Jonathan Da Silva

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Final Exam

Media Studies 255 New Technologies

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.**

User experience design or UXD is a process in which a technology, system or product in general is optimized and developed to be useful to the user or consumer. UXD intends to improve the accessibility of a design and extend its productivity. By that definition a UX designer or UX professional is a person or group of people who aim to develop and improve upon user experience. Through the design of a product or technology, a UX designer can make it easier for the user to interact with the actual product and optimize their experience. This enables them to continue to develop and improve the technology and enhance its efficiency.

UX designers go about their efforts by utilizing several techniques that aim to improve product accessibility. One technique is the task analysis where user scenarios are utilized to fully realize the nuances of the technology or product. Another technique is design where charts, tests and proposed interfaces of products are applied. Finally, there is usability and beta testing which analyzes the use of the completed product in the hands of end users and gathers feedback.

Despite the success that these techniques may lead to in product or technological development there are a few ethical quandaries that UX designers face in their field of work. The first of these dilemmas is human costs and devaluing work where optimization, enhancement of human ability and automation all factor in to an issue regarding loss of skill. With a rise in automation especially, certain value, skill and worker growth is in danger of being diminished in favor of efficiency. The issue of devaluing work crosses into the next quandary which is de-skilling. As technology and products become more efficient and easier to use the skill involved in operating a system or product can be eventually lost. An example of this would be where a product is prized for being handmade and well-crafted involving skill only to be eventually replaced by technology that does the work for us but also eliminates any skill involved in the creation of the product.

Other issues involved with UX design include the erosion of privacy and the dangers of distraction. Some systems or products in new technology can be designed to record or gather information about us to enhance experience. On the other hand, this can also lead to the misuse of such information as well as unintended uses such as monitoring our use which leads to concerns about our privacy and how our information is being utilized and collected. The integration of all this new technology in our lives also leads to a reliance on the technology or products available where our attention spans are always being absorbed using these products. Our smartphones today are a big example where it is becoming hard to not look at our screens for extended periods of time. This can be problematic in situations that require our utmost attention such as when we are driving which leads to concerns about safety when it comes to distractions. Maybe UX designers are not completely to blame but certain products do aim to capture our attentions to be marketable.

The last issue regarding UX design is the influencing of user behavior. Certain technologies, products or applications are designed to influence us and the way we use them. An example of this would be any online shopping website. Amazon.com would be a prime example where the site is designed to sell us products but also give us suggestions and try and influence us to buy a product but also to continue shopping and buy other related products or things we may need based on our purchase. It collects user information to later influence them to make various purchases and continue using the site or app. This influence built into its design is known as persuasive design. There can be positive aspects of persuasive design where it makes things easier for us when using technology. In the case of Amazon, it makes shopping easier and more convenient, while giving us ideas of what we may need by analyzing our behavioral habits. On the other hand, it can also be negative since it capitalizes on our information and tries to influence the way we shop or think while using the site or products in general. This leads to questions of whether we are being positively or negatively influenced. Are we making our own decisions? Or will our decisions already be made for us and be told what to do through such influences? In these cases, the job of a UX designer is to balance these ethical quandaries while optimizing and making user experiences more efficient and productive.

**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 digital world has had a major impact on the arts and artists themselves. With new technology available more and more opportunities and platforms are opening that connects to the arts which changes the way they previously operated. It is because of the digital world itself that these changes are possible, and it is now easier to produce art including film, music and television. There are a few core characteristics of the digital world that specifically led to an impact on the arts. The three core characteristics of the digital world is that it is electronic, it is networked, and it is interconnected.

The electronic aspect of the digital world has impacted the arts in many ways. One major reason is that the art itself no longer must be a physical object. In the digital world physical objects can be uploaded and downloaded on digital devices. This means that they can now be manipulated, altered and even used for other purposes such as parody or in the creation of a new piece of art. The bits and pieces that were only physical and tangible can be used digitally to piece together material and create new digital possibilities. New works of art can also be created rapidly from scratch utilizing digital technology. There are downsides to this however since it would be hard to tell the difference between a real work of art or a copy. Digital works can be easily copied and manipulated so the original would come into question. Other questions that may arise would also be what value can we apply to a certain digital piece? And what is the cost? In the physical world we have a tangible thing that has had many hours poured into it and a certain level of skill that went into its creation, so it would be difficult to tell what the cost and value of a digital work should be especially if we are unsure if it is original.

Another core characteristic of the digital world is that it is networked. The digital world that includes the internet has made it possible for information to be readily available and to be able to travel at tremendous speeds. Works of art can be more readily available in almost an instant and is at our fingertips. We can also access them at any time. This makes the art interactive and sharable. Users can share art and give feedback as well as take and manipulate art. Part of this networking translates to the third core characteristic, which is that digital media is interconnected. The inclusive and communal state of the internet and other networks has made it possible to not only receive content but to respond to it, whereas television, radio, film and music are all sort of one-way streams in the physical world. Social media is an example of how content can be shared and connected through many groups of people and become popular. The downside to this interconnectivity is that it can be harder to notice a specific piece of art put out into the digital world since there are so many resources in which virtually anyone can create artworks.

