

Technology In the Classroom Beneficial? Or Over-Kill

How does living in the age of technology affect the education students' receive and how can school boards and educators implement an appropriate use of technology in the classroom?

“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important. -Bill Gates

There is no denying that the amount of technology use in the classroom is at an all time high. In a recent study from 2009 The National Center For Education Statistics surveyed that “97 percent of teachers had one or more computers located in the classroom every day, while 54 percent could bring computers into the classroom”. In the midst of the digital-age technology has embarked on society as a whole, it has also integrated its way into the classroom.

The term integrate in regards to technology does not mean to simply have in the classroom, but instead make deeper meaning of material that could not be accomplished otherwise (Earle).

The purpose of this article is to explore technology use in the classroom and how it affects the way schools' implement technology, educators teach, and students' learn.



The Evolution of Technology

1960s: Technology has little impact. It is a curiosity

1970s: Technology is for academics and has little impact

1980s: Technology invades homes and begins to change behaviors

1990s: Technology is now everywhere. A great leap forward. It begins to connect us around the globe.

2000's: Growth is explosive, but like “explosions” is uncontrolled - all over the place

2010's: Technology becomes fully integrated into our daily lives. We live more in the digital world.

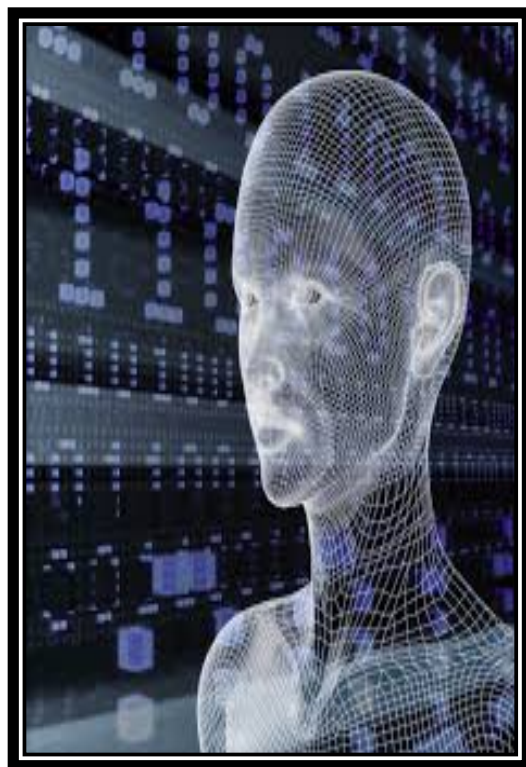


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Within the last 30 years schools' have witnessed the **first computers** enter their classrooms to the implementation of the Apple iPad for every student in the school (McMullun). Over the past decade an even greater push has been made towards implementing technology centered learning. Schools face issues such as funding, meeting curriculum standards, and properly training teachers how to use the technology implemented. Many wonder why schools are so **adamant for change**, as the old saying goes why fix what isn't broken? According to an educator from Cushing Academy, “Student's inhabit a 21st century world for 18 hours a day,” “And, all too often, educators put them in a 19th century classroom for six hours of that day, and

the students feel a tremendous disconnect” (Lytle). A classroom infused with technology has become a necessity in order for students to feel a connection between school and the world that we live in. Successful technology integration cannot be achieved without overcoming many obstacles, one of them being funding. While 78% of K-12 teachers believe that technology has a positive impact in the classroom (Lytle), lack of funding provided by the state puts **lower-income** schools at a disadvantage. While there is the option of applying for a grant from the state, requests are not always approved. Other aspects schools consider when implementing technology into the classroom is how often it will be used, how it will enhance lessons, and funding that goes into training staff.

From an educator's stand point, the most important aspects that goes into teaching is having students learn in the most effective and engaging way possible. Today, many teachers have students' entering their classrooms with instinctual-like knowledge of technology. A large percentage of teachers



believe that technology has made a positive impact on their classroom (Lytle). Yet according to Earle “fewer than half of the teachers used computers for instructional purposes, rather than word-processing, spreadsheets, or

graphics for personal productivity”. With such emphasis put on funding towards technology in the classroom, many believe that money should be put towards teacher training of electronics (Earle). The effectiveness and intent of technology usage in the classroom play as critical components on this topic. So often, educators use technology with no underlying purpose, aside

from changing up the flow of a lesson. According to Yelland, “it is about creating contexts for authentic learning that use new technologies as integrated and meaningful ways to enhance the production of knowledge and communication and dissemination of ideas”(Vanderlinde).

