

PART 1: RESEARCH

When you play a simple side scrolling video game such as Super Mario Bros, it is normal for people to interpret the game's environment as "simple" because it is a 2 dimensional world. That is because there are only two axes of movement to worry about (x and y) as opposed to the usual three axes in our 3 dimensional reality (x, y and z). Humans use 3 dimensional knowledge and technology, such as computers and coding, to simulate and recreate realities that are equal to or of lower dimension to their own. Now, if Mario and friends from Super Mario Bros were sentient, they would only know and understand the 2 dimensions they live in, without any conceptualization of higher dimensions or possible ways to manipulate their own reality. Movies like "Wreck-it Ralph" demonstrate how 2 dimensional video game characters interact within the boundaries of their known arcade world without any understanding of the humans' 3rd dimension that they are also existing in. Applying this logic to our reality means that we may not have any idea of a possible higher dimension manipulating our puny 3 dimensional reality, similar to that we manipulate video games. The point of perspective that sentient beings take is confined by the maximum understanding of the current reality's rules, therefore, there is no way of finding or understanding answers about higher dimensions, or is there?

The knowledge of higher dimensional realities can be both consequential and beneficial to the average human. The ignorance of humans is extremely important to prevent existential crises from happening all over the world, in order to maintain stability and purpose in the

average human's life. The lack of any hard evidence for higher dimensions prevents humans wondering about the meaning and purpose of life. Because of this, the stability of the human species can be considered *safe*. There is no proof that human life is officially meaningless, therefore no human can feel validated to believe this. Hypothetically, if proof of infinite higher dimensions were to be revealed, how many people in the world would continue to live confined within the "human experience" and how many people would leave behind their old life in order to find new meaning to their life? However, the lack of knowledge in dimensional theories is helpful to keep humans grounded in the 3rd dimension; humans can feel stable, therefore they push the human race forward in evolution through technological advancements and making efforts to maintain world peace. This brings up another existential question: if some hard proof of higher dimensions were to be discovered, would it be better to keep it a secret? Albert Einstein's general theory of relativity was one of the first in the 20th century to analyze the powers gravity and structure of spacetime from the perspective of a macro-lens, followed by other theories that use different methods, all supporting the possibility of different forms of dimensions, higher or lower.

In his work *Republic*, Greek philosopher Plato presented the *Allegory of the Cave*, which demonstrates a situation where ignorance can lead to overall happiness. In short, there were prisoners who were chained to a wall for their entire life, facing a wall. The prisoners could not ever turn their heads to see behind them. But behind them was a fire, where puppeteers performed and casted shadows on the wall directly in front of the prisoners. The shadows were the only thing that the prisoners could see. That is all they ever knew and the only thing they could look forward to. The prisoners did not even have knowledge of the objects that cast the shadows; the shadows were the prisoners' reality. One day, one of the prisoners was released into

a meadow, and for the first time in his life, he experienced fresh air, a new physical reality, freedom in his movements, sunlight, etc, but is then chained back to the wall an hour later. After experiencing the new reality, the released prisoner does not find the shadows amusing like the other prisoners anymore and lives in misery. Because he found out about this new reality that was far beyond all he ever knew, he could not enjoy his life when he was put back into chains. This describes the human perception of reality and how ignorance can be a virtue. If we alter the situation and say the prisoners were all factory workers, the one released prisoner will probably find no excitement in the factory work and will not continue outputting work like the rest of the ignorant prisoners. This scenario can help theorize the reaction of someone who discovers the truth of what makes up the 3rd dimension. Would the truth be too difficult for a 3rd dimensional creature? How would the released prisoner explain his new observations to ignorant prisoners? Experiencing the unknown is already enough to make the observer feel like a pioneer, or a full on psycho. Only in the scenario where the released prisoner could physically show the other prisoners the truth, allowing them to observe first hand about the secrets hidden from them, will the veil be finally raised from the prisoner's clouded minds.

