For the current and future pre-thesis students.
Inter_

between, among, in the midst of, mutually, reciprocally, together, during

Inter_Spring 2017 is the counterpart to Active. Each semester Inter_Active will be published for the students in Pre-Thesis and Thesis.
Question: How can we create spaces for intimacy between people who wouldn’t typically connect?

Statement: In order to address cultural issues like access to intimacy being decided by power dynamics and oppressive systems, we have to re-imagine design thinking to include artistic practice and play to start embodying speculative
Amanda Cosmos: So, are you limiting yourself to work on certain demographics that you want to try to mix or smash together?

Mattie Brice: I’m just looking at strangers. There’s a couple of things: one, there is the result of the election. A lot of New Yorkers I know were like “I don’t know anyone who voted for Trump” or “Who are all these people who could think this other way I can’t possibly understand?” We need to understand them because they outnumber us on some level, right? Another angle, inspired by this really strange story I have to tell you: I went to this exhibit The Game: The Game by Angela Washko, and she’s doing research on pickup artists. Have you heard of this?

A: Yeah, I remember hearing about it.

M: She’s been using Ren’py to simulate how pickup artists do, you know, pickup artistry-

A: Oh wait that’s different from what I remember.

M: It was pretty good.

A: That sounds fascinating.

M: So she’s been doing research on pickup artists and you play a visual novel encountering a specific pickup guru and his style and he’s going to attempt to pick you up and you go through choices to see how he reacts to all the things that you do. She told me about her interviews on why pickup artists do what they do and in their view they were trying to even the playing field. They say they are people typically not seen as attractive, they feel like they are 4 and below on the usual 1-10 scale. So for them, pickup artistry was an attempt to have a fair shot in a world where they are automatically seen as ugly.

That doesn’t excuse their shitty behavior towards women, but I can understand that as a trans person, where being trans automatically sets you to a 4, right? So if I understand that experience of being aware of how I’m blocked from intimacy and care from those sorts of social dynamics, I selfishly want to figure out what is a design process to help people be intimate with me. Redefining intimacy as well as a larger concept.

A: I just saw a tweet today that said name something intimate that isn’t sex, and someone responded “fanfic recs,” and I was like, “yes.”

M: I’ve been looking up a lot about non-sexual intimacy because I wanted to learn more how to become more intimate with women, because we have a shared experience, and often society tries to pit women against each other, and I hate that a certain kind of closeness is reserved for those we are sexually intimate with, where for me, I don’t get a lot of romantic/sexual intimacy very often, and men have a hard time getting close to me because of a lot of societal baggage. So I’m around women, particularly queer women very often, but I don’t necessarily want to go down that sexual path-

A: You don’t want to be in that drama pile.

M: Right, no, I don’t want to be in those drama piles. But I still want that closeness. I attempted to do that when I was back in the Bay Area but had to leave there, so now that’s a main motivator here. I want to design for that. But then you have this
A: Are you going to stick in the same age-range, because I’m now learning, because I’m mentoring an 18-year-old, through #BUILTBYGIRLS, that even communicating is hard because they don’t use email as much anymore, they’re like “oh, we talk through Snapchat.” I’ve tried and I just can’t. I was just discussing this with [two mutual friends] on LINE, which is not a popular chat app here, and I throw stuff up on Twitter but now even Twitter is seen as old.

M: Yeah, I’m thinking about this being primarily done in person. And here’s where the next fun detail comes in: I want this to be an interactive process expressed through course meals. I’d be serving food, experimental food that makes you interact with it differently and each other, and you’d be sharing this meal and through its design, through some sort of prompt or framing with play, you’d be interacting. It’d be an in-person, eating-together situation and this would happen over time. I currently have a 9-step creative process, and when you come in you’d be doing that first part of the process with someone, that first step, and the things you are served would be related to that step, to the play exercise I’ll have you doing. And then you’ll come for that until you feel you’re ready for the next stage.

A: This sounds like something someone really has to commit to, almost like checking into rehab. So it seems like an odd choice for someone on the closed spectrum, like “I don’t want to learn about other cultures or people,” as opposed to work that does a thing that tricks you into having empathy. How are you going to get people who are not committed to learning about other people to try this?

M: I’ve always thought of this as needing some element of caring involved. But consider the range of people you are acquainted with, you’re not necessarily close with many of them, right? For me that’s many people in my life. Maybe that’s more the sort of scenario that you would want to do something like this with. So enough where you know they are good people on some level, but I don’t have a read or hold on them very well.

A: I guess it could be like, when I was in college, in the classics club, there was a girl who I could talk to about classics and other things, but she was also, like, very weird Republican, family Republican, and I was like “oooh, let’s just avoid that topic.”

M: Right, I do feel like I had those sorts of relationships when I was younger, I figure because you’re just around more people when you’re younger because when you’re older you’re working and tired so you’re around less people?

A: It’s effort.

M: Yeah, it is. Maybe it’s also because you didn’t have as strong political opinions when you’re younger too. I imagine this can be used in different ways, like conflict resolution- Right now I have
this wild idea to have a restaurant-design studio setup- to be honest, you know where I get this inspiration from? You know those sort of bar anime and Japanese shows around a bartender or chef where people come in with drama and problems and talk about it over food?

A: You want like anime Cheers.

M: Right! I want to have like a really cool design Cheers studio. A place that facilitates people’s relationships in a structured way. I’ve always wanted these disparate things, when I was younger I really wanted to have a bar or cafe, I’ve always enjoyed cooking, I was into figuring out relationship stuff.

A: We’re in Crown Heights, gotta buy yourself a plot. Get a government grant for it now. Say you’re going to do this thing and you can do it here.

M: I need to get on that. And I do think about that, like this as a neighborhood spot, with regards to gentrification, like how about doing this with your neighbor or someone in the neighborhood originally from here? I know I want to respect this neighborhood as much as possible, but I find it hard to even start that conversation with those who were here before me. It’s not that people aren’t open, it’s just finding that opportunity, finding who is an original resident here without feeling like you’re just using them for something. So this can also be used for something like that, less about people who would obviously hate each other and not want to talk and more people who would if they have the right context and opportunity.

A: Yeah, Joel [her boyfriend] talks more to the neighbors than I do.

M: I hate this suburban American attitude of not talking to your neighbors that was instilled in me, it’s such a damaging habit to have here in the city.

A: It was the same in Boston, you don’t say hi to your neighbor in Boston. I had to get used to saying hi to people here.

M: At least here in Crown Heights people are very friendly.

A: That’s why I get mad when my coworkers are like “Oh no, Crown Heights,” and I’m like “Fucking come to Crown Heights, it’s so good, it’s my favorite place.”

M: That’s so true! I’ve had multiple dates who were like “I don’t think I can go on dates with you because you live in Crown Heights” Are you kidding me? But yeah, I feel like there are opportunities for connections here but we are less inclined to do that because we’re being mediated through social media, we are constantly tired out by our jobs, by capitalism in general, and the energy of this space.

