**Natasha Singh**

**MEDST 255**

**5/9/18**

**Read all the instructions in the final exam instructions carefully before beginning! You’re required to write into this document, adding the necessary pages, and resave the file as your own.**

**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.**

A UX designer is the person that is ensuring the enhancements of the completed product from the start of the idea throughout the distribution. It is not only a one person job; it can call for an entire development team to see this project go through. The primary job of a UX designer is more concerned about the overall feel of the product. UX designers’ primary job is to improve usability and extend productivity. But they also have a responsibility to address the unintended consequences of new technologies, some of them with a clear ethical dimension. There are five principle ethical quandaries that UX designers will run up against: Human cost and de-valuing work, De-skilling, Influencing user behavior, the erosion of privacy, and the dangers of distraction.

In Human Costs and De-valuing Work, so much of the UX discipline’s early efforts were driven by the desire to improve human performance and productivity while reducing errors. They questioned the value of these gains, by achieving optimizing system design, augmenting human ability, and automation, especially as it eliminated dangerous, repetitive work. For example considering the levels of automation found in fast – food restaurants, they have specific concerns about the work being de-humanized, the workers growth being diminished, and the value of rewarding work is stripped away. (Just like the case study of the: “Foxconn Suicides” in china –Tian Yu’s Story)

As for “De-Skilling”, Gigaom has claimed that in over the past two decades there has been tremendous advances in the development of powerful support systems. The positive benefits of this technology can reduce error and improve safety, but at the same time the UX researchers examine the possibility that automation can create a situation where skilled operators can be replaced. For example in aircraft systems, such as the Boeing Dreamliner and the F-35 Lighting II, they have become so complicated that they challenged the human capacity to fly them without the help of an “artificially intelligent” assistant. With this there is a positive and a negative. The positive benefits can reduce the errors and improve safety. The negative impact would be that the UX researchers have to examine the possibility that the automation can create a situation where only skilled operators can be replaced by less- skilled operators.

Influencing user behavior the UX professional must understand that for every product created there will be another deliberately nudges the user to ends not in the user’s best interest. They basically recognize that the human behavior results in sub- optimum choices and actions. And they recognize that they have the potentials, through design, to affect that behavior in other ways in a positive and negative way. An example of this could be a developer trying to sell an application to a parent to build to monitor their teens, this offering enhanced discipline and improvement on their behavioral habits. With a design like this it prompts the parent to invade their child’s privacy and it’s based on suboptimal choices and actions, which affects the behavior.

When it comes to the Erosion of privacy, technologies have been developed to remotely monitor the activities of the elderly, like for example the things they eat and how much they eat, their location, and even when they take their prescriptions. This application is designed to collect your data in order to be used, or link that data to other applications. The benefits of this technologies are so real, because it allows the elderly to live independent or for the parents to be more confident in the safety of their children. But there is a negative effect, because when you constantly monitor that individual instead of leaving one feeling loss of highly valued privacy and dignity because of non-stop monitoring, thus adding consequences.

Last but not least the Dangers of Distraction. This is where the convergence of technologies can tax our attention spans in a way that threatens the limit of human capabilities. It can increase integration of communication, navigation, and entertainment technologies in automotive design. For example now that we have GPS screens, entertainment monitors, cell phones, and stereo systems; with these technologies they deliver unquestionable value and pleasure to the driver and passenger distracting him/her from the purpose of driving, thus leading to life- threatening situations. UX professionals must increasingly consider that there would be no ‘UX’ without users using the technology, and the fate of positive or negative experience s depends upon their decisions.

Persuasive design is any interactive computing system that is designed to change people’s attitudes or behaviors. It is a practice that is based in psychological and social theories which is often used in ecommerce, organizational management, and public health. It is often regarded as a subset of UX. UX has its positives and negatives. The Interaction Design Foundation describes the user experience in seven factors: Useful, Usable, Findable, Credible, Desirable, Accessible, and Valuable. I feel that UX is important for good business because it makes companies be more invested in making sure their users, customers and clients have positive interactions with their product. As always the Users experience for your product will always play a critical role in attracting and maintaining your customer base. Which leads to people experience your products emotionally, and unfortunately, negative emotions are more memorable than positive ones.

**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?**

Digital transformation is all around us. To start off the definition of digital transformation is the change that is associated in all aspects of the human society. It is the transformation stage, this means that digital uses inherently enable new types of innovation and creativity in a particular domain, rather than to simply enhance and support traditional methods. Some of the characteristics of the digital world are inherent in every nature of the digital process and has a significant impact on the arts. There are three core characteristics of the digital world: Electronic, Networked, and Interconnected.