 Slowly the characteristic of ignorance is seen to be a virtue; ignorance is bliss. But is not knowing usually the answer to happiness? Lack of awareness for the grand truth can increase anxiety for the person, especially as adulthood creeps in. Throughout childhood, you have nothing but ignorance which directly leads to a more carefree life; a time in most people's lives that is reminisced through nostalgia. However, as you grow up, you slowly become wiser and lose the immature ignorance for the world you used to have and strive for understanding the world around you, thus leading to heightened awareness of the truth. This feeling can be described as misery, but the term misery is relative to human emotions anyway, meaning that the

bad emotions humans correspond to misery are only determined to be bad by the connotations set by society. All emotions are simply subjective emotions, we all feel something from emotion to emotion and we relate those to certain moods and outlooks on our lives. Happiness and fear are both strong human emotions, but are considered very different things in humans' eyes. Both of those emotions and all other emotions spend the same amount of time in reality, meaning that all life moves linearly through time equally. Since humans and all life in the 3rd dimension are dependent on the concept of time, we relate the worth of time spent in a certain state of being with good or bad feelings, when in the greater picture, emotions are just brain chemicals reacting to emotions.

Time is also relative to humans, even the entire universe doesn't follow the same rules of time due to gravity. Humans use clocks with arbitrary numbers that we have given meaning throughout history in language and symbolism. Space is where the rules of the 4th dimension are introduced in ways that humans don't usually interact with the dimension of time. As mentioned earlier, Einstein's theory of general relativity describes the effect of gravity on the passage of time, and how larger masses will bend space-time in ways that are not easy to interpret. Ways that only a 4th dimensional being could understand spacetime bending like humans understand bending three dimensional objects in their physical world. Since the many 2nd dimension simulations such as video games collect in the 3rd dimension, and the 3rd dimension flows on the 4th dimension of time, it can be easy to assume that each dimension is reliant on the next higher dimension in uninterpretable ways. Even with the theory of general relativity being proven, humans treat time as a constant, although the term 'constant' is also another relative factor. Humans understand time based on memory and perspective, which is a 4th dimensional structure that humans use to maintain order in their lives. The human perception of reality is very

unintelligent in the grand scheme of conceivable universes and alternate realities, however using the word unintelligent is biased towards the belief of the existence of lower and higher dimensions, therefore humans can just be simply described as nothing. There is no answer to the meaning for reality, so reality has no meaning, therefore everything is nothing and equal.

Egalitarianism is a common thought process in the philosophical community, where equality is favored. It is described as the idea that people should all be treated equally, treat one another as equals, receive the same, or enjoy equal social status. The backbone of this concept is that all humans are all fundamentally equal in worth and morality. Egalitarianism is protean because there are multiple different ways to understand equality, which allows itself to be incorporated into utilitarianism. Part of utilitarianism is that every person's interests should hold the same worth as anyone else's. But in different egalitarian doctrines, the interpretation of utility from a person comes in different shapes, such as the egalitarian belief that it would be morally better to pick a situation where a benefit is dispersed equally among all people instead of a situation in which the benefit is larger but unequal across people. This could begin to sound similar to communism, but communism speaks on economical values as where egalitarianism refers to the moral worth of people. Although this idea values human equality as a social system, this thought process could help maintain stability in a hypothetical world where evidence of higher realities are proven. If higher dimensions are proven to be authentic, the value of human life should remain the same. No person is valued any lesser or any more from the past once there is an understanding that the third dimension is purposeful or purposeless. This philosophy can be one of the answers to the prevention of potential mass hysteria in a new age of infinite dimensional knowledge.

Seeing equality in nothing is a hint of viewing the world from a bigger picture. Humans do a good job of immersing themselves in the world that they know, and avoid or reject ideas that they don't know or are not familiar with. Humans will distract themselves with curated media and the subculture of human existence where time is money, social status holds importance, and financial success is the dream we all strive for. The 21st century has brought out new forms of consuming information and media that humans have always obtained from reading and the local newspaper. In this complex display of information with video, sound, and text, unique advertising techniques use specific music and tones in the created content and influence the humans' own emotions on certain issues. This function is called hyperreal encoding, where video techniques give a more heightened awareness of reality.

