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Technophilia:

An Observational Analysis of the Present and Future Relationship Between Humans and Technology

In today's society technology exists at its peak. Nearly everyone we know utilizes technology on a daily basis. We use it for entertainment, work, social connection, daily tasks, and in many cases to stay alive. This project focuses on the increasingly intense relationship that people have with technology. By combining imagery of the human body and elements commonly associated with technology, my goal is to present a set of images that invites thought and discussion about the societal roles of technology, current technology, and the future of technology in our world.

In order of execution, my first piece (no. 7 in the gallery) is intended to illustrate the relationship between our "real life" personalities, and the persona we present in the digital realm through social networking, forums, blogs, videos, or even online gaming. Oftentimes these personalities contain separate elements, due to the vastly different forms in which they are presented. The Internet allows for anonymity, which often allows for increased confidence, social bravery, narcissism, and even hostility. But unless a very conscious active effort is made, elements of how we present ourselves in the real world will bleed through, and transversely, our interactions with other online can equally effect us in the real world. This drawing is meant to show that merging.

My second piece (no. 2 in the gallery) illustrates the sometimes common feeling of being overwhelmed by technology in today's world. Every so often there is a rally cry by a group to "get back to nature" and go outside. Children are often encouraged to break away from video games and tv screens and have more face-to-face interactions and more outside activity. This is a culture-wide response to the prevalence of technology in our lives. People with anxiety or stress problems are even often

recommended to spend time with their cell phones turned off to allow for more focus on the physical world and decrease the stress of feeling like they need to be in constant contact with the digital world.

My next piece (no. 1 in the gallery) turns to the more physical side of technology and explores two different points. One point can be found in the image's source. The image I used for the linework of this piece is one of the many pin-up paintings by Alberto Vargas. Vargas is one of the most well-known classic pin-up artists and his depiction of women was often considered the idealized standard in beauty for the 1950s and 1960s. By adding sophisticated robotic elements to the figure in the painting, as well as making changes to her skin and hair, I wanted to show the way in which our standard of beauty morphs over time as our relationship with technology deepens, and yet overall we still value the same elements of the body. The outlines are still the same, showing the appealing curves of a woman's body, but the content inside the lines has changed.

The second point in this painting comes from its source of inspiration. This piece was inspired by our increasing advances in human prosthetics, and how we are growing closer and closer to creating fully robotic limb replacements. I read an article some months ago about a breakthrough in the way prosthetics are linked to the body. Previously, bionic prosthetic limbs (meaning artificial limbs that could be controlled by the wearer) were controlled by repurposing other muscles in the body near the site of the artificial limb. Since there are no actual muscles in the artificial limb another muscle in the body, when tensed or moved a certain way, would control a piece of the limb, such as moving a finger. Basically, existing muscles are acting as a medium to connect the prosthetic limb to the brain. However with this new method using fiber optic connections, the limb is linked directly to the spinal cord. This allows for better control of the limb by the user, and bypasses certain problems like damaged nerve fibers at the point where the limb was lost. This method also means that patients with spinal injuries who would typically not be viable candidates for bionic limbs, due to nerve signals not reaching the required extremities, could benefit here as well. The connections would simply be placed higher on the

spinal cord, above the point of injury.

This point leads directly into my fourth piece (no. 4 in the gallery). This follows the same idea of the future of prosthetics but focuses less on the replacement of limbs and more on bodily aides. In my research I have come across a number of robotic leg braces that act as walking assists, either for medical or recreational use. Combining the idea of the leg braces and bionic prosthetics, a person who is paralyzed from the waist down could theoretically be given the ability to walk with their own limbs again. This piece takes this idea to what I theorize could eventually be its future potential; strong, lightweight leg braces, that can be controlled by the brain with enough precision for activities such as dance, an activity that focuses heavily on the legs.

The next piece I completed (no. 5 in the gallery) focuses on the issue of the effects of violent video games and media content. Although most of these pieces are purposefully meant to be simple observations or depictions of ideas, it was difficult to avoid having an opinion behind this piece, whether it shows in the final image or not. Most often the argument concerning violence and video games is that violent games make people more violent in the real world. I personally believe this is completely untrue. Humans have always been violent, we are a species that has prospered through killing. If anything we are less violent now, which simply results in modern acts of violence being more prominent. I also believe that this is untrue because it is the exact same argument that is used against every new form of media consumption. First it was books, particularly fiction, that detached children from reality and presented content that adults considered too mature, then it was rock-and-roll music that made kids do bad things, then television. Later the same arguments were used for heavy metal music, arcade games, slasher movies with over-the-top violence, and now home video games. And while society is determined to prove that these things are somehow brainwashing younger generations into violence, no study has ever proven this conclusively. However, I do believe that this artificial violence has some effect on us. While it may not change our behavior, it does change the way we process violence visually. This is what I am

attempting to display in this image. When we grow up exposed to realistic-looking artificial violence shown to us through a screen, images of real violence, also often seen through a screen, do not have the same effect as they would otherwise. Now, this is not to say that today's generations cannot distinguish real from artificial violence, and surely violent acts seen in person have a much different effect on the psyche, but when the most gruesome acts of real-world violence we will likely ever see are presented through the same medium as what is essentially play-violence, we become jaded to the shock. The images no longer become hard to look at, as they could just as easily be a shot from a movie set or a well-rendered video game. The screen results in a disconnect, and all images are seen as having one simple source: "online".