Electronic is one of the three core characteristics. This is where the materials are in the electronics than in a physical form. It does not have to be in a physical form like as in a book, or paining or a photograph, for something to exist as an artwork. In order for the artwork to be created electronically it has recordings from the physical world onto the digital devices. It also manipulates the electronic information that already exists (remixing). It creates, by drawing digital graphics from scratch, and it combines any and all of these processes. This characteristic distinguishes between the real and the fabricated; making the original equaling a copy. The second characteristics is Networked. Since this is in an electronic form, it can be moved over worldwide, this include the internet and mobile networks. The network is instant and available, it is format -able, its content is interactive, and it is seen, shared, and changed. And lastly another characteristics is Interconnected. This is where information moves from a broadcaster to an audience, unlike the radio and television. The information on the Internet can move between many points, and for the Arts it has a number of implications such as to open to modify, its public interactions and it can track visits.

These three characteristics have impacted the Arts in many ways. Its disciplines and practices have different dimensions in their relationship to technology. There are art forms that exist because of technology, such as the digital arts practices and film, and video in the media arts. There are also art forms that are enhanced by technology, this is the new distribution means for music, e-books in writing and publishing, and live performances being streamed worldwide. Writing and publishing, music, film and video and visual arts all have practices involving the production of physical objects that are distributed to the public such as : books, recordings, films, tapes, paintings, sculptures, photographs, etc. This digital transformation allows the artist to replace the physical objects with electronic files, which then displaces distribution over time and between places with instantaneous distribution over networks.

In conclusion the “Press Pause Play” video Referring back to a specific technology that was discussed in the film, they spoke about how the things they can do with computer software in 5 minutes took them 6 months or years, 20 years ago. Which is a proven fact to show you how technologies in improved and changes every year and makes our lives much easier. The “Red Camera” was a big importance, a lot more creativity was raising to the top. And the age group and budget has changed drastically, back then it was older folks who were using it, now it’s younger. This is because younger people found ways to do this cheaply. Giving examples of how a small digital video camera and editing software was the main idea in this video and how our era has made everything so modern.

**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?**

There are many developments in human enhancement technology. To start off human enhancements is any attempt to temporarily or even permanently overcome its current limitations of the human body through natural or artificial means. Human Enhancements refers to the general application of the convergences of Nanotechnology, Biotechnology, Information Technology and Cognitive science. Like for example Organ Transplants, Powered Exoskeletons and Electronically Augmented Senses. Human enhancements are morally for treating illness, treating disability, enhancing human characteristics and capacities. It’s basically a substitution.

One of the most interesting human enhancements is the 3D printing. With this researchers have printed 3D models of the heart. They have also had tissues with blood vessels and Prescription Drugs made 3D. One of my favorite 3D printing is the Bio- Printing for the beak of the injured bald eagle done by Lee Cronin. It was so amazing to see how this bird beak was broken off and how 3D printing made it look and feel so realistic that the bird didn’t even realize it was ever broken. There are four goals to human enchantments’: it enhances cognitive abilities, it enhances physical abilities, modifies psychology, and gets non- human abilities life- span enhancements.

In my opinion everything we create has its pros and cons doesn’t matter what it is. I personally don’t have a problem with the idea of these technologies making us stronger, faster, and better. It just shows how modern technology is getting every year. But I do feel that there is a side effect to all of this. Just like how we take medications for specific problems that we have but even through that medication is helping to cure whatever problem you have it is also having a side effect to your body in many ways. One of my concerns for this would be the 3D printing of perception drugs. I feel like this is a bad thing because this can go into the hands of the wrong people who will then make a business out of it causing innocent people to die by possibly overdosing or even giving them the wrong medication.

Of course any of these advancements come with a cost. According to “*Labnews”* human enhancement could give rise to numerous benefits for employees and employers, these advances can come at significant cost to our society. As stated in the *“MIT Techonology Review*,” the ethical question raised about certain psychopharmacological substances, such as antidepressant medications. This argument holds that some uses may be morally undesirable forms of enhancement because, essentially, they transform the patient into someone else.

In my opinion from what I have learned thus far the most technological innovations that I think we need the most thus far would have to be the 3D printing, only because I believe it helps us humans by making us a prosthetic bone and ear cartilage and a reconstructed jaw. It helps make things that we need in order to survive. It reconstructs our bones and body parts for forensic, and even for heavily damaged evidence that are acquired from crime scene investigations.

**Citation Page**

**Essay 1**

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* An instructor’s lecture: DeFelice, A. “255\_WEEK05\_Policy”. Kiely Room 315, Queens College, NY. 27 March 2018. Powerpoint/Lecture.

**Essay 2**

* An instructor’s lecture: DeFelice, A. “255\_WEEK05\_Policy”. Kiely Room 315, Queens College, NY. 10 April 2018. Powerpoint/Lecture.
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* “PressPausePlay.” *Vimeo*, 9 May 2018, vimeo.com/34608191.

**Essay 3**

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* Healey, Natalie. “Human Enhancement: Will the Benefits Outweigh the Costs?” *Laboratory News*, 4 June 2015, [www.labnews.co.uk/comment/editorial-comments/human-enhancement-will-the-benefits-outweigh-the-costs-13-12-2012/.\](http://www.labnews.co.uk/comment/editorial-comments/human-enhancement-will-the-benefits-outweigh-the-costs-13-12-2012/.\)
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