The raw substance of video is a part of many semiotic systems such as the film industry and internet video industry, which overwhelms the genuine interpretation of human reality. Films and television use a trick when the camera points at the actor or actress and forces us to hear what they say, manipulating our understanding of reality through fictional films or fake reality TV shows. However, an example of hyperreal encoding is shaky handheld camera movements where the frame pans and searches the scene that the camera is in. Also known as Jean Rouch's cinema vérité, this technique is truthful because the camera's movements are not determined by the actor's movements, but rather the camera's movement and framing determines the actors and scene. In hyperrealism, the camera is acknowledged in the work, including in photography. In the late 1980s and early 1990s, advertisements used photographic techniques that decentered the product in ways such as being cut off by the margin, blurry pictures, and covered in text. These tactics would give the product little priority in the narration of the advertisement, allowing the American advertising to remain at a shallow level, using techniques that kept viewers from

touching the remote and holding the attention of many restless viewers. Other videos use unpredictable editing patterns with unpredictable rhythms to emphasize the rapidity of the picture movement. These edits intentionally break normal rules of continuity and centering with disorienting camera movements or quick cuts and changes. Graininess is another technique to signify reality, the more grainy an image it is, the more it signifies reality. It connects the viewer to the existence of the camera and grounds the viewer in reality instead of the multitude of manipulative video techniques used in advertisements.

Living with curated media for advertisements and communication in video formats in the human reality is very misleading, but is this a good thing for the human race? Similar to the Allegory of the Cave Maintaining stability and community in the human experience is essential to the motivation of purpose and meaning in one's life; humans create their own purpose and do the good they want to in their life. When someone is focused on their work for major success, there are no distractions of their awareness of why they are existing, only goals set for themselves. Televised and internet media both use human reality as a platform to communicate ideas within the bubble of our understanding of the world. When the famous question about the purpose of life is introduced, this can conflict internally for someone who devotes their life to work and other focuses. Although the truth is often favored in any scenario for the moral ethic of honesty, a hypothetical decision has to be made; Allow all humans to believe the world that is presented to them even if it is not authentic, or reveal the truth of the world and universe to potentially disrupt human order?

Both scenarios have pros and cons that could alter the path of the human race. Allowing the human race to stay immersed in the world that they only know of could prevent overstimulation of information for the person, which will maintain order and stability, the

favorable option. In a world where hard proof is published of other dimensions or realities and the potential of virality for this new information could send many people into a spiral of self doubt or even suicidal tendencies, specifically those who could already be mentally ill or unstable. A (hypothetical) truth of multiple alternate 3rd dimensional realities, or truth of the 3rd dimension being miniscule in the grand scheme of the spacetime structure will change the human perception of existing forever, rather than ignoring the questions that there are not answers for, there is now proof. It would be inevitable for conspiracy theories to be made about the new information however it would be ironic considering the proof of our universe's existence is the hidden truth. Conspiracy theories have the same effect, rejecting the norms and inventing new meanings for what was thought to be known. Although conspiracy theories are made based on a collection of outside evidence to reject a commonly accepted truth, there is never absolute truth to the theories.

Albert Camus is a writer and journalist who denies the label of being a philosopher, and invented the philosophy of absurdism. Separate from existentialism, absurdism speaks on the truth that humans seek value and meaning in life in a chaotic and irrational universe. Camus states that everything has no meaning in the universe and it remains silent about any purpose.

“I don't know whether this world has a meaning that transcends it. But I know that I do not know that meaning and that it is impossible for me just now to know it.”

- *Albert Camus*

Thinking at the atomic level, everything is 99.99% empty when we consider the space between atoms. Even though everything feels solid, that is only through our eyes at this visible size.

Camus published *The Myth of Sisyphus* where he tackled the subject of the absurd. The cause of

the absurd is when a human, placed in an unintelligent universe, realizes there is no evidence of human values and answers. When the human wants an answer to existing but is answered with silence from the universe, the absurd is born. Although this form of philosophy is morbid, suicide is stated to never be the answer. Camus states that suicide defeats the purpose of human values and freedom, and rather we accept the reality as it is and continue to live with the absurd.

“They always believe that we commit suicide for a reason. But we can very well commit suicide for two reasons. No, that doesn't go into their head. So, what's the use of dying voluntarily, of sacrificing yourself to the idea you want to give of yourself?”

