Further progressing into the age of technology, today, the world as we know it does not only revolve around technology but also depends on it for further progression in various areas like education, medical, warfare and many more. The use of technology in education has grown widely in the past couple of years and today, almost every student, even the ones in elementary school are required to use a computer or is being taught how to. The way I personally understand technology is that it is a sort of advancement built by human beings in aiding other individuals to become more productive, efficient and time-saving doing even the most basic tasks like cooking or cleaning the house. A topic that I will be focusing on in particular is the influence and use of technology in the world of education.

In tertiary education, technology almost seems to come hand in hand with education itself. Colleges today are filled with technology allowing students to have access to computers almost everywhere on campus, even their residence halls. Computers and tablets are often used in classes for note taking and presentations, and the web is used every single second for information research. Today, the latest advancement includes 3D printers where Indiana University has a designated area for where students can utilize these devices for educational purposes. As we grow older, I have noticed that technology becomes more prominent in our lives and is often inseparable. At the same time, devices like computers, tablets, and smartphones are used for education, they are also mainly used as means of communication. That being said, we are on our devices almost 24/7.

In an article on technology in education by Benjamin Herold, it is stated:

“Public schools in the United States now provide at least one computer for every five students. They spend more than $3 billion per year on digital content. Led by the federal government, the country is in the midst of a massive effort to make affordable high-
speed Internet and free online teaching resources available to even the most rural and remote schools. And in 2015-16, for the first time, more state standardized tests for the elementary and middle grades will be administered via technology than by paper and pencil.” (Herold, “Technology in Education.”)

Based on the paragraph above itself, it is clear on how important technology has become to humans, especially in aiding students in their education. More and more countries today are starting to realize the benefits of implementing technology into schools and are pushing towards making these resources accessible even for students in rural and remote areas.

Some benefits in the use of technology in education are as stated below (“Use of Technology in Teaching and Learning.”):

**Distance/Online Learning**

Technology has allowed us to be able to sign up for online classes, meaning students from all over the world can have access to any education they want anywhere in the world. Distance or online learning is highly beneficial to individuals who are unable to commute to a specific campus, or even for high school students who want to take college-level classes during the school year.

**Environmental Friendly**

Another important aspect of implementing technology into our daily lives is that it allows us to be more environmental friendly. Through the use of eBooks in replacement of physical books, gadgets in replacement of paper notes for presentations and online examinations in replacement of paper-based ones, we are saving more and more trees every day.
Open Resources, Quick and Easily Accessible data

This is probably the biggest aspect of technology that remains and will be for a long time the most useful thing to human beings. Technology, gadgets and the World Wide Web allows the public to have access to copious amounts of resources such as open online libraries, news websites, article, governmental resources, and eBooks. Websites like KhanAcademy, Quizlet, Prezi, TedTalk, YouTube, Evernote, and Google Scholar, are some of the most valuable resources for students today. They range from providing research data to homework help in the form of study guides, online presentation tools, video tutorials and online flashcards.

Communication in Education

Teachers can also utilize technology in the form of communication. This allows them to connect with their students in distributing class material, homework deadlines and online discussions within the class. Websites like Edmodo and Google Classroom are widely used all around the world with Indiana University also utilizing such resource like Canvas. Aside from that, students can seamlessly interact with one another on group projects without having to meet up with the help of Google Docs, which is a cloud-based application that stores information that can also be shared online. ("Real Digital Lecture.")

Academic Misconduct Prevention

Through measures of preventing academic misconduct during the age of technology, various schools and institutions utilize Turnitin’s services of detecting plagiarism in research papers. Another example would be the implementation of technology through the Kelley School of Business where high tech webcams are used to monitor examinations to prevent cheating.
The use of technology in education relates closely to informatics and computer science as they are both educational majors that can be found all over the world, including Indiana University itself. Students under these majors are taught about the development of software and the application and implementation of technology into our daily lives. At the same time, students majoring in other subjects are also exposed to elements of technology even as early as their freshman year. Classes like INFO-I 101, BUS-K 201, and BUS-K 303 are available to college for a basic knowledge of programming languages and also Microsoft programs. According to some Kelley professors and advisors in particular, past students of IU who have entered a new phase of their lives in the workforce have mostly reported that a lot of the required technology-based classes they had to take in college was a highly valuable knowledge for them to possess as they had given them a skill in understanding business analytics.

