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MEDST 255 New Technologies

FINAL EXAM

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**Essay Question I.**

**New technologies have always produced unintended consequences. One result of this would be how UX designers and engineers face a number of new ethical challenges today with the rise of technology regarding our interaction with it and dependence on it.**

**What is the primary job of a UX designer? Discuss the principle ethical quandaries faced by UX designers. What is persuasive design? Discuss the ways you feel this positively and/or negatively affect user behavior.**

The primary job of a user experience designer is to enhance user satisfaction by making a design so straightforward that anyone can get right into it, high in accessibility so everyone can access it, and make sure there is pleasure for the user derived from interacting with the product. Being a professional at designing user experience is helpful for those new to technology and profitable by getting people with addicting personalities on a product. With that being said, a UX designer can exploit the public’s wants and needs to get more people involved with a certain product. Such an ability, to get the masses involved with a certain product such as an app, is dangerous and can be counterproductive for another’s personal life. These designs can even start replacing the people who create them in factories and throw off one’s professional life completely.

Many ethics come into question as to how far these designs have gone to take over human life and behavior. One ethical quandary is the human cost; these designs are de-valuing work by not only making things easier but automating things as well. The positives to this is that thing as difficult and time consuming such as learning to play a guitar can be replaced by pressing buttons on a plastic controller as corresponding notes come to a screen to simulate playing a musical instrument. That’s a video game example but another thing such as the repetitive nature of assembly on a conveyor belt can be replaced by machines. The negatives for the same examples above however, are that kids can spend their time simulating playing guitar instead of learning and experiencing the real thing, and machines at factories can start replacing workers and get people out of a job.

Another ethical quandary is de-skilling people. Thanks to new designs in technology, people’s abilities and human intelligence can be augmented. Look at Google’s design, probably one of the most straightforward things to do, you only have to type in what you’re thinking of and can get loads of information on the matter; anybody can know everything without learning it. Another case of de-skilling is the AI assistant on some aircraft systems such as the Boeing Dreamliner & the F-35 Lighting II. The aircrafts have become so advanced that there needs to be this technology to help the pilots. The positive for systems like this, and even for AI assistants in cars, is that it can reduce mistakes and improve the safety for a voyage. Negatives can also be viewed for such a technology though; now less skilled operators can start replacing more skilled one and drivers can start taking less into consideration when they should always be minding the road. More tech in vehicles can create more distractions for conductors, which brings us to another ethical quandary: the danger of making more distractions, and the danger is real.

The final ethical quandary is the erosion of privacy. Due to these new designs, a lot of information is asked to a certain user. You must give information to get information when it comes to making a profile on an online website or using an app. Though characteristic and personal information starts to become a lot more public online, there is other new technology that can put surveillance on people. A positive to surveillance is that it can be put on your elderly relative and tracking what they do can be a safe way to keep them safe and healthy. A negative to surveillance can occur if it’s implemented on your teen child; a technology thought to be safe, but there is a consequence of heightened angst, no child wants to be monitored by their parent(s) 24/7, it can affect their behavior negatively.

**Essay Question II.**

**The rise of digital technology has had a massive impact in the international creative community. Small digital video cameras and editing software have made it easier than ever for aspiring filmmakers to make a movie. Inexpensive recording software has done the same for musicians. Digital photography now rivals the traditional chemical process for resolution, while image manipulation is simpler and more sophisticated than ever before. Ultimately, the Internet provides a worldwide platform for artists of all stripes to share his/her work.**

**What are some of the core characteristics of the digital world? Discuss how these have impacted the arts. What are some specific developments that have impacted artists? In what ways are they unrewarding and in what ways are they beneficial?**

Having the arts move over to the digital world has been fantastic for more people to get into the arts industry. Since most people in developed countries are electronically connected via a computer (or even a phone), people can get material in an instant; capturing a decent to high quality video is now as easy as taking out your cellphone from your pocket at any time. Also, with new format technologies, such as Adobe’s program Media Encoder, people who own the software can format a video to any other kind of format to fit whatever kind of editing sequence or video need. Plus, on the web, people can find a YouTube converter online and convert a video, usually formatted as a flv file, to a mp4, mov, or even an audio only mp3, essentially any format a person wants! Plus, these video files such as mp4s and mp3s can be played by most computers.

Also, arts in the form of videos, audios, or words can be put on a public forum for all to see and modify. This makes art all interconnected with such websites like Facebook, anyone can share any thoughts, expressions and/or criticisms on anything. There are public interactions on many websites with comments on YouTube and posting to a thread on a public forum and this can give people feedback on their thoughts and arts that get easily posted. And, all of this interaction gets tracked by the sites and companies that give people the ability to do these posts such as YouTube, that counts the amount of views a video gets and gives the video poster the ability to see all of the minutes spent on his or her channel.