-Albert Camus

This form of thinking can make one wonder if death is the answer to escape the meaningless universe, but it is widely believed by Camus that we should accept the gift of life and spend our life on what we want to be doing. In this scenario, Camus would most likely make the decision to hide the truth of life's meaningless existence to the world to prevent the rabbit hole of thinking that the average human would make. He denies that there is any answer to existentialism, rejecting every scientific and teleological theory, and that the human must accept the natural world's silence on such questions. Learning to accept the emptiness of uncertain meaning or finding your own value in the world is the only way to navigate the absurd.

Whether the truth of the 3rd dimension's existence is proven or not, humans will still see the world through two eyes. As 3rd dimensional beings, it is impossible to visualize the greater picture of the universe and beyond that, humans are confined to their own lives and interests that please them. Everyone has a different interpretation to life and the world they exist in, finding meaning in their own work and decisions. There is no answer to anything, there is no definitive

right or wrong to anything, but the ideas that humans have attached to everything experienced is what humans collectively understand. Within the human race, meaning and ethics have developed throughout history that every other human should follow, but as humans will eventually enter the intergalactic ecosystem, the human understanding of social systems and economy systems will only function with other humans, made clear already with selfish tendencies through deforestation and climate change. Although we are being selfish and Humans will always give their own purpose and worth only to the ideas that are known to our knowledge, everything that is not known to human knowledge will remain unknown and ignored.

PART 2: REFLECTION

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It's easy to wonder what human life looks like from the outside. Humans are extremely socially focused and it's hard to take a few steps back from the absurdity of life and understand what everything is around you. What is normal and what isn't? Is the term "normal" relative to what humans consider normal? What defines right from wrong? Is there a clear answer that tells all what is rationally correct? These are questions that have driven humans crazy for centuries, and there is no way to find an answer. But who says there is a single correct answer to find? It could be creating your own answer, through personal understanding and experiences. Maybe the answer is to do all good and help all should, or maybe there is no answer and nothing in reality has meaning, therefore doing help has no meaning. There will never be an immediate answer.

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Jeffrey Fukushima

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The above was a short piece I wrote in a stream of consciousness for my senior project many months ago. This was the original motivation and idea for my project, and it's fascinating to see how my idea and thoughts have evolved throughout ~9 months. This short piece has a tone of seriousness and confusion, but as I spent time with my thoughts and ideas, I've come to

change the way I perceive the concept of higher dimensions. I've learned to have more fun with it, and enjoy the mystery behind the unknown, rather than stress over the lack of knowledge us humans have on the matter. I've learned to become more accepting of the things we don't know, and I can continue to be curious about things we can't answer instead of becoming confused when there is no answer to everything.

PROJECT TITLE: Points of Life

PROJECT LINK: <https://www.youtube.com/watch?v=sRsIzAadsTE>

The senior project I chose was a hybrid animation and film podcast video that tells the story of two fictional characters, Point A and Point B, who are one dimensional beings that begin to question their reality. They soon discover the existence of higher dimensions despite only ever knowing the first dimension. The dialogue of the short video was taken from a podcast that was



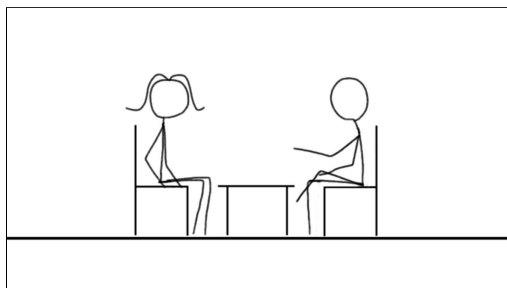
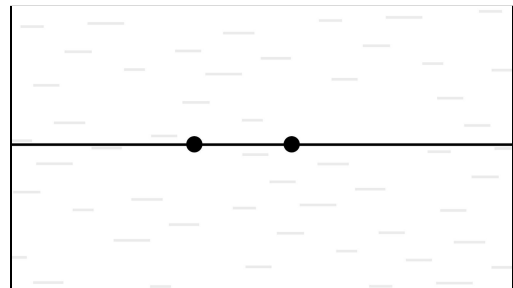
filmed on the “three dimensional set.” Therefore all of the animation and storytelling elements came after the dialogue was recorded. My aim was to make the viewer think about their own reality, and questions the norms that they've accepted and find new ways to interpret them. In my opinion, my project was successful as an independent piece.