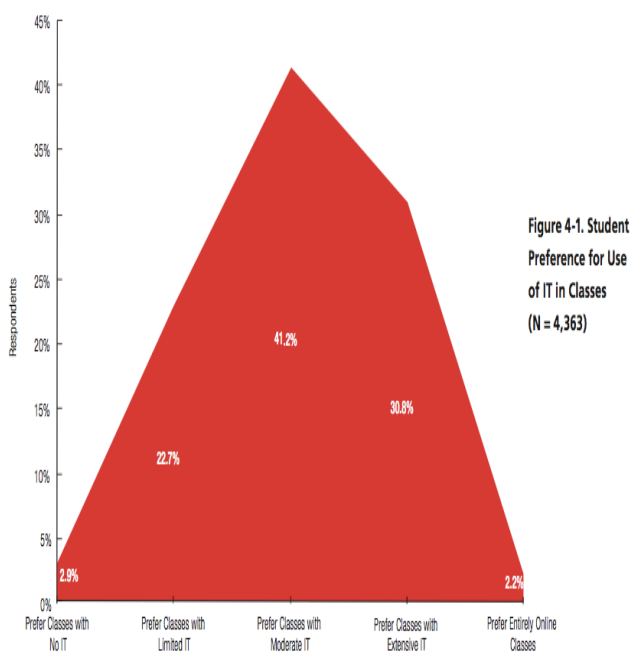
Table 1 Framework for educational technology attainment targets in Flemish primary education and first grade of secondary education (http://www.ond.vlaanderen.be/dvo/ICT/ICT_BVR.pdf)

1. Students have a positive attitude towards educational technology, and are willing to use educational technology to support their own learning process.
2. Students use educational technology in a safe, responsible and effective way.
3. Students can work independently in a learning environment enriched by educational technology.
4. Students can learn independently in a learning environment enriched by educational technology.
5. Students can use educational technology to elaborate their ideas in a creative way.
6. Students can use educational technology to search for, process and store digital information.
7. Students can use educational technology to present information to others.
8. Students can use educational technology to communicate in a safe, responsible and effective way.
9. Students can chose adequately between a number of different educational technology applications, depending on the specific goal to be achieved.
10. Students are willing to redefine their actions after reflection on their own and others' use of educational technology.

Trained properly, teachers will be able to enhance lessons through technology, as well as build technological skills that students can use in the digitally native world. For this to happen, teachers must put an aim on what they want to achieve when using technology in a lesson as seen in Table 1.

“As technology evolves, so must the teachers” (Lytle). In the age of knowledge teachers and books are not the only source of information. By keeping up to date with technology and when to implement technology into lessons, teachers can thrive in a technology-based society.

While the efforts of school boards and faculty are responsible for providing an adequate education, the most important aspect of integrating technology into schools is: how will this effect the students? As Figure 2 shows, 98.1 percent of students prefer some kind of technology integration in the classroom. Schools and educators react to the meet the students needs; and now classrooms are integrated with all different types of technology.



“It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something.”

-Thomas Jefferson

Students in classrooms that are technologically equip are more likely to be inclined to actively engage themselves in information and think more independently through their actions (EdReform). According to Ed Reform “When students are using technology as a tool or a support for communicating with others, they are in an active role rather than the passive role of recipient of the information transmitted by a teacher, textbook, or broadcast. Teachers have reported that the main improvement they notice when using technology is **student motivation**. Often students are surprised with their own accomplishments through using technology (EdReform) On the contrary, negative results from integrating technology into the classroom can arise. Students may not see the end goal of using technology if the teacher does not do an adequate job of planning an effective way to integrate technology into the lesson (Earle).

Another aspect taken into consideration when implementing technology into the classroom is the potential distraction that the Internet can create. Figure 3 is an example of a study done in 2004 with college-level students and the amount of time spent on the Internet. As displayed, the mean average of searching the web for pleasure falls shortly behind writing documents and classroom activities. If students are not given guidelines and expectations to follow of how to effectively use the Internet for educational enhancement, the classroom could become an environment prone to distraction.

As the education system embarks on the journey to find the balance of technology usage in the classroom, the world continues to evolve and advance itself. There may not be one right answer of how society and schools should be using technology and if one method fails, then try something new. Although, if schools integrate technology into the classroom and use it for practical purposes then students will have more access to educational resources than ever. With school boards, teachers and the students working together an effective technological

system can be put into action. Providing best education possible may mean taking a leap into the world of technology and opening endless possibilities for the digital-age students of today; so as long as it enhances learning to its fullest.



Old School



New Age

Activities	Mean*
Classroom activities and studying using an electronic device	4.01
Writing documents (word processing)	3.76
Surfing the Internet for pleasure	3.47
Creating, reading, sending e-mail	3.47
Chatting with friends or acquaintances using instant messaging	3.45
Using an electronic device (computer, Palm device) at your place of employment	3.31
Downloading or listening to music or videos/DVDs	3.15
Completing a learning activity or accessing information for a course using course management systems	2.48
Using a university library resource to complete a class assignment	2.46
Playing computer games	2.39
Creating spreadsheets or charts (Excel)	2.07
Online shopping	2.06
Creating presentations (PowerPoint)	1.82
Creating graphics (Photoshop, Flash)	1.79
Creating Web pages (Dreamweaver, FrontPage)	1.39
Searching and using resources (Director, Movie	1.34



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[Street Address]
[City], [State][Postal Code]

[Recipient]

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Address Line 2
Address Line 3
Address Line 4