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| New Technologies  Camille Seaberry, Final Exam | May 14, 2019  MEDST255-SP2019 |

Read all the instructions in the final exam instructions carefully before beginning! You’re required to write into this document, and adding the necessary pages. Re-save this file as your own, and submit it to me on ***MAY 14, 2019.***

**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.**

Persuasive design is an area of design practice that focuses on influencing human behavior through a product's or service's characteristics. Based on psychological and social theories, persuasive design is often used in e-commerce, organizational management, and public health. (Interaction Design Foundation). A UX Designer, better known as a User experience designer, is a person who ensures user accessibility and satisfaction in using newly designed software such as games, apps and others. This job is usually carried out by multiple people depending on the magnitude of the project. UX designer’s work is usually filled with persuasive designs that can have detrimental penalties. With all the new technological advances, UX designers face several ethical challenges when creating and producing today’s new technology such as human costs and devaluing work, deskilling and influencing user’s behavior.

One problematic outcome of UXD work is human Costs and devaluing workers work; like the tedious tasks of answering emails or taking away human jobs and devaluing their work. An example of this, I was watching the 2015 NBC hit tv show *Superstore* the other day and it was making fun of this same job devaluation. The regional managers were implementing a new tool that allowed shoppers to merely scan an item in the store and they would immediately receive all the information they needed. This led to the less need for in store workers and hour cutbacks. As the episode played out the in-store managers started to feel bad because the workers were complaining about why they need their hours and what it was going to do to them and their families because of the cutbacks. Also, it heavily influenced the workers to become lazy. Instead of cleaning up and taking care of the store like they were being payed to do they created and played a game using the new scanner. Like this scenario it is a reality in brick and mortar stores all over. Within the episode there was a point where the assistant manager told a customer it would be easier and cheaper online to purchase a certain item. They then exchanged number because the manager said if I send you a code you and I can get 25% off our next purchase. I’m sure it wasn’t in the UXD’s mind to make workers jobs obsolete, but it sure made customer’s experiences a lot easier.

Another unintentional effect of the UX designer’s designs is the deskilling of qualified personnel. The smarter they make computers to avoid human errors the less training needed and in turn the less skilled they will be. For example, in the documentary *Digital Nation,* Rachel Dretzin and Douglas Rushkoff show a military recruiting center that advertises to teens via video games war simulations conveying just how skilled you need to be for these jobs. Earlier in the documentary they show soldiers in uniforms flying drones from indoors through a computer screen like that of a video game. Though the soldiers were safe indoors there were real lives being affected by their choices in the field. In this situation technology improves safety but it also runs the risk of replacing skilled operatives with less skilled ones.

Other unintentional effects the UX designer’s designs are influencing user behavior which in turn causes and aids the erosion of privacy. For instance, an app called Life360 for iPhone users was originally marketed for people to keep in touch with their families no matter where life takes them. Through digital road maps and notification pings their constant location is always made know to your family. Also, this allows the ease of constantly knowing the whereabouts of the phone’s location just in case it every gets lost. This may seem like a very convenient app, but it also has a very dangerous temptation for controlling parents. For instance, a friend of mine who is 20 has a very controlling mother whom she told me tracks her whereabouts at all times via Life360. At first, I didn’t believe her until the time a group of us went to the mall and upon our return to school her mother calls and tells her she’s going to be late for her next class. Again, the UX designers designed and made this app to appeal to family connectivity and safety assurance not to assist in stalking and controlling your children’s activities daily.

These technological advances are helpful in some cases but can also have the potential to harmfully influence the users and innocent unsuspecting bystanders. “With each new capability comes added consequences” (A. DeFelice). The dangers of distraction via technology are probably one of the biggest ethical quandaries of all. The distraction of technology weighs on the human mind and causes impending dangerous outcomes. Like texting and driving or typing on the computer and getting pop up notifications that interrupt your train of thought and end up aiding to your confusion.

In conclusion, UX designers face several ethical challenges, when creating and producing today’s new technology, such as human costs and devaluing work, deskilling and influencing user’s behavior. The question is should they be held accountable for unintentional impending harmful effects it can have on users of the product? I feel UX designers built in influences make it hard for users not to abuse these new tools given to them because of how enticing it is to know where your child is at all times to ensure their safety, or to ensure parental control for when you aren’t around to parent. I also believe it is up to humans to be humane about the way in which they engage and use these new tools. We must be able to think for ourselves and be able to resist the ever-tempting temptation to misuse.