Relating to my research portion of the project, the video didn't depend on the topics that were researched, however the video was influenced by many aspects of what I studied. The Allegory of the Cave was the most major contributor to my idea. The points on the one dimensional line are similar to the prisoners in the cave staring at the shadows, and once the points on the line begin to discover higher and more complex dimensions of their reality, they are

similar to the prisoner who was released temporarily from the prison. The points in the story are discovering their reality's truth of the existence of more dimensions.

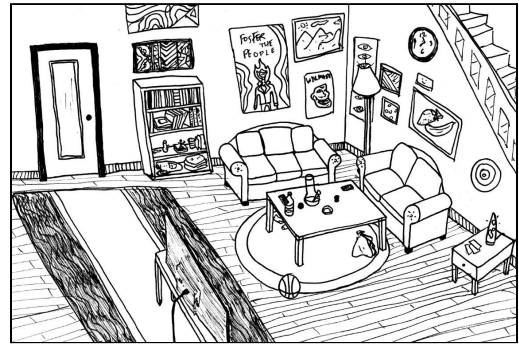
My senior project went through a number of changes, and at one point, was nothing like my final product. My first idea was to create a short narrative film that used elements from my research paper to bend the minds of viewers. It was a story about a hopeless and purposeless man who was being controlled by a 4th dimensional entity. This entity would task the man to murder evil people in the world just to provide the man with a purpose, otherwise he would become the victim of a murder by someone else being controlled by him. However, creating a short film earlier in the Covid-19 pandemic with non-paid actors was a challenge within itself and eventually that idea dissolved into nothing. As time passed and I needed to come up with a new plan, my solution was to take my short film script, and animate the entire thing. I am no animator, but I have done some stylistic post-it note flipbooks, but that was an ambitious idea. I did the math on how much time I would need to spend animating each frame, and realized that it would take 30 days, with no breaks to complete an animated film. So that idea was put in the garbage. As even more time passed, I began to hate my original short film script, as it felt too dark and unenjoyable.

One day, I had a vision for my project; I saw 2 dots on a line, that found a 2nd dimensional line, then soon a way to introduce the 3rd dimension, etc. I wrote the idea down and got to work the next day. I created a loose script for my partner and I to follow as we filmed



and recorded the podcast. The podcast recording came out to be around 58 minutes, which I knew I had to

condense into 5-10 minutes. I was able to cut the recording down to about 18 minutes, and struggled to get it any shorter, but I knew no one would want to watch an 18 minute video about dimensional nonsense; I still lacked a clear storyline. In the editing room, I was battling 5 different parts of the video: 1 dimension, 2 dimensions, 3 dimensions in a 2 dimensional plane, 3 dimensions, then 4 dimensions. Dimensions 2 and 2.5 would have been animated, while dimensions 1 and 4 would be edited with moving images, effects, and elements. I scratched out one of the animation scenes as it didn't



add too much to the story and I was down to an 8 minute audio track. All the animating and editing came with time, and eventually I was pleased with my final result. Although I wouldn't call the final product perfect, it definitely makes the world within

the story easy to understand and entertaining enough to also be experienced as a podcast. There were a few flaws with the progression of dimensions, but in my defense, there are no known rules currently about how to jump dimension!



In order to successfully design the two dimensional section, I needed a reference to animate the stick figures on a two dimensional plane. I filmed my partner and myself making the motions of the characters in the video, and I used each frame as a



reference for the stick figure's movement. My animation skills are very beginner, but for the small movements and simple body language I wanted to present, I think I did a solid 5 out of 10 for execution. What I learned from the animating experience is that I should always hire an animator for any animation jobs.

