**Lisbeth Lopez**

MEDST 255

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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.**

*User experience (UX) designers primary job is to optimize user experience by improving usability, accessibility, and productivity. They are responsible for creating a product that will provide meaningful and relevant experiences to users. They also need to keep in mind that they need to address the consequences that these new technologies may bring. There are many phases that exist in the reason the application is being created. Task analysis is going through different user scenarios, being able to lay out tasks from a user’s perspective. The design of the product goes hand-in-hand with creating a persona, different storyboards, and usability testing.*

*Usability testing is done during the design phase in order to see if an actual user is able to get their way around with the application. Beta testing puts the completed product in the hands of a user to gather feedback.*

*Human costs and de-valuing work is achieved by optimizing system design, augmented human ability, and automation in elimination of dangerous, repetitive and tedious work. The increase of automation has cost the work’s intellectual and emotional value to decrease. Order automation is sweeping the quick-service industry with self-service kiosks and mobile ordering apps being used in chains like McDonalds and Starbucks. Work is being de-humanized leading to a decrease in human interaction. While automation comes with benefits of increased speed, accuracy etc., the malfunction of automated systems poses great operational risks if workers are unable to perform tasks due to deskilling.*

*Deskilling is the advancement in the development of powerful support systems that augment human intelligence in demanding environments. The users’ decision-making skills decrease due to reliance on automation, which takes over, and as a result humans stop using and forget the skills needed to perform these prior tasks.*

*The deskilling effect by dividing professional knowledge to declarative and procedural knowledge and examining the components affecting these two types of knowledge. For example, knowing that a bicycle has two wheels, a frame and a handlebar is part of declarative knowledge. On the other hand, knowing how to ride a bike is part of procedural knowledge.*

*Influencing user behavior is having the potential through design to affect human behavior either positive or negative creating a product for a user’s best intention. For example, kid-trackers. In an episode from Black Mirror, a mother was able to have a chip inserted in her daughter’s brain being able to control everything that she did. Through an electronically device, similar to an iPad, by just a click she was able to see what her daughter was seeing through her own eyes, she was able to block certain things she didn't want her to see and where her daughter was at all times. As the daughter grew up into a teenager, she stopped using the device knowing that she was invading her daughter’s privacy. But one day she didn't know where he daughter was and reused the device again, which led to her having issues with her daughter. She found out that she was pregnant and gave her daughter an abortion pill without her consent. Consequences lead to one another and her daughter figured out that her mom was controlling and spying over her again with this device, jeopardizing their trust.*

*The erosion of privacy is when technologies that allow the constant monitoring of individuals for the sake of their safety actually make the monitored individuals feel a loss of privacy. In today’s world, we are never left alone. We spend so much time online browsing and accepting terms and conditions without even reading any of it, allowing third parties to create digital copies of ourselves. These digital copies of ourselves are used to predict our own behaviors before we even know what will happen next.*

*The dangers of distraction are the convergence of technologies taxing our attention spas in a way that threatens the limits of human capabilities. For example, while driving we use a GPS system that can take our eyes off the road and distract us from the main purpose of driving, leading to life-threatening situations. We like to multitask thinking we can complete several talks simultaneously, but we’re really just task-switching, hopping back and forth through different tasks interrupting ourselves.*

*Persuasive design helps designers apply psychology to help UX designs dive into how humans interact, think, react, and make decisions. It explores what motivates u and what drives us towards an action. By applying psychology, designers are able to understand how to communicate more precisely, guide users in making decisions and reaching their goals, and creating new habits. Users normally take the route that makes the best sense to them, user behavior is embraced in the complexity of the full experience that each user takes. I think persuasive design can impact a user in both a negative and positive way. Everyone is different and will take the path that they think is right for them. Especially in this time of age, advertisements are everywhere trying to influence us to buy something or do something. An impression goes along way with the presence, user-friendly, etc. an advertisement gives off.*

**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?**

*The core characteristics of the digital world can be defined as electronic, networked, and interconnected. Digital world has switched physical form to electronic form. For example, yellow page advertising books has changed to digital advertising online through social media, blogging, google ads, etc. Books have turned into audible books, ebooks, pdfs, etc. Buying DVD’s turned into streaming online and not having to go to the nearby Blockbuster store to rent a movie. We can make copies and easily distribute anything online because it’s electronic, it’s easy, we can do whatever we want. We can simply keep an original copy of a form and create something complete different with it. We have endless possibilities available in the palm of our hands. We have more space on our electronic devices, where we can have multiple tabs open, being able to multitask back and forth. Another characteristic of the digital world is it’s networked. It can easily be moved over worldwide being instant and easily available to us/anyone, can be formatted in different ways, content is interactive, and can be seen, shared, and changed among all. For example, since content is in an electronic form, we can easily share a Google doc with anyone allowing us to edit a simple document at the same time as someone else and saved and downloaded as a different format. The last characteristic is that it’s interconnected. Information on the internet can be moved between many points. It’s open to modification, public interaction, and tracking visits from users.*