Above all its uses and benefits, individuals have argued that the technology does not always have a good outcome. Considering how accessible technology and data are to us today, we are exposed to a higher possibility of being unethical in ways where cheating and plagiarism can occur in relating to the Ethics lecture. This, however, can be counteracted through the use of Turnitin, an online service that helps instructors detect plagiarism in research papers. Technology might also be a source of distraction since students are allowed to bring their devices to class. At times when full concentration is required during lectures, the social media that can be accessed through their gadgets might distract some individuals. In smaller classes, this might be prevented, however, will be more difficult to control in big lecture halls. That being said, college students are old and mature enough to understand what they should and should not do. It is their sole responsibility to invest their time and concentration into school as a student. (“Ethics Lecture.”)
All in all, there is no cutoff point for technology, similar to how we talked about informatics and computer science in our introduction lecture. ("Intro Lecture.") The uses of technology encompass so many areas that are interrelated with each other. At the same time technology is widely used in education, it is also tied to the workforce as jobs are created through these areas. In Indiana University specifically, the University Information Technology Services (UITS) “[provides] information technology services to the university community, and advancing high-performance computing, networking, and the evolving international cyberinfrastructure.” ("About IT @ IU.") UITS outlines every single possible opportunity everyone has on campus, from different applications that they can download and utilize for classes to the training and workshops available. Besides their main employees, students can also find jobs with UITS, which at the same time provides education in the form of technological training for their future jobs.

Without a doubt, students today will not understand the struggles that their elderly had to go through. Back then, before the Internet had existed, information was all found through a human source or a written source like books, articles and encyclopedia. College students today are the ones that will be the creators of tomorrow. As mentioned in the Bits and Bytes lecture, we see the World Wide Web progressing every single second of the day and directly correlates with the advance of technology in education and other sectors. ("Bits and Bytes Lecture.") With the help of technology in education, year after year college students become more valuable as they progress into the workforce with the technological experience that they had in school.
TV Show: “The Big Bang Theory”, Season 6, Episode 1: “The Date Night Variable”

“The Big Bang Theory” is a popular American sitcom from Chuck Lorre Productions and Warner Bros. Television, which airs on the CBS television network in the United States.” (About Big Bang Theory”) This world-renowned show surrounds the lives of its seven main characters: Dr. Sheldon Cooper, Dr. Leonard Hofstadter, Penny, Dr. Rajesh Koothrappali, Howard Wolowitz, Dr. Amy Farrah Fowler and Dr. Bernadette Rostenskowsi-Wolowitz.

Genius but geeky and awkward physicists Sheldon and Leonard are housemates who work at the California Institute of Technology. Penny who is married to Leonard, after their on-and-off relationship works in pharmaceutical sales lives across the hall. Also socially awkward Aerospace engineer Howard and astrophysicist Raj, microbiologist Bernadette and neuroscientist Amy are all in the group of friends of Leonard, Sheldon and Penny.

The episode that was chosen is “The Date Night Variable” which was the first of season six. Facing a rocky moment in their relationship after proposing, Leonard and Penny go through an awkward time with each other. Making things worse like he usually does, Sheldon interferes with their relationship in offering his thoughts and analysis that further annoys Penny who wants everyone to drop the subject of Leonard proposing. Sheldon on the other hand has his second anniversary with girlfriend Amy, however outsources help to get through the dinner by bringing Raj along with him. Thinking how this is outrageous, Amy becomes upset with Sheldon. The main focus of this show is Howard’s experience in the International Space Station, where after arriving he is seen to be video calling his wife, Bernadette where they got married right before he leaves for space. (Lorre, Kaplan, Holland, Reynolds, Ferrari. “The Date Night Variable.”)