This move to digital has saved so much time and affected the cost to do arts for an individual. When people shoot footage or even take selfies with their phones, it can be uploaded to the internet in an instant. Before digital, people had to develop film photos and if they wanted publicity for it, they had to pay to put it in a magazine or something. In the film industry, a lot of new professionals have been making the switch to digital because film has been an outdated process that can be a hassle for some. Plus, shooting digitally can come easier for new individuals that want to learn how to shoot footage. That phrase itself, “shoot footage” is also an archaic term if talking about digital; footage now has become digital files of the pictures captured. Having all this material on the computer can also let people store things instead of having physical film reels around a space physically.

The arts have never been easier to make public by the public ever before. It can be alarming for old professionals because now every art market (such film, photo, expressed opinions) is beginning to get over-saturated with material. Plus, now an any kid with a phone and a great idea can record something and overshadow serious professionals. It’s a new generation of arts being done and those who can adapt to the new mentality of the digital world have an up on the culture today.

Those artistic people who grow up in this digital age, and that usually can’t afford to pay for the expensive things professionals put more money into, can get a benefit. Or people with good art ideas, like commenting on our current pop culture, have an easier way of getting their material out there, such as memes. Memes get notoriety from connecting with people who understand a feeling or feel a sense of nostalgia no matter how recent. There are meme pages on Instagram that have hundreds of thousands of followers, with some reaching a million. Memes have reach a notoriety and feeling connection that they can be considered art no matter how much an older crowd wouldn’t accept it. Plus, all the interactions with each meme; the likes it gets on Instagram or Facebook, validates its effect on pop culture today, becoming a new art.

**Essay Question III.**

**Human enhancement technology converges nanotechnology, biotechnology, information technology and cognitive science to improve human performance, attempting to temporarily or permanently overcome the current limitations of the human body through natural or artificial means.**

**Discuss some specific developments in human enhancement technology. Do you have trouble with the idea of these technologies making us stronger, faster, better? Do these advancements come at any cost? Such as privacy issues or a question of morals? What technological innovation do you think we need most and why?**

Human enhancements are usually something out of a science fiction movie, but technology has advanced for enough to start making it into a reality. Human enhancement technology can be considered whatever repairs humans or whatever enhances their abilities; it can cure people of illnesses, replace limbs, revive lost senses, things that benefit humans. It has been used so far for something like 3D printing human parts such as teeth or ears to give back what some people might have loss. 3D printing also has given some parts animals may have lost or broken, such as Nate Calvin of the Kinetic Engineering Group. Calvin reconstructed and put back on the beak of an eagle who had unfortunately cracked its beak. Making new parts for animals can lead to innovations for humans but will it be proper for the citizens of the future?

With human enhancements, disabilities as well as illnesses can be treated, and some parts can be completely substituted. Just like modern medicine can treat some things now, new human enhancements can treat things never before treated or done efficiently. However, with doctors dedicated to treating illnesses and disabilities, there are also doctors such as plastic surgeons that rich people can afford to enhance their appearance. With that being said, technologies to enhance human characteristics and capacities can easily be used in humans with the fattest wallet. There’d be a new market for elites to enhance their abilities and this could lead to a wider gap of upper and lower class people with the upper class not only being richer but also become some sort of advanced human being. This can be a real problem with the racism and classism that happens in our society.

Michael Chorost is a total advocate of human enhancements saying that the future is about giving our bodies entirely new things. He talks about technology being able to let us know what others are feeling and vice versa which he calls “telempathy.” It seems to be a combination of the words “telekinesis” and “empathy” and it’s essentially a mixture of the two; letting others know what you’re feeling through thought and to share the feeling. Something like this is could be very well needed for the military; a military troop can stay in touch with each other if they are in an operation and need quick communications with each other if there are enemies nearby. But this could backfire and hurt the entire squad if one member is in peril, it could affect the whole group with feelings and everyone can get compromised. Off the field and in public, it can also be dangerous, people can go ahead and read other people’s minds or give them their thoughts, it can be a total invasion of privacy.

All of these technologies can be pioneered with the use of nanotechnologies which I believe is the technological innovation which we need most. Many things can be solved due to nanotech and though it can also bring many wrongs, it’s the next logical step for computers trying to make their parts and processors as small as possible. Things get very discrete on the nanoscale though; with nanotechnology’s benefits, there can also come some negatives, and not through the use, but with nanotoxicology that may emerge with this new tech. Nanotechnologies use energy and its byproducts as a result can be lethal or good, but no one is exactly sure, it’s so small (on a nanoscale). But science continues to power on and these technologies can be very present in our lifetime and it’s our responsibility to use them appropriately.

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