A: I know. When I get home I just crash.

M: It’s really hard to have the energy to go outside of your comfort zone after you’ve just been ground down, right? I’m trying to find a way to get people from different walks of life to connect despite that. Like, you know when someone can’t explain why they only have white friends or collaborators, and they aren’t trying to only have white friends, it’s just that they only stay within a certain comfort zone. So I would look for those kinds of people, who don’t
mean to only have white friends but aren’t good at having a diverse range of people in their lives. I want to facilitate those sort of interactions.

A: Is this project just theory or something you’re going to do in practice?

M: Both. I’m making myself do both.

A: I’m just wondering where you’re going to get the funding for this food.

M: Oh I have to self-fund that. But I’m applying for residencies and want to start looking into grants to help me do food experiments. I’m mostly thinking of doing a literature review for my thesis and gathering relevant theory. Then extrapolating as much as I can from what I’m looking at and applying that to an experience. I will be creating at least one sit-down meal experience, but it’s possible by the end of my thesis I will make a full course meal. I am promoting a design-studio mentality, I will be design consultant and working with other people. But I also have this artistic and food experience going along with it, so I might potentially be talking about a restaurant too. Like a bar.

I was actually inspired watching Nancy Silverton on Chef’s Table in her mozzarella bar, which is like a bar, but creates and serves mozzarella small plates rather than just serve drinks. She decided to do that because as you become an accomplished chef, eventually they stop cooking as much and moreso runs it and creates the recipes. But she felt disconnected from the food and people doing that so she decided to open up this bar where she’s cooking and serving and talking to people. And that really resonated with me because I really want to interact with people.

I’m putting forward how I think something playful can actually change things, all of the interactions will be based off games and play. Right now I’m researching more into what about play can actually create bonds between people as opposed to incidental bonding of just playing together no matter what that playing is. I really want the thing I design actually matter and impact the relationship.

A: What’s your definition of play in this context, like, for me, I don’t like playing drinking games, but I like drinking, how do you make something that’s approachable and accessible as far as a game with food goes?

M: I have a very broad view of play. If I had to define play right now I would say it is an appropriative act that cannot be fully anticipated. So a game is something that is appropriated by players. Games are objects or concepts that facilitates relationships while play is the enactment of said relationships.

A: You need your food to be a system.

M: The way the food is made and the way it is served has to imply an interaction.

A: That makes me think of shabu shabu, it’s always difficult to set up.

M: Right! So earlier we were talking about that make-your-own udon and pho-

A: You see people fight over hot pot all the time, like in Princess Jellyfish, “No, don’t put the meat in!”
Question: What happens when being a privacy advocate becomes the default setting?

Statement: People forgo their privacy because have been conditioned to live in opt out culture. We do what is easy. We keep the default settings. We say yes when we shouldn’t. We opt in at the first sight of a reward. We have become lazy and companies are exploiting it. They conceal the data they collect, make it difficult to opt out of a service and make decisions for the consumer without a second thought to ethics. It doesn’t have to be this way though. We could “Opt In” to fight back by tying simple, mindless actions to real world acts of activism that are aimed at making a statement about privacy. The goal is neither to harass, or entertain, but rather to bring attention to a real world problem. It’s time to shift our attention toward privacy and force a second look at the policies that companies are taking advantage of behind our backs.
Nicole Cote: Why don’t you tell me how you even got into privacy. Like, why privacy or what’s your backstory?

Kathleen Bryan: For me it happened in college. I was in my sophomore year, and was an advertising major. Up to that point I had been hell bent on going into advertising. I wanted to make pretty billboards, I was a very artistic kid growing up. At the point I was introduced to privacy, I hadn’t had much exposure to technology. Then one semester I had a class where this professor came in. He was from Walt Disney. He comes in and he puts up all these Tweets and all these, kind of maps on the projector. I’m looking at it, and I start looking at the board, and he starts pulling up all this data. I’m like, wait, how do you have that? How do you know that this person went to this page, and that they know this person? He started sharing these comprehensive maps of every single person that a given person had talked to during the day. Every single site the person went to and everything that they did. He started going into how based on this data we could now start to predict behavior. Everyone else in the class was aloof, but I sat through the class shocked. I remember storming up to him afterwards and being like, “Who are these people. You’re telling me that they know this information and that they know everything that I search. There’s just someone basically watching me online all the time, and we as advertisers are going to be those people.”

Nicole: That’s so crazy.

Nicole: Yeah.

Kathleen: That day after class he said to me, “Kathleen, it’s so much worse than this. This is only the surface.” This was four years ago. At the time, no one was talking about it, or it at least it felt that way. I went home after class that day thinking surely this man is crazy. I started looking. I was like, what’s a cookie? What is this? And I start finding them. I was like, these things are on my sites. These [cookies] are following me everywhere I go. It kind of started this obsession where I was just reading about it all the time. I was reading everything. I was looking at everything, seeing this problem everywhere. I started just really paying attention. I would notice when sites would ask for stuff, and I started being very aware of where my data was going. After about a year I had read so much stuff, a lot of articles, a lot of books, and I began talking to the people around me about this.

Nicole: Didn’t you take a tech class too?

Kathleen: My decision to do that was largely fueled off of this.

Nicole: Off this Disney class?

Kathleen: Yeah.

Nicole: And that was in college. That was sophomore year?

Kathleen: Yeah. Sophomore year in college I enrolled in a C++ class. I was taking C++ for the first time, and I started getting into all this tech stuff. I just kind of stayed interested in it, but what made me more interested was that as I told people about it, it was as though no one around me had any idea this was going on. They were just as in the dark as I had been. The more I told people about it the more they were like, “That’s not happening.” I would go in and individually show each person. I would be like, look at this, look at how it’s tracking you. Everyone I showed was shocked, and at that point I realized that there was no one out there even telling anyone about this, and that it was being hidden.

Nicole: And that would’ve inspired your first project to
kind of inform people. I think it was to kind of like more inform people or show people their own data or have people see themselves in their own data. Maybe thinking about doing some on campus or stuff like that. Is that what informed that?

Kathleen: Yes. I wanted a way to show people in an interesting way what was happening to their data. I felt like no one around me knew, and I felt like the knowledge that I had accumulated people weren’t aware of to the extent that I was. I wanted a way to engage the mainstream because I feel like maybe a technical audience is interested, but a mainstream audience is difficult because they almost feel they have no reason to care. At first, it was this conversation like this is what a company could collect about you, and no one outside of a technical audience cared about that, but then when it shifted from that to this IS what companies are collecting about you, it was kind of a different conversation and people were upset.

Nicole: Are there any seminal works or just things that you read or saw or things that you went to that kind of further sparked your interest in this, or is it just that one class?