The piece that followed this (no. 6 in the gallery) steps back from the subject of social opinion and returns to the realm of calm contemplation of ideas. This image is meant to address the possible future of artificial intelligence. Advances in artificial intelligence in recent years have given us robots with the ability to learn information, instead of forever only possessing the information they are programmed with, as well as robots with the ability to recognize social cues and read emotions. About a year ago I read an article in which scientists had developed two small robots and placed them in a maze together. The robots, possessing the ability to make various electronic sounds, were able to develop a simple language between them in order to assist each other in navigating the maze. Science fiction gives us our idealized end product of all of these advances: a robot that is virtually indistinguishable from a human, with the ability to speak, learn, and even have emotions. So with this being the goal that we are working toward, it seems like only a matter of time before we have created an artificial being with a sense of creativity. Certainly if something has the ability to think like a human and feel like a human, it also has the capacity to create like one. But this raises many questions in itself. If a man creates a thing, and that thing creates art, has the man created the art? Or can the artificial being be officially credited with being artistic? At what point can we tell if the being is artistic on its own and not just programmed to create?

There are no definite answers here, and we can really only do as we are programming our creations to do and learn as we go.

My final piece in this set (no. 3 in the gallery) is based on a recent breakthrough in the development of the artificial heart. Previously, artificial hearts were made to replicate the natural human heart as closely as possible. This meant replicating the human heartbeat, which moves blood through the muscle. The continuous problem here was that no artificial material has been able to withstand this action as well as natural human material, and artificial hearts wear out relatively quickly. It was only recently realized how silly and redundant our thinking has been. The function of the heart is to oxygenate and deoxygenate blood. It is a filtration pump, quite simply. The natural heart must achieve this through literally pumping blood through the chambers, but if a heart is artificial, it doesn't need to pump! The end result, and most entertaining as well, is that when the heart is installed in a living person or animal, there is no pulse. The artificial heart smoothly moves blood through itself a nearly inaudible low hum instead of the *lub dub* pumping that results in the beat of a pulse. The heart displayed in the image is based on the actual image of this heart design.

Each piece for this project is an illustration on a 17" square of BFK Rives printmaking paper. I work with digital art often, but typically with the goal of only displaying the image in a digital format. In order to achieve products that could be displayed physically, I decided to reverse my normal procedure. Normally, the linework of my drawings would be done on paper in light pencil, and inked using a pen and india ink. The image would then be scanned into the computer and then cleaned up and colored digitally. For this project, I worked in the other direction. Linework for each drawing was done digitally, using combinations of my own drawings, found photographs, and photographs of myself. Most of the images combine a number of photographs to achieve the final outline. Separate photographs are used for anything from a figure's hair, face, and teeth, to a figure's hands or even the two sides of one leg.

In the beginning of this project my biggest problem was getting the digital linework onto paper.

My fear was that if I simply ran the image through the printer and water in the paint would cause too much warping in the paper for a satisfactory end result. My initial solution to this was to soak and stretch the paper before painting it, to keep it flat. But I worried that the soaking would ruin any digital printing, so I attempted a process that involved transferring a photocopy of the linework to the larger paper using wintergreen oil. The results were light, unevenly transferred lines, not the smooth precise lines I was hoping for. So, putting that idea aside, I turned back to simply printing the images. I printed the linework, and in order to thicken the paper to avoid warping and increase surface size I glued that paper to a larger piece of paper. I liked the subtle white border created by the edges of the top paper against the larger piece and it also increased my workable surface area to allow for the other aspect of my original design. This other aspect was to be a pattern of various sized circles containing a variety of patterns. These were to be done in ink, and have the effect of a complex network of intricate designs surrounding a very calm central figure. In theory it sounded like a very dynamic image, but when I actually began to apply the circles to the paper, the result quickly became too complex and cluttered. After spending many unfortunate hours trying to make the circles look presentable, it was decided the images would be better off without them. That was when the final look for the images was decided; simple, clean designs containing a central figure surrounded by an uncluttered, calm amount of white space.

As the linework for each drawing was completed and sized for printing, it was printed out onto paper using a large format photo printer. Small details such as eyelashes and pupils, and additions to hair and electronic elements were added by hand with pen, and all color was done with watercolor paints. I am very happy with the results of this process. By doing the watercolor in only a few small areas at a time, paper warping was only minimal, and the glue process was far more trouble than it was worth so I was pleased to be rid of it.

Not only did this process give me the physical appearance I wanted to achieve, with smooth digital lines on a surface that would also accept paint, but it also reflects the idea behind the project

itself, combining technology with traditional art mediums. I did enjoy this project, and I am pleased with its final results. I can only say I am amiss that more images could not be produced due to the number of setbacks in the beginning of this project. I do have many more ideas however, and I hope to be able to expand upon this initial set of images much more in the future.

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