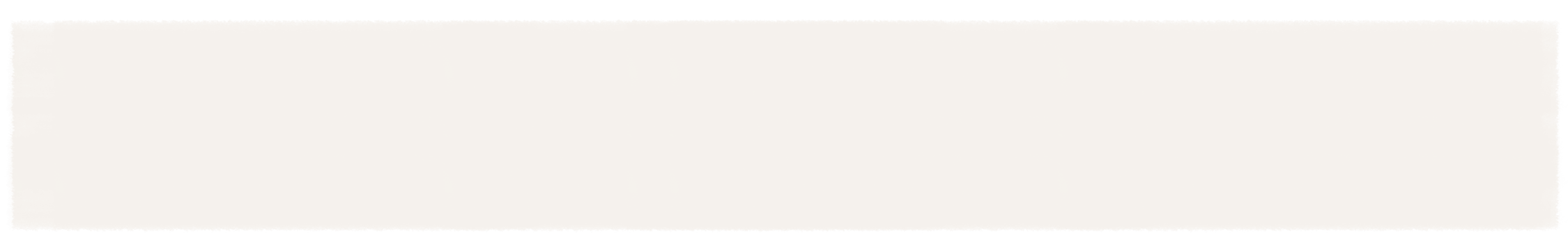
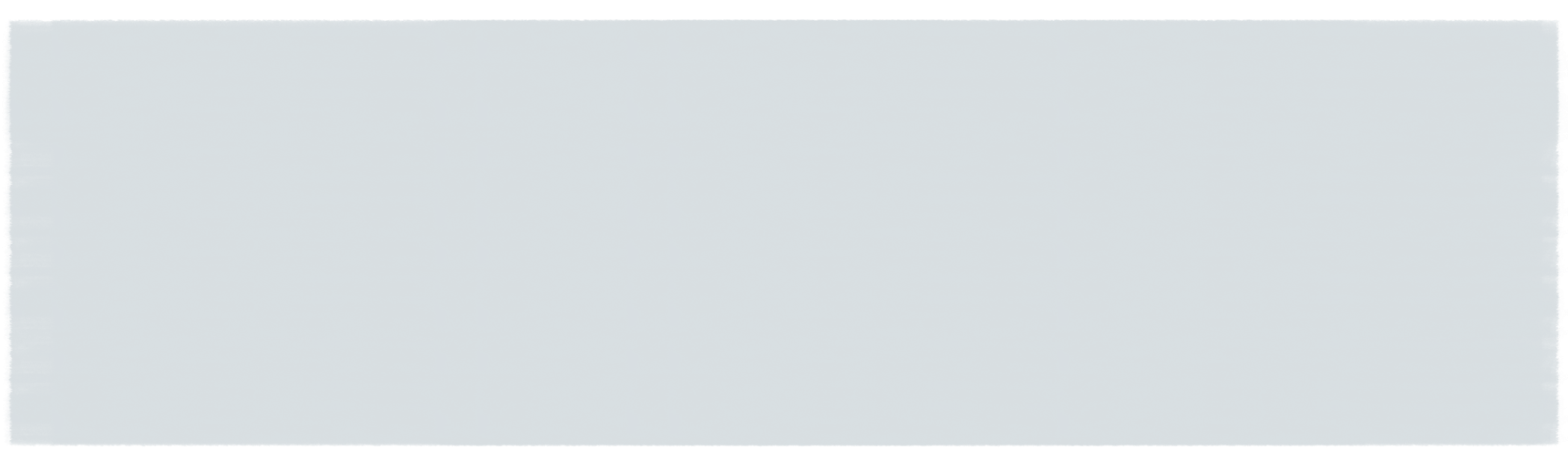