Kathleen: No. Actually, I didn’t really know that there was anybody else interested in this. At first I thought I was going insane.

Nicole: As in paranoia?

Kathleen: At first I thought I was going insane. At first I thought I was the only person that saw this happening because I understood advertising and could kind of see where it was going. I saw advertisers and companies controlling people’s behavior. I saw the potential for this to be really bad. The first thing I found was the underground hacker community. I found a girl who was giving talks about it, and I found her work. She was doing research around security and privacy, and she was a professional hacker. I flew to New York City from Texas to talk to her and meet her because I found out that she worked with the EFF (Electronic Frontier Foundation.) I started researching what the EFF was, and I was like, I want to work there, and with you because I believe in this. This needs to change. So, I went there, and I discovered that it wasn’t just me. There was actually a huge community around privacy advocacy. That was shocking to me because as someone that came from a completely non-technical background that just thought I was a crazy advertising student, now I had discovered entire community of people who cared about this, and that was really cool.

Nicole: The activism and things you’re talking about here clearly inspired what you’re doing now, but how did you change from that to what you’re doing now, which is more kind of upsetting the system in some way. Rather than informing the public you’re kind of being intentionally delinquent.

Kathleen: Ok so when I first came into this program I came in and I was basically like, “I’m going to make security products. I’m going to fix the user experience for security products. That’s clearly the problem. People can’t use security. Otherwise everyone would be.”

Nicole: Right.

Kathleen: I started taking security classes and started getting into. I would even make better interfaces but It didn’t seem to make any difference.

Nicole: People still weren’t using it?

Kathleen: People weren’t using it. What I realized was that people just want the defaults. Whatever software everyone else is using. It doesn’t matter if you make a default that is going to bug you every 15 seconds. A lot of people will just leave the default regardless of what
it is. I guess going into pre-thesis and delving into what makes people care, I formed this theory that people a lot of the time don’t care about anything. A lot of people are just perfectly content to float along the surface. I guess it got me thinking. It got me thinking that companies know this, and are exploiting this. They’re exploiting the fact that people don’t care and that they won’t opt out, and then [the companies] are hiding what they’re doing. If they can just hide it enough so that people can’t actually see the full picture, then they can get away with it and people don’t get upset. In my mind I was like, “Okay well what if we do the same thing back? What if the roles are reversed and we use this same method to push our own initiative and now the default is privacy, and the default is harassing people to make change? Does that now shift the system because what is happening is that people just do whatever the standard option is so I guess that’s where the idea was born.

Nicole: How does working in advertising right now give you more access or advantage to what you’re trying to work out?

Kathleen: I don’t want to bring my company into this in any capacity, but it is alarming working in advertising because you’ll go into a meeting for a big brand, and they’ll have these data maps, much the way that the Walt Disney data was, just up on the walls. They’ll say, “Okay, because the consumer downloaded this app we can now see all of their credit card purchases, and they have it all mapped out. You’re literally watching the customer journey on a map from a sample customer like here are all the purchases they made. If they made this purchase we’re going to market them this, and if they made this decision we will do that. You start to see that just because you downloaded an app they [advertisers] now know all of the apps that you downloaded. They know all of the locations you frequent. They know all of the purchases that you made in any given day. They know where you are. They know what you’re searching. They’re directly manipulating your behavior based on this. I think it’s one thing to hear this, but it’s another to be the person in the room making the decisions for what to show people to change their behavior. I think that’s what really hits home for me.

Nicole: Yeah, but of course people aren’t going to stop using their apps, I don’t think. I like your small acts of activism that you’re doing, but how did that become a gain? You’re like, I want to make these small acts of activism, but I want it to be a game that people play through.

Kathleen: It became a game because I started to think about what is simple and easy. First of all with games you’re kind of playing off this rewards system. People play games because they’re getting this sense of instant gratification. Their reward systems are going off with each accomplishment in the game.

Nicole: Like you’re forcing then to do?

Kathleen: Yeah, it’s kind of manipulative in a way.

Nicole: Because they’re not going to do it on their own.

Kathleen: Yeah. Well you’re persuading them into an action with very simple, rewarding and addictive actions.

Nicole: Like the methods of persuasion we learned in HCI.

Kathleen: Exactly. Very simple, small digestible behaviors. It’s like what if you made something that is really fun and addictive that people are just doing mindlessly. They’re doing this but that’s actually being tied to some very real world stuff.

Nicole: Yeah. Do you think your game is a mirror of the advertising industry’s treatment of the public?
Kathleen: I do. I think that the game is a perfect mirror of what is happening in the industry to people. For instance, I worked on a client, and they came in, and they said, “We’re basically going to rip off our clients a little bit more. We’re going to take their rewards down, and they’re not going to make as much money now, and they’re not going to be rewarded as much.” And they’re like, “How do you fix this problem, Kathleen?” I was like, “Well, you can make a game,” and they pushed a game out, and it was very successful.

Nicole: Wow.

Kathleen: So it’s like how do you get a consumer to do something that you want even though it’s not good for them. You could use a game to do that.

Nicole: Make it fun.

Kathleen: Yeah, but now I guess I want to know, if you want them to do something that is good for them? How about a game?

Nicole: Your project is like the Fruity Pebbles of cereal. It’s like we have to make it fun because it’s awful and disgusting. We want to get our point. So the victims in your game are they the public or are they some other actors? Who are the targets of the game?

Kathleen: The targets are going to be the people that are pulling the strings behind the scenes. These are the people I want I want to kind of feel the effect of this. I don’t want the user to be the target. In fact, I’m almost thinking about ways to proxy it because I don’t want the actions tied to their real accounts. I think the beauty of this idea it is that the tweets and annoyances come from a ton of different accounts. They’re targeted at these organizations and people that are just actively making a ton of money off taking data that they shouldn’t have access to in my opinion.

Kathleen: I want to break the rule a little bit, and just kind of make the Congress and data brokers cry out and say why is this allowed, so then all of a sudden there’s a light back on them, and it’s like, “Well, what are you doing?” You can’t really make a law about what can’t be done on my end without kind of taking away some of your own bad behavior.

Nicole: Tell us a little bit more about the game. I’m trying to visualize this a little more. How would it play out?

Kathleen: I think I’m still working on the way it looks, but right now it’s a little computer virus that I illustrated.

Nicole: So, it looks totally safe and like we should click on it and play with it?

Kathleen: Well, it’s a cute computer virus. It floats up and down in this digital world, and what I want to do is have the player opt into Facebook and opt into Twitter. The character floats around and you’re collecting your Facebook data back. So, you’re seeing your name, some of your actions. You’re collecting your own data, which is kind of like an awareness tactic in and of itself. You’re also seeing little cookies or little software symbols to kind of represent the cookies that would track you or the companies that are watching you. As you hit these things you get maybe a little reward sound, and then once that hits that’s sending a Tweet to congress, that’s posting an e-mail, that’s doing this and that. Every object you catch, that will be tied to a real-world action. It can be any game. It can be an endless runner. It could be a virus floating through space. I think I picked the virus because it seems interesting. It was cute and approachable.

