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New Technologies

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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 responsible for user experience design, which “is  the process of enhancing user satisfaction by improving the usability,  accessibility, and pleasure provided in the interaction between the user  and the product”(DeFelice) A UX designer for an app would come up with a theoretical person, say, someone with little experience with technology, and try to anticipate their usage and needs. In the case of an inexperienced user, a designer would likely try to make the app as intuitive as possible. Eventually the product is put in the hand of beta testers so designers can receive feedback from real-world users.

UX designers face a number of ethical quandaries. One major issue is that of persuasive design, making UX decisions to influence the behavior of users. This can be negative for a number of reasons. For one, UX design can make users do things they consciously don’t want to do. Let’s say there was a site you wanted to unsubscribe from. It might make confusing design choices to deliberately make it difficult or frustrating to trip up users and keep them subscribed. Facebook is guilty of this, burying the option for account deletion and switching around color schemes to confuse those looking to say goodbye to the site (Reid).

Persuasive design can be powerful in ways users are not even conscious of.  Facebook, like many apps, is designed to be addictive, and can be a major distraction, ruining productivity. Distractions are another major issue for UX designers to be conscious of. Frequent use of a technology can rewire the brain, due to the organ’s neuroplasticity (Rushkoff, pp. 38-39). This does not mean that persuasive design is all bad. Designers at Google are adding options to the latest version of Android to allow users to restrict the amount of time used on specific apps, limit notifications, and view their usage habits (Kastrenakes). To many this might seem like hand-holding, infantilizing users. However, with apps designed to be so addictive, it it sensible for UX design to counter the alluring distractions as much as possible.

Another major issue for UX designers to grapple with is that of replacing human workers. Fast food workers are a common example of this. The tasks involved are fairly simple and repetitive. This often raises concerns over the possibility of machines putting countless people out of work. The complexity of the issue increases as the work becomes more complicated and dangerous. What happens if machines become capable of doing heart surgery by themselves at the push of a button? Should society entirely cease training people to perform heart surgery? What is lost when people can rely on machines for both basic and specialized tasks?

Lastly, UX designers must be conscious of the issue of privacy. Individuals are intensely surveilled in this modern era, by both corporations and governments. Designers have a major responsibility to maintain transparency and determine how to appropriately deal with people’s data.  For example, when signing up for a social media site, designers need to decide what sort of information can be seen by whom and how to disclose that to users. Voice assistants such as Alexa and Google Home are becoming increasingly popular, and it can be tempting to use them to constantly listen to consumers in order to get more information on them. People are already being tracked, digitally and physically, by corporations to sell things. Viewing a product just once can cause it to follow you around the web for weeks, showing up in ads on various websites. Should people be permitted to opt out of all of this? What about children too young to make these decisions? What happens to all the data collected when a company shuts down?

UX designers also have to consider their role in assisting governments. In authoritarian countries it could be dangerous for individuals if the government learns of their online activities. Yet even in ostensibly free nations, governments often ask for private information in the name of preventing terrorism. One high profile case followed the San Bernadino shooting in 2015. The FBI asked Apple to unlock the shooter’s iPhone in an attempt to get more information, yet the company refused, citing security concerns (Selyukh). Designers need to decide if they should build a “back door” for governments in all technology, or if this is too risky as it could facilitate hacking by bad actors.

On the surface, it may seem as though UX designers only need to think about making sure their product works well. However, on further consideration, it is clear that there are many difficult ethical issues to consider.

**Essay I  - Works Cited**

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**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?**

The core characteristics of the digital world is that it is networked, electronic, and interconnected(DeFelice). These have had a tremendous impact on art, not only transforming old methods of production and distribution but also creating entirely new forms.

One example of an art piece that could only have existed in the digital age is that of the “telematic dinner party” (DeFelice). In the piece, people in Toronto and Amsterdam were linked up to have a dinner party together. The two tables were linked in ways that were surprising, yet often mirrored the experience of inhabiting the same space. Tapping a glass with a utensil at one table would trigger a motorized identical action at the other table, allowing one to make a toast from thousands of miles away.