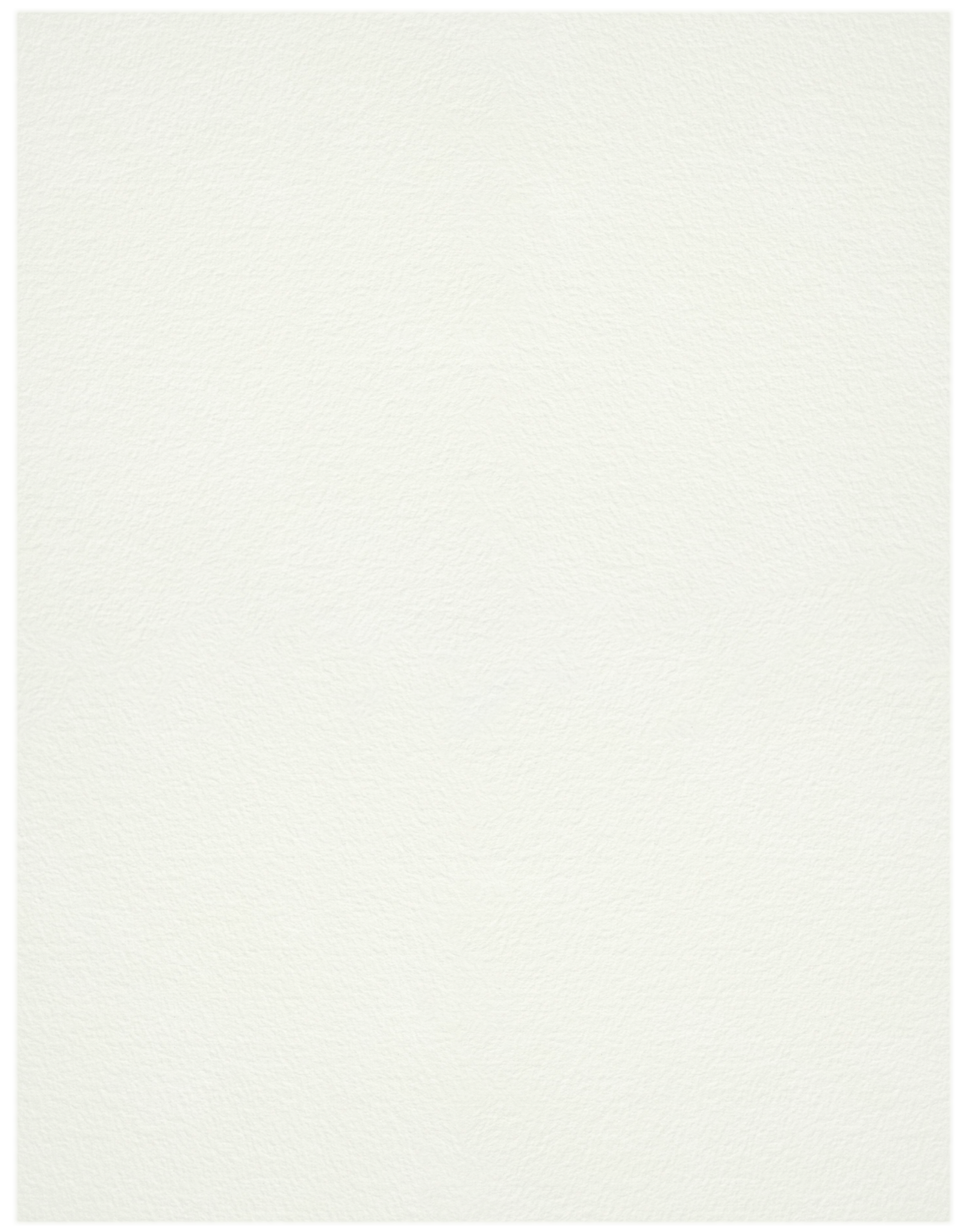
**New Technologies**