Nicole: The cookies are cute too.

Kathleen: That’s where that idea came from. I just really
wanted something simple and mindless that people just wanted to play just because it was cute and fun, but in reality, it’s tied to some real world stuff.

Nicole: What are some challenges you have faced throughout kicking out the game or designing the game and stuff?

Kathleen: I think the hardest part about my project so far was just arriving at the idea. I think I played for a long time with how to engage people with my project, and I took it a lot of different directions. I guess in the end it just seemed like taking it this direction would have the most potential for creating change.

Nicole: Since you sort of have a project now I’m wondering if either, one when you were thinking about it or now that you have an idea if there were any sort of tech things, games, or apps, or anything that kind of inspired you to make this? Anything that we could go look at that you think are interesting, maybe that doesn’t do the same thing, but if we’re interested in your work we might check out?

Kathleen: Yeah so Daniel Howe and Helen Nissenbaum’s extension Adnauseum was a huge inspiration. It’s an extension that actively obfuscates your advertising preferences because it clicks every advertisement on a page, essentially concealing your true interests. I think this is really interesting because it’s useful, but also because it’s making a statement about privacy at the same time.

Nicole: That’s Cool.

Kathleen: There’s also ScareMail, which is interesting, which shows your email as though NSA is reading your e-mail, so it’s kind of scaring you based on that. There is Vortex, which is a project done by Alex Law from Parsons, which is a game that swaps users’ cookies.

Nicole: Oh, that’s weird.

Kathleen: Yeah it swaps the cookies so as to anonymize them online and just confuse advertisers. I thought that was pretty funny. Then there was the Glass Room, which I think is really kind of the pillar of what I was originally trying to do, which is just bring awareness to the mainstream in an engaging way.

Nicole: Just one last one.

Kathleen: Yeah.

Nicole: You kind of have your game, and you kind of have obviously your inspiration, but what do you think about this going forward? What do you think you’re looking forward to next semester in terms of developing this more? How are you going to do that?

Kathleen: I feel like my idea is pretty ironed out, at least hopefully until it offends a huge group of people or something, but-

Nicole: Which might be the point.

Kathleen: Which yes, may be the point, but I think for next semester it’s going to be a lot about what game is engaging to play? What is the action behind each thing that you can still do with an app, I think is a really big one. It’s going to be really important to get in there and say, “Okay, I can definitely post a Tweet from an anonymous Twitter or a user’s Twitter or I can proxy that in some way, or I can make a phone call in app. What actions can I do that can still be meaningful?”

Nicole: Right.

Kathleen: So that’s one of the big questions for next semester. Then there’s also the issues with the App store. The App Store is probably going to disallow this for a lot
of reasons—epically Apple. So that leaves me kind of at, what are the web options? Can you still make calls from web from a bunch of different numbers? So, I guess it’s ongoing.

Nicole: That all sounds like a good direction, is there anything else we didn’t ask you that you wanted to share with us?

Kathleen: I think that’s all I got.
**Question:** How can we help young adults to gain more financial literacy?

**Statement:** The process of learning differs for people, but undoubtedly, first is awareness and then comes engagement. The lack of financial literacy in our nation did not come from the lack of resources but rather the lack of self-awareness and proactive engagement. By applying human-centered design practices, technology and media can increase financial literacy among young adults.
Tell me more about your concept. Why did you choose to work on financial literacy?

My initial brainstorming actually focused on the question of how we can achieve work-and-life balance in our modern society. Having lived and worked across three different continents, I have had the opportunity to experience what work-and-life balance means to different individuals in different cultures. As I always try to take the best of every cultural experience I have had, I wanted to apply what I think it’s the better work-and-life balance to my current situation, and hopefully influence the people around me. After all, I have noticed a lot of unhappy people at my age. It is not because they are not having a good job or a good life. It is because they’re always seeking for more and better. But let’s not forget, there is always a trade-off. How you manage your time and resources will determine who you will become one day.

So my initial research revolves around how smart devices and applications can help us live smarter and work more efficiently, so that we could have extra times on hand to do what we wanna do in life. I then went on to research the human psychology of happiness, satisfaction, and contentment. These researches were great but I had to narrow down the scope in order to build on something more tangible for my project. So I landed the concept of some sort of self-management that could help us achieve a better work-and-life balance. For starters, our personal finance is one of the most crucial skills we need to have but most of us lack. We live in a world that most of us have to work in order to survive. But how many of us actually understand how to manage our finance? Are we just working and living paycheck to paycheck? Without proper personal financial management, we will certainly not achieve the kind of work-and-balance we imagined in life. In fact, a stable personal finance is just as important as a healthy state of mind and body. That is why I chose to work on financial literacy because I want to help people get to where they want to be!

Is there some sort of personal force driving you towards this?

Growing up, my parents have always taught me the importance of “knowing the numbers”. I think this has to do with the culture that I came from. So it is surprising to find many of my peers, close friends, and even my significant other don’t understand the value of personal finance. And this matters to me because I know so many people have real talent and potential to do something great in life but they haven’t…due to their financial situation. You might think that it’s not to hard to learn personal finance, and you are right. There are tons of tools out there once you googled. But the question is, why aren’t people using them? So that is why I decided to pursue the project of financial literacy. I hope to use technology and media to facilitate an effective learning experience.

Tell me about your process.

As I mentioned earlier, there are tons of resources out in the market already; therefore, in addition to look for what is existing in the market, I also wanted to understand what the human needs are. My process began with literature scan. I looked into existing digital publications, traditional prints, scholarly journals, innovative websites and mobile applications, local meet-ups, public library workshops, and I also reached out to industry professionals for informational interviews. I then sent out surveys to my peers to understand what their needs are, such as whether they’re self-aware of their current financial situation, what tools they are currently engaged with, and etc. From all of these preliminary research findings, I moved onto brainstorming for prototypes that could either
raise individuals’ awareness or aim for better interactive experience in engagement. For now, I am still trying to figure out what good mediums to prototype in my next phase.

**Have you explored loans in your research? In financial stability, loans are attributed to it.**

No, I haven’t. I personally have not taken out a loan but do know lots of people around me who have. I have to read up more on it and understand the dynamic of the loan industry and products. Luckily, I have friends working at online lending companies, so I plan to reach out to them in my next steps. I think there could be an area of opportunity to look into how people refinance their education loans or any loans for that matter and see what I can do from there.

**Tell me about your first prototype in your quest to find financial stability.**

My first prototype was actually a survey. I needed to validate my assumption of whether people actually care, worry, or want to learn about their personal finance. I think the worst decision a designer can make is to go into design without a purpose, so I needed to make sure my design serves a purpose of making people’s lives better. From the survey results, I can now confidently say that financial stability and financial literacy are definitely something people care about.