The interconnected nature of the internet allows for greater collaboration even on more traditional art projects. Rap collective Brockhampton met on a music forum and began working together, eventually self-producing and releasing three albums over the course of just one year, to sizeable commercial and critical success. The band’s rise to fame was really only possible through the internet as they did not have access to more typical modes of distribution (Tiffany).

Distribution is far different for all artists now. For independent musicians, sites such as Bandcamp allow the sale of songs without the need for an agent or record company. Sites such as Patreon allow content creators to not be beholden to corporations as they can receive funding directly from fans. This means they can create controversial and challenging work that might otherwise scare off advertisers.

That media is now largely electronic has altered the nature of consumption. One could argue that the apparent surplus and ease of access makes individual works of art less valued. In the past, one would visit a record store and buy perhaps a couple of records to take home and spend time focusing on. Now, with access to every song at any moment, content is almost disposable. A recent article in Vulture, though perhaps tongue-in-cheek, reflects current attitudes of consumption with its title: “The Best Shows on Netflix to Use as Background Noise” (McHenry). The article suggests different shows to have playing in the background for activities such as sleeping and cleaning the house. With unlimited access to content for one monthly fee, high quality programming is devalued enough to be used for little more than white noise.

An unrewarding aspect of the new reality is that the internet cycle moves quickly. Everyone can be a producer on social media, posting text, photos, video, and audio with ease. Something may be popular for only a very brief period of time before its saturation makes it unappealing. So much content also means high quality work can be drowned out. Because everyone has an opportunity it means there is much more competition. The low barrier to entry means people who are not making a serious effort can distract from those who are.

Overall, the internet has proven to be a powerful tool for artists to create and distribute content. It remains to be seen what sort of cultural shifts are to come. Perhaps virtual reality art will take off, or maybe physical mediums will see a huge resurgence in popularity. Either way, it is clear the internet has made massive changes in the way content is consumed.

**Essay II - Works Cited**

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**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?**

From the earliest days, humanity has used technology to enhance its abilities. From spears that enhance reach and make up for a lack of claws all the way to machines that that allow people to soar through the air like birds, technology has been a powerful force in overcoming the natural limitations of the human body.

One major recent innovation is 3-D printing limbs **(**Birrell). When a machine breaks it is usually fairly easy to get a replacement part as it shares a standard size and shape with other machines. Humans, however, are much more varied. As such, they require specially fitted prosthetics in the event that they lose a limb. 3-D printing makes it far simpler and cheaper to produce these limbs. At this point, most efforts in this field are focused on achieving similar function as typical human limbs. But what about making limbs that perform better than organic ones? Controversy arose over runner Oscar Pistorious’s prosthetic legs and whether they gave him a competitive advantage in racing (Rose). As technology improves, this will likely become a bigger issue in a wide variety of sports.

Though people are not necessarily conscious of it, there are many everyday examples of technology being used to augment human ability. One common fix is for eyesight. Technology as old as eyeglasses or as recent as Lasik surgery allow people to see far better than they would naturally be capable of. It is unlikely people would have ethical issues with things like that. But future technology could raise major questions.

One potential ethical issue is that human enhancing technology could result in greater social stratification. Through the use of gene editing, parents could manufacture perfect children. There is already a major wealth gap, and it is likely that only wealthy people would have access to this technology. This could worsen the gap, creating a world in which the rich have perfect health and augmented intelligence while the poor are left to suffer. Gene editing also raises difficult questions about what is considered desirable in a person. For example Iceland has largely eliminated Down Syndrome due to its prenatal screenings (Quinones). Many mothers choose to abort fetuses when they learn they have the condition. Is it ethical for a society to decide that certain people are undesirable and should not be born at all? Where is the line drawn?

Some human enhancements could create a massive paradigm shift that would positively impact society. The telempathy innovation is one such example (DeFelice). Much of the systemic ills that plague society stem from a critical lack of empathy. If people were able to truly understand what it’s like to be another person they would not be so quick to leap to conclusions about them and could instead work collaboratively to improve the world. There is a term in social psychology called a fundamental attribution error. This means that people attribute other’s mistakes to some internal failing and their own mistakes are attributed to forces outside their control. With telempathy, people would be less prone to doing this. With a stronger understanding of other human beings, society could become much more peaceful and collaborative. With everyone working together, anything could be possible.

**Essay III - Works Cited**

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