**Final Examination 5/13/19**

**Nickolas White**

NEW TECHNOLOGIES – MEDST 255 – FINAL EXAM – SPRING 2019 - DEFELICE

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.**

The primary job of a UX designer is to work with designers and developers to make apps and other interface technologies more user friendly. Similar to the goal of all computers, its is the goal of a UX designer to make apps or programs “invisible” (where the app has integrated itself into the life without much thought by the user). An example of simplification can be shown through the creation of skeumorphs. Skeumorphs are icons that represent a form of older technology that work identically to the app or program itself. With a simpler program, the masses will come to rely upon the app or program more often causing it to become effectively invisible.

The ethical quandaries that a UX designer may face include surveillance (where users may watch their daily habits, where they are located and even keep schedules for themselves), kid tracking (for adults to watch they young when they may not be present), privacy (to make sure that a user is not being watched or having their knowledge used unknowingly) and also distraction (such as watching videos to pass time and play games to enjoy ones free time). Examples of apps that fit the categories of the UX designer include step monitors and Google maps for surveillance, baby monitors and nest cameras for kid tracking, project manager and screen time for privacy purposes and YouTube, social media websites and games for distraction purposes.

Persuasive design is the creation or modification of an app in order for it to become more enticing to the user. The method of enticing may range from app suggestions based on user history, user customization within the app to make it appear more custom fit, as well as communication between apps in order to assist the user. As a user explores more of the apps capabilities, data is transferred to the UX designer in order to provide better feedback, updates and even future troubleshooting when issues may arise. A great example of persuasive design can be seen with the amazon marketplace app. The app keeps track of the users browsing history in order to suggest similar items, place ads on other websites in order to remind customers and keep track of data between apps for amazon to use with future items.

As my own personal opinion on the work of a UX designer, I feel that persuasive design causes a trade-off for the user. The user obtains capability over the app or program that they choose to use but in the exchange for data their actions provide as well as his or her own privacy. As an example, Facebook is one of the largest social media websites known on the Internet as well as one of the most popular apps for most users. Though this item is most popular for its ability to connect many people online, according to The New York Times on April 24th, “Facebook expects to be fined up to $5 billion by F.T.C. over privacy issues”. With a security breach exposing the personal information of nearly 50 million users, the true danger of using Facebook blindly could be seen. Also as a personal experience, I have come to notice that the Amazon Marketplace app and Facebook app communicate with one another. The reason both apps communicate is because my information of purchase I have found influence the ads I see on Facebook and suggestions I see on Amazon Marketplace. In this era of UX designers, it is amazing to have access to such utility on a basic smartphone, but important as well to be knowledgeable of the knowledge put out into the public whenever an app is used. **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 are that it is electronic, interconnected, and networked. By being electronic, the digital world is constantly in motion run off of various devices such as smartphones, laptops and tablets to name a few. The digital world is also interconnected because each portion of the Internet connects to the next portion. Also since the digital world is networked, information is always readily available as well as connections can always be made with other like-minded individuals through this medium.

With the core characteristics of the digital world, creative culture has expanded greatly allowing many newer types of art and collaboration to flourish. With the networking aspect of the digital world, it is easier than ever for an artist, musician, or writer to connect with other individuals as fans, collaborators, and also mutual artists. An example of such interconnected can be shown with Netflix’s *Birdbox*. In the movie, it is the viewer themselves that has the power to control how the story progresses in a form of collaboration between the creator and the audience. It is this collaboration that interconnected the audience to the creator that creates a unique experience for the audience.

Also another example of the advancements that the digital world can be noted with Avid Pro Tools recording software. Originally, one using recording software was only capable of recording whoever was physically. With access to the digital world, Pro Tools released what was known as “Cloud Collaboration” allowing a musician to record with other artists without having them physically present in the same room. With access to the Cloud for uploading and downloading data online, musicians can far better network between other musicians, producers, and even other individuals from the comfort of their nearest studio running Pro tools.