**If you could write a book about financial stability, what would be the title?**

“Let me teach you something your parents didn’t teach you.” In my research, I found that most people learn financial advice from their parents. In fact, there are already books dedicated to teach parents finance so they can teach their kids. For example, Beth Kobliner wrote a book called Make Your Kids a Money Genius (Even If You’re Not): A Parents’ Guide for Kids 3 to 23; Lucy Love wrote Smart Kids Smart Money: The Ultimate Parent’s Guide to Teaching Kids About Earning, Saving, Giving, Spending. But honestly, I think the best way to reach out to people is not to write another book. And that is what I would like to explore next in my project!

**What do you think is the best way to improve young adults’ financial literacy right now?**

I think universities or maybe even high school curriculum should make financial literacy a mandatory course. I received some stats from one of the interviews with a financial advisor that only 17 states require students to take a high school course in personal finance, only 5 states require a stand-alone course in personal finance for high school graduation, and fewer than 20% of teachers report feeling competent to teach personal finance topics. There are a lot more stats I can show but the point here is I think the best way to improve young adults’ financial literacy if it is not from their household, then it’s gotta be through school!

**In addition to financial literacy, are you interested in other aspects of finance?**

Yes, I am indeed. Financial literacy is only a starting point. I still want to explore a lot of things in this complex financial world. Currently, I am working on a financial longevity project for aging population through an OpenIDEO challenge. Our group was shortlisted as one of the top five ideas where we designed a service blueprint for Credit Unions to help their age 50+ members to achieve their lifelong dreams and aspirations. If you want to learn more about our project, you can come to the THINK
conference next month. We will be presenting on the stage. In addition to the OpenIDEO project, I will also be working with Fidelity Investments this summer. I will most likely be working on designing for better financial products as a User Experience Designer. But on top of that, I will be involved with their corporate social responsibility initiatives where they partner with local nonprofit organizations to teach high school teachers financial literacy, so that they can teach their students. It’s gonna be exciting!

**How do you imagine your final prototype would be? How do you think this will help people manage their finances?**

Initially, I wanted to design a site that can be easily integrated into any educational institution’s curriculum or website, but there are actually tons of existing resources in the market. For example, did you know there is this tool called iGrad within the NYU network? It comprises of financial lessons and loan calculators that you can use! I asked 2 students, 2 professors and 1 academic advisor last week whether they knew about iGrad and surprisingly, no one has ever heard of it. This finding just shows that simply designing for the digital screens is not the solution. To brainstorm for my final prototypes, I wanted to make sure my final products will be something with great discoverability and ease of use. For discoverability, I was reminded how enthusiastic my classmates were for the career fair and orientation freebies. I recalled that everyone was even messaging each other on tips of where and how to obtain certain highly sought after freebies such as calendar planners, USBs, T-Shirts, etc. Leveraging on this demand, I figured it would be great to have a final prototype that can be easily distributed as a freebie in those events. So my first idea here is a smart card case or a smart phone case that will display some sort of meter that notifies you whenever you make a transaction or when you are reaching your spending limit. In the past, when people paid with actual cash or even precious metal back in the days, they would feel the “pinch” of making that transaction, however, with the modernization of electronic payments, people nowadays feel less “pinch” whenever they make the same transactions. This meter would help re-introduce the transaction “pinch” that has been missing in current everyday transactions. Another idea I have for prototype is to integrate a bot advisor through Amazon’s Alexa skills. The interactivity with Alexa will promote the ease of use for my users. When you come home at the end of the day, your Alexa will give you a quick brief of your daily spending and give you advice on your financial wellness. I also thought it would be cool to partner with financial service companies on this Alexa skill development, so that the financial literacy information can be up-to-date! Both prototypes for me is really to explore ways to integrate technology and media to help us make better financial choices in life.

**What is the current state of your prototype?**

Currently, I have a cardboard smart phone case where my classmate, Gabriella, helped me build. This case has a string of lights attached to it. The purpose of the lights is to show one’s financial well-being. Different stage of light indicates different status of one’s financial well-being. The idea is the light can eventually fetch data from your banking account, so that you receive a “warning” or some sort to remind you your current financial status.

**What will be your next steps?**

My next steps include 3 major parts: 1) project plan, 2) define my end goals, and 3) figure out what to build. In terms of project plan, since this is a thesis project, I won’t have unlimited time and resources to work on this topic, I need to set hard deadlines for myself for each
stage of ideation, prototyping, testing, and putting the final deliverables. In the past few weeks, I have been in contact with various experts in human-centered design, I realized the importance of defining a more focused target users (not just their demographic but their behaviors and attitudes) as well as my end goal. For example, I was repeatedly advised that I won’t be able to change everyone’s life in such short period of time, so I should think about if my end goal is to raise awareness or make impact through certain behavioral engagements. From there, I will be able to figure out what medium I want to deliver my final “product” and what type of impact I want to make through my thesis project.
I said:

Are my hands, my feet, my breast
May claim the body of a friend's collection; but life served no end.

Ergony! — One day
The stone was raised:
I heard some thunder far away.

The sole of flames that trust
Is no more accurate.
My hands, my feet could reach
Though my head a sheen of fire washed
Life of the dead;
O Love.
Question: How can we use digital visualization--where the original artistic content is turned into, analyzed, and engaged with as data--as a tool to provide otherwise undeterminable insight into the materiality of the diaries of the Victorian women who compositely wrote and lived as Michael Field?

Statement: The process of turning hand-scribed life writings into data for analysis and visualization is a multi-layered endeavor. Undoubtedly some content has to be lost and is simply not capturable as data; however, there are substantial gains to be made as well--insights that might have been otherwise undiscoverable or unlikely so. By working through the whole process, data creation to digital visualization, with the loose leaf material the Michaels included in their diaries, I hope to create a resource that allows us to better understand these works and better think into the ways visual representation can provide new insight into archival information.
Can you tell us about the diaries you’re working with?

Yes, for this project I am working with the diaries of Michael Field, which are, essentially, 30 volumes of a hand-written diary of two women, an aunt and a niece: Edith Cooper and Katherine Bradley, who were lovers and artists--poets, who wrote jointly as one artist called Michael Field in England during the Victorian period (in this case late nineteenth to the early twentieth century). What’s important to realize here is that the Michaels were very much aware of a potential audience--it seems they really hoped these would be read, and so that makes for very interesting material to work with.

How did you get involved with this?

Well, the diaries are currently part of a large research project called the Victorian Lives and Letters Consortium, where the life writings of a number of Victorian figures--Ruskin, Carlyle, Gladstone, and Michael Field-- are being digitized. I became a part of this project about a year ago after hearing a talk on the Michael Field Diaries by Professor Marion Thain who is the director of the project. I’m now a contributor, a volume lead of the 1913 diary, and so I’m working to transcribe that hand-written material and ultimately turn it into usable data and metadata for potential future work. Working with this material textually in this way really helped in inspiring me to tackle it with this visual process.