Art in specific areas have been affected in different ways by the digital world. Visual arts can occupy digital space and become a new type of art where they can last virtually forever or also be forgotten about in the vast digital space. Also, completely digital art is now possible where new technology can aide in its creation. The unrewarding aspect of this is that the authenticity is still something along with cost and value that comes into question. It is beneficial however because great and aesthetically impressive works can be created easily and faster than ever before. In film and TV there are new opportunities regarding smaller lighter and more efficient cameras that create content. Utilizing this new tech makes it easier and faster to produce movies and shows. The audience can again interact with and the content is readily available. Everyone however can now utilize this equipment and platform and technically be a filmmaker and make their own films. In the music industry similarly, content is more widely available on this digital platform. Also, equipment is much easier to utilize where now a lot of effects used in studios can be experimented with digitally from anywhere. An artist used to require studio time and be signed by a major label to share their music on a larger scale, but now digital media and the internet can be a larger platform that eliminates those needs. When it comes to music a downside that also connects to film is piracy and proliferation through p2p websites. This is a concern because it can affect revenues and artist value if their work is being taken and stolen. Besides these specific concerns however, there are both positive and negative aspects that the digital world has had on the arts which it has impacted it today and continues to impact it ongoing into the future.

**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 enhancement technology has opened numerous possibilities with regards to our lives and health. With the use of many new and developmental technologies there are a wide array of possibilities for human advancement in the future. Specifically looking at some of these technologies including biotechnology, nanotechnology, information technology and cognitive science we can get an understanding of how human enhancement technology can overall help us and possibly hinder us going forward into the future.

Some specific applications regarding human advancement technology include memory manipulation, advancements in surgery technology and even organ transplants. One new way in which an approach to organ transplants is being explored is through 3D printing. 3D printing is still considered relatively new but there is already research into biological advancement where this technology can be used to create fully functional prosthetics and even utilize human tissue. It has even been experimented with to create artificial blood vessels. With this new possibility we can soon be able to completely replace organs and lost limbs. Besides already existing applications where 3D printing can be used to create parts or even whole three-dimensional sculptures it has the possibility to greater enhance human health. Another possible use being investigated is the creation of prescription drugs. While a lot of this advancement can potentially be beneficial to humans it can also be just as harmful. Misuse of this technology can possibly have adverse effects on our health and well- being. Questions that we may ask is are the materials safe to apply to the human body? Can any potential malfunctions be lethal? Also, when it comes to potentially making our own drugs through printing technology there may be misuse in terms of addictions or even profit that could prove detrimental. I do however believe that most applications of 3D printing can have a positive impact on human health advancement.

Another way specifically where human advancement technology can be utilized is through the electronic augmentation of our senses. It may soon be widely possible for someone to communicate with another by having a device that reads our neural activity and relay that to another person, so they can essentially understand what we are trying to communicate. This can have many applications such as in the military where coordination could benefit from unspoken communication and even in people who have lost the ability to communicate possibly through illness or injury. Author Michael Chorost describe this potential feeling of another’s physical sensations as “telempathy”. This can be useful in numerous ways as it improves communications between everyone through just thought but it can also have its downsides. The issue of whether we may want our senses to be read can come into question. Consent and privacy would be a big issue that could hinder the use of this tech since it could be used for negative purposes such as the invasion of privacy and obtaining information that is not intended for others.

Another noteworthy possible advancement in human enhancement technology is nanotechnology. The idea of small particles or micro-bots being utilized to achieve a wide array of results has opened the ideas of possibly utilizing this technology to improve human health as well as offer a solution possibly to clean renewable energy and even other environmental advances. Nanotech can also be programmable matter which matter than can be programmed to do a variety of task by changing its physical shape. Nanotech with regards to health can be beneficial as it can also be used in the body to heal or possibly detect and prevent disease. It can maybe even be one day used to cure diseases. Some concerns can be whether it is ultimately safe. Technology even past its beta testing can sometimes malfunction and it could be detrimental to us. Just like dystopic science fiction movies with nanotech possibilities the questions of whether we will still be in control or will machines take over can be a major concern. Out of these many technologies I believe we can use nanotech the most because of its potentials not just health wise but also regarding the environment. Overall, I believe that each of these potential advancements can be beneficial and should be explored, but it should also be met with a great deal of skepticism. There will be issues with each tech with potential malfunctions and misuse. Privacy with all of them is also a big concern as we may be surveilled without consent or our information can be used to target us. Does the good outweigh the bad when it comes to human enhancement technology? I think it is too early to say but it is something that has significant potential either way.

Works Cited

Essay Question #1

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Essay Question #2

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Essay Question #3

DeFelice, A. “255\_Week 12\_ Creative & Future Thinkers (Part 1)”. Kiely Room 315, Queens College, NY. 24th April 2018. PowerPoint/Lecture.

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