Though there are many positives to the digital world that has become increasingly more relevant in artists and musicians lives, there is also a possible negative to this newer age of technology. With access to recording technologies, as well as video streaming websites and online art galleries, it has become far more common for many artists being unable to life off of their craft alone. Though there are services online such as Patreon and GoFundMe that allow audiences to raise money for up and coming innovators, more common websites such as YouTube tend to struggle with supporting many of their content creators. During the summer of 2017, many content creators suffered financially from what they referred to as the “Adpocalypse”. During this period, only particular channels that were deemed family friendly and popular enough received ad revenue from other artists causing many content creators to leave the website as a creative outlet. Overall, Eric Kain from Forbes website stated that: “YouTube wants content creators to appeal demonetization, but it’s not always that easy.” As a social platform, YouTube has access to tons of willing content creators that are trying to make a name for themselves but only those YouTube deems worthy of ad revenue (by the ability to create an audience) are able to succeed financially (regardless of entertainment value or artistic merit). It is a shame, but there is a possibly with the access to the digital world, that as artistic abilities may become more popular, the actual value of art online will diminish due to the population and accessibility (unless if one can think of a way to draw an audience easier than others or create a new unique form apart from others with technology provided).

**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?**

As part of group 4 during presentations, my group and I studied much of the newer possible advancements in human enhancement technology from reading Michu Kaku’s *Physics of the Future*. Some examples of innovations that are currently being worked on (as well as possibilities for the future) included Internet contact lenses (granting a user access to the internet with eye motions), universal translators (in order to understand communication with languages that one is unable to understand), and future advancement in telekinesis (moving objects with ones mind), telepathy (reading ones thoughts with ones mind), and portable brain scans (to reference needs in a human body current physical state more efficiently without need of a doctor visit). Also other examples of human advancements can be seen in prosthetics allowing those missing limbs to have mental control over mechanical limbs, as well as 3-D printing of portions of the body with synthetic skin becoming possibly relevant in the near future.

Though I do believe that these technical advancements are incredible in their own right, I do question the issues that they may cause in the near future. As a primary issue, I found myself wondering of the dangers if someone could by chance hack into ones human augmentations. Rather that the dangers of hacking being linked to the social status or online status, if hacking is a possibility then the dangers increase to that of a physical level as well (especially with prosthetics). Also with the ideals of mind reading being a capability in the near future, many of the ethics can become quite questionable on how it should be used. Many thoughts wander through the human mind within a day as impulses from the brain but those thoughts do not define a person as a whole (rather the actions taken define a person).

As one of the larger concerns I have with the connection of humans to technology in the near future, I came across an article by Erika Kinetz (“Experimental brain implants studied as opioid deaths rise”) that caught my attention. Drug addiction is a serious problem influencing many of the current generation and can destroy the life of one who has no control over it. In this way, I do believe that research into brain implants is an interesting study and could help many people. My greater worry though comes from the after effects of using brain implants on the individual themself as well as the moral dilemma of are we even human anymore afterwards? In greater detail, I thought to myself as a former psychology major that thought processes develop within the human mind from portions of the brain activating through neurons and electrical charges all together. It has been recorded many times with accidents to the head that with injury to portions of the brain, thought functions may cease to exist afterwards or may be altered. With the idea of brain implants, one may start off being cured of drug addiction but in the future there is a possibility of “norms” being considered when looking at ones brain development in years to come. In a positive light, drug addictions, schizophrenia and other mental disorders caused by imperfections in the brain could be prevented with newer implants. In a negative light though, what if the norms created forced individuals to think in the same ways only and have no alterations in their thought process. It may be a bit of an extreme, but if every individual received the same brain implant at birth, it is possible that with the same neurons that every individual would be helpless to think any differently from one another with the same brain structure.

For current times sake, I believe the most important human advancement that could help many people relatively quickly would be the completion of human prosthetics that maintain the touch aspect when functional. Though I find it very impressive the improvements made with prosthetics for those who lost limbs or were born without any, the factor of feeling has always been a relevant one. With a mechanical arm or hook leg for running, the user can never experience the feeling of holding a new baby in their life or truly experience hugging another individual with current technology. With the advancement of sensory receptors in prosthetics, I believe that those who lost limbs or were born without them could live a lifestyle more attached to human society by being able to feel once more like an ordinary human would. Granted, such a technology would require a great amount of study to create sensory receptors that would link to human nerves and could cause complications (such as overactive pain receptions) but I believe that the technology would be able to assist users once complications are resolved.

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