Social Advantages and Disadvantages from Advancements in Modern Information Technology

It is undeniable that computers are shaping the world and increasing their involvement in daily life; however, is this larger presence of computers beneficial to all those affected? Perspectives must be taken into consideration when discussing the advancement of technology and when implementing a new procedures and/or processes. Technological advancements that are beneficial for one party, may not be beneficial for all. Situations to consider would be AI (Artificial intelligence) taking over human jobs, the auto industry, education and the effects of technological advancement on students.

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| **Pros and Cons of AI in Different Sectors** | | | | | |
| Device | Pros | | Cons | | |
| Vacuum cleaner | * Cleans your home when you’re not there * Easy storage * Schedule cleaning in advance/wifi | | * Expensive * Crash into obstacles * Takes a long time to clean * Not as thorough as manual vacuums | | |
| Facial Recognition | * Protect against crimes * Find missing person * Limit touchpoints * Strengthens security | | * Individual privacy- stores a picture of authorized users * Factors that can cause inconsistencies * An error could allow someone access to personal data | | |
| Self-Check-out | Business | Others | | Business | Others |
| * Reduced payroll * Could expedite lines=satisfied customers | * Shoppers can ring their own groceries * Less human interaction/intervention * Less people touching purchases | | * Theft-less control * Expensive | * Employee termination * Customer confusion/training * More touch points |
| Automobiles | * Self-driving * More efficient travel * Decreased traffic flow | | * Job loss in transportation sector * Hackers and cyber threats * Moral dilemma * Driving laws. | | |

Innovators in the IT industry are developing artificial intelligence to eliminate human tasks, such as vacuuming, facial recognition, so users no longer have to manually input a password into a device, search recommendations, self-check-out at grocery stores, or even driving.

Advancement in modern technology poses advantages and disadvantages and shown in the table above. Advantages and disadvantages are based on perspective and depending on the party affected will determine if the technological advancement is advantageous. Many of these topics are still up for debate depending on the sector affected and the morality of applying AI to it. For example, some individuals do not trust their car to drive itself and some individuals to not trust AI security.

Artificial intelligence has gained popularity in the education sector among students and educators. AI can be used to personalize learning approaches, adapt to the student’s level of knowledge, speed of learning and goas so that the student is getting the most of their education. AI assisting in the tutoring and grading of student work and allows a much quicker turn around for students to have their questions answered. The biggest benefit is the 24/7 access to learning. All of these factors sound great, however, some students learn better with interaction with a person, some AI responses do not satisfy what the student’s question.

Artificial intelligence provides the same benefits to educators that is does to student. For example, AI can allow an educator to personalizing courses based on their students’ abilities, whether it is an individual student or the class as a whole. AI can generate responses and grade student’s work which allows more time to the educator to focus on lesson planning and improve student engagement. The modernization of technology has led to education breaking out from a classroom setting and can now be done virtually anywhere.

Technology continues to evolve and innovate each day, but determination of whether or not the innovation is beneficial I based on the those affected by it. Not all innovations will satisfy everyone and different perspectives must be considered when implementing new technology. There are times when technological advancements occur and the world has no other choice than to adapt and accept it. Artificial intelligence appears to be the future of technology but the question arises of whether or not humans are willing to trust, and give control and decision making over to AI.

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