The kind of technology that encompasses this episode is space technology and everything inside of the International Space Station (ISS). The ISS is a large spacecraft, home
to scientists in outer space. It was built in collaboration with multiple countries and used up until this day. 220 miles above Earth in orbit, the ISS is where NASA learns about living and working in space as lessons for further space exploration. (Dunbar, Brian. "What Is the International Space Station?") In this TV show, Howard is sent to the International Space Station as a payload specialist to install his team’s deep field telescope. (“Expedition 31.”)

The technology is available in real life and replicated in the show, however, not everyone has access to space technology. This episode was created “on a sound stage at the Warner Bros. studio lot in Burbank, California” after the production team rented a space station through WonderWorks which “inside [held] the replica science and equipment racks, panels and hand holds that form the general layout and appearance of the real space station’s laboratory module.” In real life, individuals who are allowed to work with space technology under NASA or any space organizations have to be highly educated under specific education requirements and well trained, especially the individuals behind the construction of space vessels, satellite and the ISS along with the astronauts themselves.

Space exploration had first officially started on October 4, 1957 when the Soviets launched Sputnik 1 into space, the first-ever artificial Earth satellite. The advancements that follow the Sputnik accomplishment had grown vastly. Today, we are expanding our missions and discoveries to 54.6 million kilometers away: Mars. (“NASA’s Journey To Mars.”)

This technology is definitely helping the advancement of the human race in discovering possible options to life itself. Through space exploration, scientists are striving to find out what is happening in outer space: the unknown. “The Big Bang Theory” did not touch on any issues of space exploration causing problems other than focusing on the advancement of Howard’s team’s telescope being installed in the ISS. In real life however, space exploration can definitely cause certain problems. Space travel in itself is very dangerous as seen in the past with the Columbia Disaster, Challenger Explosion and the Soyuz 11 Decompression
Accident to name a few of them. (Venugopal, Ramasamy. "Space Disasters and Close Calls in Human Spaceflight.") However, the journey into space exploration continues despite its risks. As emphasized by Sylvia Earle, founder and Chair of Deep Ocean Exploration and Research, Inc., “we should be more concerned with not taking the risk, concluding that "what is really at risk is our future.”” (Dunbar, Brian. "Risk and Exploration.") All that goes into this without a doubt affects the lives of people in real life. As mentioned before, space exploration might give us humans a big break, maybe a discovery in a new form of life or even a new way of life, different as to how we know it. In “The Big Bang Theory”, this mission gives Howard a sense of pride in his own accomplishment as his friends, Sheldon especially, often brings him down for the fact that he is simply an engineer with a master’s degree as opposed to himself, Leonard and Rajesh with doctorate degrees.

Technically, nobody owns space. In this context, the International Space Station is not invading anyone’s territory, which allows this action to be ethical. “129 countries, including China, Russia, the UK and the US, have committed to [the Outer Space] treaty, which is overseen by the United Nations Office for Outer Space Affairs. It sets out important principles, such as the concept that space should be considered the province of all mankind, that outer space is free for the exploration and use by all states, and that the Moon and other celestial bodies cannot be claimed by a sovereign nation state. Additionally, the Moon and celestial bodies are to be used purely for peaceful purposes, and weapons will not be placed in orbit or in space.” (Ali, “Who Owns Outer Space?”) It could be used unethically once any form of weaponry is involved, also if any country attempts to ‘claim’ space as their territory.

In the near five to ten years to come, space exploration will definitely not diminish from the world considering how far we have gotten from the start. This field is evolving every single day especially due to how much the outer space has still been undiscovered due
to its vastness. Once we discovered what goes on on every single planet in our solar system, our scientists will proceed to go further and farther into the deep space, and that will require a very long time for us to accomplish.

**Works Cited**


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