. The solution to this is a change in the education system and integration of technology into all aspects of education in order for the young generations to excel.

II. Summary

Some would say that the Information Age started in 1984 in which the world as it once was would forever change for the better. Without technology, much of education was done in a traditional manner. Students would be taught the conventional way by orally reciting what was being taught. Techniques by each teacher were unique and the teacher was in control of the classroom regardless of the needs of each unique individual. With some minor technological advancements in the classroom, change has already been seen by many educators (Richtel). With the decreased attention span of students due to the extensive use of technology, conventional teaching is ineffective. Technology today has become a rapid information spitter and young generations have begun to adapt. They are no longer able to sit and absorb from textbooks slowly but instead require media such as videos, pictures, and games (Richtel).

Even though teachers are not well-versed in technology, it is crucial for the modern technology to advance into the classroom. Modern technology allows for the customization of education for every student. It allows students to refresh what they may have missed without having to inquire with the teacher which may be more comfortable for the student. Students have changed so much that a teacher claims that, "I'm tap dancing all over the place... The more I stand in class, the easier it is to lose them." when asked about how their current classroom is (McKnight). Students today are able to communicate with email and other basic means of contact, but there is a chance in the future that the educator may even be able to interact with students live and show them through 3D/Holograms. While this is speculation of future technologies, the implementation of current technologies is crucial. These advances need to be introduced as stepping stones so that teachers are not jumping for mountains. The ability to transfer the teachings in classrooms to the real world is a lot easier as material can be connected to media most of the time. Students are able to see real world applications without having to actually experience and know the purpose of the material that they are learning (Richlet). Studies on the effects of technology have become so prevalent that due to the heavy technology use, "[technology] makes reality by comparison, uninteresting" which says a lot about how vital technology is (Richlet). The next step is to incorporate these facts and to implement technology in the classroom in order to accommodate for these changes in the students behaviors.

III. Historical Context

Looking at the historical context of education and technology is often overlooked as obsolete. But due to the elongated Information Age, the effects of technology can be examined (Selwyn). The pattern in which technology grows is also quite similar in different time periods. From a different perspective, it is important to note that not enough time has passed to really analyze the effects of the internet, one of the largest driving forces of technology. Some examples of old technology can date all the way back to the 1600s when printed text began to appear. Blackboards and whiteboards began to appear in the mid-1800s which may not seem to be 'technological' is still advancements and changes to the classroom (Selwyn). A time where technology has failed in the classroom is back in the 1950s, a school in Michigan used educational film in the classroom in order to educate their students. It was quite apparent that they were not having a major positive impact on their education and was soon expelled (Selwyn). Even before the films, was the enthusiastic movement of educational radio. It enticed a large amount of educators but in the end also ended up failing. More recently, in the 1980s was the movement of educational television which still continues today. This however also found itself abandoned in the classroom. These historical event could have a serious impact on why schools and districts today do not budge on assigning their budget to technological advances. There is however, a common cause for these historical failures. Teachers are what caused these technological advances to wane off. Lack of ability to operate or lack of interest is the typical cause of abandonment by teachers.

Each of these phases of technological implementations into the classroom do draw out a few lessons. It is clear that through each of the phase, a lot of enthusiasm and optimism surrounded them. The problem is highlighted by a "top to down" manner in which technology was implemented. Each phase was pushed onto the educators without proper consolation and optimism. Forcing teachers to use these advances only caused them to shy away from them. With the emergence of the internet and social media, these methods must be introduced and then implemented carefully. It is clear that the decision maker in implementation is ultimately up to the teachers and educators to make.

One of the hardest things shown by historical context is the ability to showcase concrete proof of improvement. Many variables impact how students learn and researchers are often left questioning the method of research (Sewlyn). Simply the background and location of the student can impact how they react to technology. It is not possible to certainly say that history will repeat itself, but it is certainly possibly to learn from it.

IV.Possible Problems

While technology has a lot of benefits in the classroom, there are a few things that may potentially be more destructive than good. Will bringing technology to technology-addicted students be the best idea? Many speculate that bringing in technology will only make matters worse as students need to learn to adapt and learn traditionally. This can be countered by the fact that in the real world, industries have already quickly adapted technology, and it is important for students to be well versed in modern technology in order to be successful. Many employers have begun to find a lack of potential employees with training and experience that create skilled workers (Cappeli). Much of this is to blame on the education system. It is important for current technological advances to hit the classrooms as soon as possible. The percentage of employers having trouble to find skilled, technical positions have jumped well over fifty percent just in the United States (Cappelli). Students in the United States are dropping

in the education system so far back that the ranking of science is only twenty-third and math at thirty-first (Index). The economy and businesses will soon fall greatly behind other countries without the changes in our current education methods.

Fundamentals of reading and writing are also at risk. Videos and short articles now dominate the internet which cause a lack of interest in reading long novels. Reading comprehension and writing skills continue to fall as shortened language and slang become standardized in the younger generation (Cappelli). These skills are essential to survive in the real world and application of these skills must be practiced through the classroom. In response to these problems, companies have started to change their products in order to help literacy. Devices such as e-books, e-readers, and tablets are capable of changing students to improve on their literacy (Biancarosa). Basic literacy skills can easily be taught through these devices and activities can be implemented into readings easier. This technology also allows for students to receive immediate feedback on personalized answers. No longer do students have to wait or confront teachers, but be able to progress at their own level. Difficult to understand concepts can be alleviated by videos and animations that show a step by step process that teachers aren't usually able to convey easily. This allows students to practice a skill that is very important in the real world. Collaboration. Technology allows for collaboration in subjects that were once individual projects (Biancarosa). Writing assignments and projects can now be edited simultaneously while students can also work in an environment secluded to their groups. These skills are important and play a significant role in their future.

Diversity in skill level is one of the largest problems in the classroom today as differences in ability stagnate in how the teacher teaches the class. The teacher typically has to decide if it is more important to allow the top students to excel or to catch up the bottom students to the standard. Implementing technology allows the teacher to educate the entire spectrum of students to the fullest without taking away from their education while also accommodating the students that have impairments (Biancarosa). New and more efficient techniques can quickly be researched and creating new content is now accessible by educators. Privacy is also a large plus. From experiences in the classroom, it is clear that often times, students aren't able to articulate themselves in fear of the opinion of their classmates. With technology, privacy can be kept while the student continues to learn.

This however creates a new problem. A gap in economic status may influence the ability of students to utilize technology. Students on the lower end of the economic status may not be able to purchase the up to date technologies and may rely on technology that has already become obsolete (Biancarosa). New technologies will only continue to widen this gap. The simple solution to this is that schools and districts must subsidize these tools for the students. It should not be the responsibility of the students and their families to supply what is fundamental to a modern classroom. This does expose a larger societal problem that cannot be simply addressed. Economic division in education has always prevailed and technology has the possibility of damaging it (Goldin). Between richer and poorer districts, a division of technology will be apparent and skill levels will ultimately be significantly different. This is however a reality that revolves around society and the basis of a capitalistic nation. It is a fact that must be accepted and looked over in order to maintain a competitor in the international education race.