What is their current existence and what is their future without you?

So, right now these diaries are the original physical, material objects. They are hand written, scrapbook-sized notebooks, and can be accessed via the reading rooms in the British Library. They aren’t for circulation, so you’d really have to look through them there in the library. That said, the BL has helped scan all of the pages of the diaries, and those images are currently housed on the project’s website in a temporary archive. Each page is an individual link to an image, though, so there is a lot of work going into the transcription to make this more interactive. In terms of the future without this work, my own small portion and everyone else’s, I guess they’d just stay there in the BL and would only be accessible to people who could make the trek to London and obtain access, which would be unfortunate.

What are your thoughts on them being in the British Library?

That’s kind of a tough question. I mean as someone interested in literary scholarship, and just historic material in general, I definitely appreciate that the BL has housed them, and taken it upon themselves to preserve them; that said, being only accessible via the reading rooms at one library doesn’t really give them a full life. There are just so many things in these kinds of copyright libraries, or any library really, and there’s a lot that’s just packed up that no one engages with or knows about. Another issue I see here is how they’ve been maintained. So, the relationship between the Michaels and these diaries--and their understanding of what they are--really developed over time. This was a 26-year endeavor, which is an incredibly long time to keep at one process like this, and there’s a lot to document. The Michaels at times very actively added collected material to include loosely in the pages of the diaries--various things from their lives: drafts of poems, letters they’ve received or wrote to each other when they were separated...all sorts of stuff. Some of this they pasted into the books--making it a permanent feature, and some they simply shoved in specific pages, and so when you held the diaries and physically engaged with them this stuff would fall out on the table or you’d open a page and something would be there you weren’t expecting. Rather
recently, the British Library gathered all of that loose leaf material out of their individual diaries and glued them into one new book. I mean, with all due respect to the BL, that’s a little crazy to me. I can certainly understand the worry that these items might be damaged or lost, but by doing that they’ve really taken these items out of their context, and certainly it’s fair to say that you can no longer read the diaries as they were intended. Also, now that you’ve taken them out of context, when you are reading a diary how would you know that something is missing? Their indexing of this material pushes it aside in some way. I don’t believe that was the intention, rather that they hoped to better preserve it, but yeah, it does upset me a little. Seeing how this material has already been physically separated it does seem prime for investigation.

Can you tell us about your database?

Yes! So, like I said, all of this loose material was made into one new diary, and added to the end. And, of course that makes them now images in the temporary archive. What I’m trying to do is figure out what that stuff is, essentially, and trying to find a way to make it useful to people who might want to engage with it (now that it’s not where it should be); I also hope to just look at what the Michaels have collected and not decided to permanently attach to the pages of their work. That’s a very interesting decision by very conscious artists who worked diligently for decades to create this joined artistic identity. Really, the materiality of the diary and how these loose objects play a part in that, is fascinating to me. As a literary scholar there’s a lot to investigate here, but it’s not currently in a format that’s conducive to research or exploration. I’m trying to see how visualization can lend itself to giving a new life to this material in a situation where the formal archival processes have in some ways failed the material. I’m trying to find a way to use data viz as a tool that can allow us to better understand this material and perhaps gain a perspective that might be otherwise unknowable through traditional scholarship methods. I’m not 100% certain on what I’d envision the final product to look like specifically at this point, as I’m still sifting through that material. However, I know I would want it to be some kind of visualization. I’d hope for it to be interactive or searchable (I’m not sure which is the best word to use just yet!) in the sense that it can serve as a tool and thus doesn’t provide just one statistical reading of the material or only one answer. That’s not really what this is about. There isn’t an answer I am hoping the viewer takes away, rather I’d hope the work opens more questions on this material. I’m not trying to convince the viewers of a specific opinion with this visualization, but would rather want them to use it to form various kinds of their own new perspectives. The scholar Joanna Drucker wrote in her book Graphesis about two different kinds of visualizations: “representations” and “knowledge generators” where she explains a “representation” would be something like a bar chart that represents the statistical understanding, and a “knowledge generator”, like a bus route map for example, which provides various means for interpretation; that kind of thought is what I really hope to employ in this project. I’m not trying to say one form is ultimately better than the other, but it will, I think, be important to think into both. There are a few “visualizations” that I have in mind as inspiration. For example, recently Stanford’s Center for Spatial and Textual Analysis, and Literary Lab, among other research groups there, have done a number of wonderful projects that I continuously think about when planning this one. Projects like the Mapping of Emotions in Victorian London, and Mapping of the Republic of Letters are a few I have in mind. I think that both of these projects provide perspectives that would otherwise be unattainable--without the visual aspect. Of course, those are large mapping projects done by numerous researchers, and I’m neither working with GIS data nor have a team with which to develop this work, and so the dynamic here is a little different, but I hope to do similar justice to the Michael data, though perhaps on a smaller
scale. Ultimately, I really feel that visual exploration and presentation needs to be employed much more, both in the humanities generally and in very large archives, and that there’s a lot to be gained through this type of work.

**What are some of the ideas you have for this dataset?**

Well right now it’s a pretty large task of turning this artistic content, and for lack of a better word “qualitative” material, into data. What do I call data, right? It takes a lot of thought to create the dataset because, as someone who would traditionally look at these diaries from a textual perspective—identifying literary nuances and difference—for tagging you need to put something down as a concrete label. That’s how you make it a tool. But, what’s too much tagging or irrelevant to the overall materiality of these objects—which is what I’m trying to understand? Is it better to under or over label and where does interpretation come into play? It’s treating material that I’m rather familiar with in a very different way. Thinking about historical, cultural content as one would a search query. Right now, I’m really trying to figure out what this material is and to find a tagging system that it can fit into. I’ve broken down the data into five general layers of tags: whether or not it’s loose leaf; “type of object”: poetry, letter, pressed flower, etc.; “source”: if it’s a letter then who the letter writer is, if it’s a newspaper clipping then the paper it’s from...; “key terms”: if it’s a poem then the name of the poem, for example--this one is really interpretative and so difficult for me to make a judgement on sometimes; and the last tag is “hand”: thus, if this material is handwritten who wrote it, Katherine or Edith? Michel or Field? And, so, I am tagging each page-image with these tags, but of course in real life a physical page in a diary has a front and a back--what if the front really fits under one tag and the back another? I’ve also added these overarching object tags, so for example, maybe five pages in a row are letters written from Edith to Katherine, but there aren’t really five letters, just five pages of the same letter. This is something that has proved really tricky recently: do these items go together as one object (are they all notes) and what about the opposite: I know that these two items were on the same physical piece of paper but I would call them different objects (a letter and a page of notes, for example). It’s a lot to consider. In another project related to Michael Field I’m thinking into how we would tag variances and potential misquotes in the work to turn it into textual metadata for the digital archive, so it’s these small case studies that hope to address how we treat this very nuanced information. Here, for visualization, the tagging system has to be tighter, but representative of all the information, and in a way that’s useful to potential users. So, that’s where I currently am with this.