**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 and new tech developments have impacted the arts and creative culture. What are some specific developments that have impacted artists? In what ways are they unrewarding, and in what ways are they beneficial?**

Within the rise of digital technology comes the age of the prosumer. From smaller digital cameras to the accessible web platform, to the no experience needed software, every step has aided the amateur into becoming the producer. Each advance has affected the artistry of the professionals and made its value decrease and or increase. The rise of digital technology has “changed, enhanced and affected the art” distribution over electronic networks, producing editing software, video and audio, that gives everyone an even playing field in order for them to create new and innovative art. Digital technology has transformed the old ways of creating art due to the functions of its core characteristics. Some of the core characteristics of the digital world are that it’s electronic, networkable and interconnected, because of this it greatly impacts the art and creative culture in negative and positive ways.

The first way the digital world impacts the arts and creative culture is through its electronic capabilities. Unlike old media, with digital media you can duplicate and create art without even having the necessary skill set as a professional. In many ways, photographers can be negatively and positively affected by the duplication and remixing of their artwork. Through duplications it is legally hard to configure what is the original and what is the copy. An example of this is the case study of the Molotov Man, a digital picture that was taken in Nicaragua, by Susan Meiselas, and was a part of her celebrated photo essay on the revolution, published by Pantheon in 1981, of a Nicaraguan rebel. This image was later appropriated by Joy Garnett in 2003 and put on display amongst others in 2004. The images were collected from the internet and stored away in a folder on her computer for months so she could forget about where she got them from. Her intention was to make a series of human figures in extremis that she considered her Riot series. Note, all the paintings she made came from photos that originally didn’t belong to her. Her version of the Molotov Man is rendered larger than life- the painting is six feet tall. As the Molotov Man was on display, at a gallery, Garnett received notice of the original photographer being Susan Meiselas and was asked if Susan was aware of her use. With further investigation she noticed the original photo was more of the photo than the fragment of the photo she had sampled and remixed. After finding out the meaning behind the original photos, she could care less about giving credit of obtaining permission for further use. She was then contacted by Susan’s lawyer. She communed with her online group of her fellow art appropriators that then turned this incident into a “copyfight”, as a kind of solidarity campaign. Soon all her online associates were copying, mirroring, remixing and duplicating the image and in turn creating a campaign known as the “Joywar”. This affected the original photographer negatively because throughout this ordeal the meaning behind her work was being lost and watered down. A positive effect would be that this in turn raised the knowledge of this image now when people see the Molotov Man they are aware of its origins. Problems that arouse from this were the distinguishing between what is real and what is fake and if it’s so easy to recreate what is the value of the original work. The skill of the photographer’s eye and her overall meaning for the photo are becoming obsolete. In turn all the duplication and alterations became something that is fundamentally different from Susan and Joy’s original intentions.

The second way the digital world impacts the arts and creative culture is through the way it is networked. Using the previous used case study, the remixed Molotov Man was widespread because of its original accessibility. The original was copied and fragmented then reimagined by Garnett who in the first place searched for an image that represented the human extremis that she was looking for. Through a quick google search via the internet she had instant availability to this image that she then saved and later changed the format of. The distribution of this image was aided by the interconnectivity of the web. The web made it available so it could be seen, experienced and interpreted in different ways by different people. The story of the Molotov Man reached France, Italy, China etc.

The networkability also forms a way for creator who intentionally create work that they know will be turned into other works of art with or without their permission. These works are published on platforms like creative commons, freesounds.org and YouTube- making it easy for artists who want to accurately appropriate works of art and or media. The interconnectivity of the digital world opens the avenues of modification and makes it easy for an artist to distribute their art for free all over the world. For instance, artists that use platforms like YouTube and Facebook to distribute their work can take inventory on what art, video, text or graphics are popular. They can also receive the feedback of the viewers opinions, professional or not.

These core characteristics are making positive rewarding waves in the arts and creative cultures field. In the documentary *Artistry/ Technology*, the artist Kehinde Wiley says the rise of digital technology “liberated an entire generation of thinkers, movers’ and creators. Tech for black and brown people all over this globe created the ability to communicate, connect and gives tools to the amateur.” As I watched this documentary I resonated with this statement. There are so may amazing “amateur” artists out there that wouldn’t have had the chance to express themselves and get their names out there if it wasn’t for the rise of digital technology. Giving cheap, free innovative tools to those that can’t afford them is a great and exciting thing because there’s so much amateur work that has yet to be discovered.