The fourth dimension section was the section that I hadn't planned beforehand. I had a rough idea of what I wanted to do; I wanted to record the 3rd dimensional space from an outside



perspective, and use that footage as an independent floating reality. I decided to use my GoPro to film the space with its fisheye effect. It was a good choice because in the editor, I used an additional effect called

“spherize” that made the image even more bulbous and orb-like. Eventually nearing the deadline for my senior project, I finally came up with an idea to present the fourth dimension in my video. My plan was to somehow loop the entire project, but I came up with the idea to put each third dimension reality onto a line (of time) for the fourth dimension. It made the fourth dimensional looks very pleasing to look at and interpret, while also allowing for an easy looping of the whole project back to the start of the video.

I had a pleasant conversation with a middle aged adult who told me that they were amazed by the concept of the story, and they have never really seen our reality presented in this way before. We continued to talk about how realities are formed and what makes up a reality, and eventually led to the topic of how I was able to make this project. My reasoning was that my generation (born 1995+) have grown up with the vast knowledge kept on the internet. I am a self learner, so I will find myself reading all types of articles on the internet that interest me,

specifically space exploration, space discovery, theories of relativity, and so on. All this knowledge is available to anyone in the world nowadays but yet, most people living on this planet don't open up their minds to it. Another conclusion I came to was that my generation of young adults grew up perceiving the world differently from those that were born 20-30 years before us. The present day is less about survival, and more about cooperating to discover more. Within the next 100 years, the world will hopefully become a peaceful union as a species, and no more civil human fighting will continue. From there, the world can work together to discover the only things left in our universe, the rest of space (and the bottom of the ocean too).

The type of project I was able to create is also a great indicator of what a student in 2021 can create compared to a student in 1970, to a student in 2050. Having the knowledge and resources to be able to tell a story and present an idea as complex as mine was definitely something unimaginable to a student a few decades ago. But then that gets me wondering what kinds of art projects students in 30 years will be creating. VR experiences, sophisticated robots, we can only imagine. That also depends on how the New Media major will continue to evolve as newer forms of media are introduced. I foresee VR technology becoming a more accessible and creative medium, and would not be surprised if VR programming becomes a new introduction course to the major. Glad I'm graduating before that class!

My project was a style of creativity that I have never come into contact with, which is the reason I'm so grateful to have pushed my creative comfort levels. I like filming my subjects first, then adding sound and music in the editing room, but this process was recording dialogue first, then designing elements after that was something I've never done and struggled to be intelligent with my choices. A lot of third-party critiques helped to give me ideas and suggestions to improve the video. Towards the end of the project, I realized my 2017 computer could not handle

the amount of layers and nested sequences, and I had to decide when I've had enough of the buffering, constant crashes, and freezes. With all of the other courses and final projects that I had to work on during the process of this senior project, I wished I had done a few more corrections to get the project to where I wanted, but I'm happy that I got to complete it and learn a fair amount of this unique production experience. Projects like mine require a lot more planning beforehand to allow the editing process to be much smoother and confident. I had recorded the podcast without imagining what the fourth dimension would look like, so improvising dialogue about a space that we can't see nor imagine, was a true challenge for myself in the editor.

Although I wouldn't call this senior project a project that took me everyday of a year to make, It's quite interesting to see what I can conceptualize throughout a year with deep research and influences to drive my project even further. Comparing short 1-2 week art assignments to the 5 month long production of my senior project, time and effort is easily noticeable in each kind. Speaking with other students about their research project, there were similar opinions about writing a research paper first, then creating a project around that. The process is noticeably flawed, as the paper provides a framework for the project, which results in limitations for what we want to create. At least this is what happened to me. Working under the limitation was similar to receiving a prompt in a class and basing an art assignment on that. But after the completion of my senior project, I get curious about what I would want to create without any limitations and just my creativity and curiosity. I always believed school teaches us nonsense and it's all just a test of how well we learn topics and information, but this senior year has proven to teach me that I can make great things even with limitations so after I graduate I should go make the things I want without any limitations.

Going further, my art will continue to be influenced by the most recent knowledge released. As of 2021, we have landed a rover on mars and have observed condensation on the rover's legs, proving the presence of water and/or oxygen on the planet. And maybe one day, we will discover alien organisms on mars, most likely alien microorganisms, but we will never know what the future holds.

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