**Do you have any examples of other datasets that are waiting to be digitally discovered? What datasets in the humanities do you think lend themselves best to this process?**

Yes! So, the Victorian Lives and Letters Consortium works with life writings (thus diaries, letters, collected papers, notebooks...) of literary and/or cultural figures. I think that material is prime for visualization and digital analysis in this way; fortunately, there are already a lot of people making that type of content digitally accessible. Digitization of this material is really just the start, though I hope it is seen as a highly significant and noteworthy achievement in and of itself (!); but, to me, it’s one that can open up even more doors for research that couldn’t have been conceived otherwise. If you think about it, this material tends to be comprised of thousands and thousands of pages of delicate paper that is itself a historical artifact. You cannot have people flipping through this stuff too frequently; but then how do you use it! Libraries tend to scan them as images with very high resolution, which is great as a preservation method, but very difficult to use for research unless you know those images exist, and you know exactly what you are looking for and where it would
likely be in the work. It’s not really meant for browsing or searching. This is where these digital projects show their importance, and can really help. But, to get back to the question at hand, yes, very large collections of source material especially those that are not already commonly available (novels and poetry tend to already be published and sourceable elsewhere, for example). The American Museum of Natural History has a project going on right now working with Darwin’s manuscripts, which he left to the Cambridge University Library—transcribing them, making them digitally available and useable going forward. I think that project is another great example of the type of material that lends itself best to this process.

If the creators of the diary could see it today what do you think their thoughts about this would be? What questions would you have for them?

I think that the Michaels would be pleased to see that their work lives on more than 100 years later, and that people are interested in understanding this joint literary life they’ve created. I’m not sure they could have ever expected anyone would be engaging with it in this way! It was their overall goal, I believe, to leave it to the British Library, which their literary executor Thomas Sturge Moore was successful in doing; but, to see us puzzling over the nuances of their life in this way would probably be significant to them—they spent so long developing this work and their combined artistic existence in this way that I do think they’d be appreciative to see that it has stood the tests of time. In terms of questions, I think I would really like to know how they saw the diary—what it represented to them—and how that changed over time. We can certainly make predications from the material we were left, but it would be fascinating to hear it in their words, if they chose to let us in on that knowledge!

One last question: before you came to this idea what other prototypes or ideas did you move through?

I moved through a lot of different ideas to get here. I came into this semester with the really general thought of working with qualitative information and thinking about the relationship between that type of content and data viz. How we’d go about turning it into data and then from there how it becomes a visualization. What’s funny, though, is that even though I have this previous connection to this material, I really went through a lot of potential subjects from art, libraries generally, museum galleries, education and so on. It took a lot of going through ideas I wasn’t as inspired by to get to where I am. It’s not that I’m not interested or fascinated by those things! Just not for this endeavor. Once I finally figured out what I wanted to work with it just seemed so obvious to me that it was kind of crazy I didn’t think of it before. Works such as these diaries and really just this kind of Victorian content are very close to home for me—before this program I did a master’s degree in Victorian literature and, both in that program and here, I’ve always been particularly interested in the DH lens in the way we work with this material. The Victorian period just never ceases to interest me. There’s something about that time that seems increasingly relevant to today in so many ways—to me anyway; and, likewise these ideas of archives, preservation, these artistic afterlives. I really believe that visualization can provide something new or different to this field that has tended to look at literature and historical humanities material in a very specific, traditional, and seemingly never-changing way. I think there’s room here for exploration, and so I’m very happy I landed where I did. which are used to make connections to other text frames. An empty in port or out port indicates the beginning or end of a story, respectively.
Question: What are the main differences in the ways humans and machines identify and recognize faces and what implications does this have on influencing a style of portraiture as an artist and designer?

Statement: The human brain is exceptional at recognizing recurring patterns, and faces are just another collection of patterns. Computers that use facial recognition technology try to mimic this human method and divide the face into visible landmarks. However, not all humans are great at recognizing faces as there is actually a spectrum. Emerging research reveals two opposite ends of the facial recognition spectrum, with prosopagnosia (face blindness) on the low end and super-recognizers at the high end. Understanding different spectrum of interpreting and recognizing faces may possibly influence and transform my conventional approach of creating portraiture as an artist and designer.
What is your current work in progress, can you talk about the concept and inspiration?

Have you ever had a truly memorable experience in a museum? I’ve had a number of them, but as I look back, one that always stuck out to me was when I saw my first Chuck Close painting in person. I was actually quite surprised with the way I reacted to his art, and I was truly amazed.

His large-scale fingerprint paintings and other methods of pixel-like painting reminds me of how computers render digital images. Every picture has a particular pixel that makes up an entire image. What made him able to see like this was due to him being faceblind, but also being paralyzed. It’s interesting to see such a dramatic change in the style of someone’s art by seeing things differently and how closely his approach mimics how a machine would create an image. That inspired me to explore the concept of the similar yet contrasting way of how humans and machines identify and recognize faces. I now have a strong urge to experiment and explore how a new understanding of seeing portraiture through a different lens would influence and impact my approach to portraiture as an artist and designer.

You are a super recognizer - can you tell us about that?

Well first off, I’d like to say that I didn’t know super recognizers were a thing until very recently. The research is still fairly new but it’s definitely emerging. I’ve always felt like I’ve looked at a persons face a lot differently than normal because I would often catch myself observing the face to the point of feeling like I’m scanning every finite detail that sticks out to me. Actually, that’s literally what I’m doing. Also, I’d like to pat myself on the back for successfully doing this without being labeled as a creep, or so I hope.

Anyway, super recognizers are exceptionally good at recognizing faces—even those of strangers or people they’ve met in passing. They score higher than average on tests in which we are asked to memorize previously
unfamiliar faces, suggesting that we learn faces more quickly than average.

I took a couple of tests that determine whether you’re a super recognizer or not. One really popular one, was the Cambridge face memory test which has been reviewed by researchers from Harvard University and Dartmouth College. I scored a 70/72, which scored higher than 9 out of every 10 people who took the test. Here’s a screenshot of my results from the test below.

How does prosopagnosia (face blindness) play into this?