With the good there is also the bad. By giving everyone access to these tools it creates an “ocean of garbage” (Andrew Keen, Author). In the sea of amateurs, the potential professionals work will drown, unless you’re specifically looking for them.

In the documentary *Artistry/ Technology,* there are some that believe the rise of digital media have distracting effects on us and we must be able to put the smartphone down because “we are spending too much time on our cell phones and not enough time with our families” (Scooter Braun, Entrepreneur). MIA, musician, sates “not having a smartphone or the latest gadget is like being completely disconnected from the world and it’s equivalent to the seclusion and remoteness to that of a monk in China. She believes for a teenager it would be hard to sustain from new technology and that in 20 years’ time they will be trying to hang on to the concept of privacy.”

In conclusion, the rise of the digital world has greatly impacted the arts and creative culture in negative and positive ways because of its core characteristics: it’s electronic, networkable and interconnective. Through all the increasing benefits due to these features it also suggests that we are losing something in the process. The value of art and the increasing distractions of communicating while not communicating suggests we are losing the human side of our humanness. We are “constantly taking pictures of our food and our lives instead of being in our lives” (Susan Sarandon).

**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 are your thoughts on the premise of these technologies making us (humans) more connected to technology? What technological innovation do you think we need most and why?**

Human enhancement through technological advancement has been in the works for many years. Scientists and Chemists are making advances through technology to temporarily or permanently overcome human limitations through natural or artificial means. In order for scientists to reach this level of advanced technological incorporation they combine nanotechnology, biotechnology, information technology and cognitive science. There have been many human enhancement developments through bioprinting and prosthesis via 3D Printing.

One of the human enhancements has been the bioprinting of a human blood vessel. At Wyss Institute School of Engineering and Applied Sciences, they built one of the first blood vessels through Bioprinting. A blood vessel is what your blood circulates through inside of your body; they also transport glucose and insulin. They, arteries, carry blood away from your heart and their very small branches are called arterioles. Blood vessels can be damaged by the effects of high blood glucose level and this can in turn case damage to organs, such as the heart and eyes. Being able to create stronger and healthier blood vessel to withstand high blood glucose would and could be a game changer for those who suffer from problems dealing with damaged blood vessels, like diabetics.

Another human enhancement development would be the 3D Printing of limbs, known prosthetics. Through the technology of 3D Printing we are able to create exact replicas of our missing limbs and arm or a leg of a person. Through it doesn’t stop there. There are even limbs that are created for animals. For example, there’s a case where Nate Calvin, the Founder of Kinetic Engineering Group, made an injured Eagle a 3D printed beak. (A. DeFelice). The poor animal had lost the upper part of its beak leaving it handicapped and unable to eat. The need for this type of advancing technology is evidently a necessity in these specific cases.

Though there are good uses and reasons for using this type of enhancement there is also a way to perversely use it. For instance, Lee Cronin, a chemist at the University of Glasgow, wants to distribute prescription drug. Cronin describes a prototype 3D Printer capable of assembling chemical compounds at the molecular level, incorporating nanotechnology. Patients would go to an online drugstore with their digital prescription, buy the blueprint and the chemical ink needed, and then print the drug at home. (A. DeFelice). This type of advancement makes it hard for humans to refrain from the temptations of perverting this opportunity. They could make copies and multiples abusing it by using the drugs themselves or selling them for an income. Though the idea was developed with good intentions, chemists, like UX designers, must think beyond the scope of their projects and think of the unintended consequences that may arise with this advanced technology.

Then there’s the question will these advances be the key to the Singularity, where machines and technology are uncontrollable and in turn cause unpredictable changes to human civilization making humans immortal of human obsolesce? I guess it depends on how you look at it. If there are more technological advancements being placed throughout civilization that is taking over human jobs and the need for human interaction, then humans may very well become obsolete. In a sense relating back to my *Superstore* scenario from essay question #1 humans may act out in unpredictable ways. Instead of embracing and utilizing the new technology they may slack off and bring about their obsoleteness. On the other hand, the growth of technology regarding human enhancement that converges nanotechnology, biotechnology, information technology and cognitive science in order to help people become stronger and aid their disabilities whether it’s prosthetics, blood vessels, bone transplants etc. I think that would be great.