*These characteristics and new tech developments have impacted the arts and creative culture in several ways. Rapid developments and advances in hardware such as computers, mobile phones, recording equipment, film equipment, software applications, and networks have taken place. In the documentary, PressPausePlay it discusses the rise of digital technology throughout the past decade. The digital revolution has shifted the creative community immensely. It’s made it easier for artists to share their work online and encounter unlimited opportunities. The easy access to music/video making equipment has increased the amount of content that is being distributed throughout all over the world. The internet changed the way we distribute our work and creativity. Before it used to be very expensive to be able to own any tools, only the professionals would own these higher end equipment in order to produce music, movies, photography, etc. Nowadays, there are more ways to edit and produce movies, music, and more cheaply. Anyone with the right tools can call themselves a composer, a designer, or filmmaker. Social media is another great example of a new tech development that has turned interactive dialogue, allowing users to engage with one another sharing their content, debates, dialogues, and photos. Facebook, Instagram, Twitter, Snapchat, and LinkedIn are all powerful social media platforms that have impacted the arts and creative culture. For example, through Instagram hashtags are very popular in being able to share your feed. Instead of doing research of places to visit in Spain, I sometimes go on Instagram and search for #spainvacation and get influenced by different users photo-sharing the different places they have visited. This also goes for any art, #instaart is a popular hashtag where users share the different art that they see around the world.*

*These new technologies have impacted artists in many different ways. An emerge of digital technologies means digital art emerges and new art being created. Artists have a lot of competition with each other when it comes visual arts, film and tv, and the music industry. The industry is being considered dead because of the loss of value from a lot of artists producing the same content. Anybody can create a track and release it just from their bedroom instead of going to a recording studio. A lot of artists are self-taught. Artists have the power and creative freedom of working on what they are interested in. It makes it very hard for serious filmmakers and musicians to get recognized because everything is now determined by a number of clicks online. It is true that the internet and social media have increased engagement and made art a more participatory experience among all and has played a major role in broadening the definition of what is considered 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 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 technology is the general application of the convergence of nanotechnology, biotechnology, information technology and cognitive science to improve human performance. Human enhancement technologies are opening up tremendous new possibilities but it also comes with some risks. These technologies are upgrading and restoring new abilities for medical purposes. With human enhancement we improve ourselves as humans. It is any attempt to temporarily or permanently overcome the current limitations of the human body through natural or artificial means. Such as, organ transplants, powered exoskeletons, and electronically augmented senses. It is mostly used to treat illnesses, disabilities, enhancing human characteristics and capacities, and full substitution. Some specific developments in human enhancement technologies include reproductive technology, embryo selection, enhancing drugs, cognitive enhancers, and plastic surgery. Laser eye surgery returns people’s vision back to normal 20/20, but what human enhancement allowed us to see in the dark? With the rapid developments that have been undergoing for human enhancement we can’t predict what will be happening in the future.*

*Although the idea of these technologies making us stronger, faster, and better is beneficial in many aspects, it comes with various issues. For example, athletes who get these enhancements will have an advantage over their components. This raises the questions of what dictates these medical procedures as acceptable for medical reasons or for enhancement purposes. Another issue that may be raised is that such technology may only be accessible to those with the finances or resources. The use of technology for such a specific target and for selfish gain gives these individuals an unfair advantage in society. Furthermore, it may contribute to the widening of the social gap between the rich and the poor, a prevalent social-economic issue in today’s society. I do believe that these enhancements would improve an individual’s quality of life but worries me about the negative costs they may bring. Individuals that have undergone enhancements should be monitored for any possible health effects that may occur. These human enhancements are making us more connected with technology because it’s helping us improve as humans. For example, apple watches helps us check our heart monitor, keep us up to date with our apps and text messages, etc. It is attuned to the user’s presence, unlike any other Apple device. Since it’s worn on our wrist at all times, the design was meant to connect with the user’s presence. Even artificial intelligence simulates human intelligence with machines, especially computer systems. Computers are able to act as humans, having several different applications including software simulations. Technology is so advanced that self-driving cars are have been created. Transhumanism was created devoted on the research of human enhancement, to help improve human sensory reception, emotions, brain capacity, and human health. Super soldiers are in the process of being created to be able to defeat their enemies. The soldier will be fictional and capable of operating beyond normal human abilities. I think super soldiers would be a great technological innovation because human soldiers wouldn’t need to go into war and have the risk of being killed. Medical technological innovations are also very crucial for human enhancements, helping us improve as humans and proceed many different medical surgeries.*