Is there a price to pay for this technology? Questions arise like morality and privacy issues. If we are connected to technology are we advancing or is technology taking over, and in turn will we lose our humanness? In accordance to programming and the brain our human capacity is limited in space, like a digital artwork compared to a physical one.

Picking what tech innovation is most important is a tough one because of my religious beliefs. I believe we should live out our lives naturally as God intended for us to, but I also believe that God wouldn’t have given us the ability and knowledge to come to this point of technological advancement if he didn’t want us to use it for good. So, based off that I would say, depending on the intentions of the use, the most important and helpful technological advancements I think are needed are the ones that help the human body because it’s needed in a society of human beings, to help cure our illnesses and make us healthier people. For example, if there is a life that needs to be saved or forensic evidence that needs to be recovered that can only be recovered by a machine then by all means I’m for technological innovation. On the other hand, when this type of technology is abused, and I believe there is room for abuse, in the way of tech that does human jobs, or the advanced tech that gives you access to others privacy without their consent, I don’t agree to that. Most of which already exists and causes a division and pulls on the moral ethics of innocent bystanders which will create a world of uncertainty and laziness. Here’s a thought if the technology does everything for you and everything you use to do what’s left for you to do.

This brings to mind the 2009 Sci Fi movie the *Surrogates,* starring Bruce Willis, where most of humanity, except for a few, had replaced their bodies with robotic alternates that were stronger, faster and more attractive than the actual person “controlling” them. The humans stayed and lived in doors on their computers, in a type of virtual reality set up, while their surrogates lived their daily lives for them; work, school, grocery shopping etc. This movies hints and warns at the potential problems that can arise with the different types of abuse that can occur through the advancements of the technological world. “The most successful Sci Fi stories have completely dystopic scenarios or finales. Sci Fi stories alert us to explore the possibilities of technology going bad and it is in turn because of the story that we take steps to prevent these wrongs from occurring. Science Fiction films are effective because warning messages are easier to process through storytelling. It’s a way to play with the dystopian and utopian alternate realities without having to deal with the complications of reality.” -Dr. Neil deGrasse Tyson.

Cited

Essay Question I.

1. DeFelice, A. “255\_WEEK03\_Producers Consumers”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

2. DeFelice, A. “255\_WEEK09\_New Media for Good and for Naught – Ethical challenges for the UX Professional and Beyond”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

3. "Scanners." *Superstore*. NBC. HULU, NYC. 9 May. 2019. Television.

4. DeFelice, A. “255\_WEEK04\_Internet New Tech Everywhere”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

5. Life360-<https://www.life360.com/>

6. Interaction Design Foundation- <https://www.interaction-design.org/literature/topics/persuasive-design>

Essay Question II.

1. DeFelice, A. “255\_WEEK10\_Art & Technology”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

2. Liberatum. Artistry/Technology. YouTube. YouTube, 8 Apr. 2015. Web. <https://www.youtube.com/watch?v=fKhETsSoT_c&t=240s>

3. House of Radon. Press Pause Play. Vimeo.Vimeo, 5 Jan. 2012. Web. <https://vimeo.com/34608191>

4. Garnett, Joy, Meiselas, Susan.“On the Rights of the Molotov Man.”New York, Harper’s Magazine. Feb. 2007. Print. <http://firstpulseprojects.com/On-the-Rights-of-Molotov-Man.pdf>

Essay Question III.

1. DeFelice, A. “255\_WEEK09\_Technology Everyday - Smart homes, DIY and pragmatic programming. Creating applications through coding, micro-processors, and IFTTT”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

2. DeFelice, A. “255\_WEEK09\_Creative & Future Thinkers (PART 1)”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

3. DeFelice, A. “255\_WEEK09\_Creative & Future Thinkers (PART 2)”. Kiely Room 315, Queens College, NY. 16 October 2018. Powerpoint/Lecture.

4. National Geographic. Neil deGrasse Tyson on a Dystopic Future. YouTube. YouTube, 26 Oct. 2015. Web. <https://www.youtube.com/watch?v=M09rKsXwTRo>

5. "Scanners." *Superstore*. NBC. HULU, NYC. 9 May. 2019. Television.