As far as I know there’s not anything necessarily wrong about the way prosopagnosics see or perceive faces. They don’t see faces as blurs or blanks and can detect a face just like anyone else, the only difference is that they cannot recognize who that face belongs to. They don’t remember them. In reference to how Chuck Close approaches his artwork as a person with prosopagnosia (face blindness) there’s a strong connection to how a person with prosopagnosia like Chuck Close interprets an image like a face to how a machine analyzes and interprets a face. I find prosopagnosia and super recognizers as an interesting contrast as they are both on opposite ends of the spectrum when it comes to how humans recognize faces. I used Chuck Close as an example because of how his diagnosis influenced how he creates such jaw-dropping artwork. I feel like it could possibly influence mine too. The concept is worth experimenting with at least.

Why do you choose to work with this particular genre?

I wanted to make the artwork because I’m very interested in portraiture, typically portraiture that captures and provokes emotions or stories that people can connect with, whether it’s from a place of admiration for the artwork or a relation to it. Also I’ve been drawing since I was little and I’ve always loved capturing the essence of someone in a portrait. Portraiture is a very broad term and can be reduced to certain mediums, but I’m interested in portraiture in all different types of mediums as long as it captures and provokes emotions from people. I found a lot of connections in portraiture to facial recognition. I feel like the pairing of portraiture and facial recognition bridges a unique gap of how I can display my love of art and technology. Especially a medium of technology that hasn’t been experimented with much within an art context.

Do you think being a super recognizer will impact your field of study?

I’d like to think so. I come from a very visual background that directly relates to traditional art and design. So let’s look at this from the lens of a designer, it could be easy for us to recognize certain typefaces, for instance, especially since we typography is an important aspect of our craft. However, as a super recognizer, I think it’s safe to say that there’s a high probability of me being capable of discerning the difference between say Garamond and Goudy more quickly than other designers. Or even having the ability to quickly discern icons and interface elements. Overall, in the grand scheme of things, these abilities don’t really allow for much of an advantage as a designer compared to other qualities. It just boils down to a different way of seeing.

If you use this tech process to inform art, do you think this changes the identity of your portraits? People want machines to be more like humans and you are going the other direction, you.. in a way want to think more like a machine. How does this impact the intimate knowledge you have of their face?
Essentially, machines interpret faces as sort of a collection of visual landmarks and includes details such as the depth of the eye sockets, the distance between the eye, the width of the nose, etc. to make up a unique code of a person's own faceprint. I think this changes the identity of my portraits only to an extent, as I feel like understanding how a computer recognizes faces only helps me to understand faces a lot more. I can become even more immersed and connected to creating a portrait with the newfound knowledge and understanding I have of a face.

**What do you want to know? What do you want to uncover?**

I want to uncover other ways I can see portraiture through a different lens and apply that new way of seeing when I experiment with portraiture influenced by facial recognition. I want to transform portraiture into something new, something meaningful, and something symbolic.
Image Credit: Inside the Virtual Safe Space by Vhalerie Lee
Question: How can alternate realities allow people who have experienced cyberbullying in social media to regain control?

Statement: A virtual safe space can help people regain their control brought by cyberbullying in social media to adolescents.
Cyberbullying is such a controversial topic now. Why did you pick this topic?

I had my own personal experiences with cyberbullying back when I was fourteen when I got into web design. I really enjoyed creating animated GIFs using pixel art. There was one technique that I found incredibly interesting, so I copied the idea. At a young age, I didn’t think creating animated GIFs in an unknown blog was going to be a problem, much less with using the technique as a way to make my blog attractive. Out of nowhere, suddenly I got this group of mean girls trying to bring my website down by flooding my blog with harsh comments saying I stole their ideas. These mean girls were also bloggers who used the same technique in creating GIFs as I did and claimed that they were the only ones who can use that technique. But thinking about it now, the whole argument was kind of pointless. What did kids know about copyright? Or better yet, digital copyright?

How did you feel about being cyber bullied?

I just wished they would disappear. I couldn’t sleep. I feared that all my hard work was going to waste. Fourteen years ago, cyberbullying wasn’t even a term. I had no one to talk to. My parents, who were baby boomers, had very traditional ways of helping me. “Stop using the internet,” they would say. But at a very young age, I already knew that there was no way I could escape.

How did you cope with cyber bullying in your own ways?

I simply stopped engaging with these people. To me, they existed online. Around four years ago, I got into blogging again because I was really drawn into writing and wanted to do something productive with my time, something that I can add to my portfolio later on. Food is something I am passionate about because it brings people closer no matter what the differences are, so I wanted to capture that through blogging about restaurants in the Philippines and around Asia.

How was your blogging journey the second time around?

It was a long winding road but unlike the first one, this one did not go unnoticed by foodies in the Philippines. I was digesting more ideas than I could write and at the same time, I was gaining a lot of traction on Instagram. My big break came when I wrote a review for a list of restaurants around the city where you can eat and it got around 30,000 shares across social media channels. I would say this is where I developed digital marketing skills and became a search engine optimization expert in no time, placing my blog on top of Google search results because that was my ultimate goal. I eventually surpassed the growth of veteran blogs in the Philippines (those in the scene for more than 5 years) in less than a year, simply because I was the first to take my experience mobile. But along with that came nasty comments coming from competitors (a simple IP lookup told me that!), wannabe food critics and just about any character on the internet. But having more people who found my blog useful in their food trips and travels outweighed the consequences. Having respect for these people and knowing they are entitled to their own opinions helped me deal with them.

When you got into food blogging, did you fear that you will experience getting bullied online again?

When I started blogging again, I told myself I wanted to separate my identity as a blogger and as myself. Living under an alias online is my safe haven. Only people I
personally know in real life knew that I was Candid Cuisine. I knew that hiding online was impossible. Restaurants in the Philippines were all wondering who I was and it was not until one restaurant owner who I felt I was going to get a lot of exposure as a blogger from that I decided to come out as myself. I got a lot of traction from that, coupled with writing viral articles that people disagreed with. Most of the time, writing about food is talking about your food preferences, your tastes. For these people, talking about my opinions was already being a bad blogger. But I got a lot of support from my coworkers and friends who told me that I finally “made it” because people started hating me and criticizing my credibility. And I came to terms with that.

What were some of the hurtful comments they wrote on your blog?

“This is a prime example of the continuous growth of bad blogging. Just because you are the writer doesn’t mean your opinion is the only one that matters. I think for your sake, you better improve your palate and class to learn more about food before you think of writing.”

“When someone says something bad against a place that is universally acclaimed, then it’s the writer who obviously has to learn.”

How did you get comfortable talking about your experiences in cyber bullying?

Mostly, it’s encapsulating the experience in a different space of my mind, knowing that, it’s all in the past and I am in control of the outcomes that will play out. I think I got lucky figuring it out, because today, so many teenagers who experienced cyberbullying don’t want to talk about it. They would rather deal with their anxiety and depression bottled inside rather than talk to their school counselor, which I totally understand. Some are afraid their peers around them would tease them for going into the school principals office, thinking that they got into trouble.

What do you think is the best way of helping these teenagers?

Trying to fix the law is a long shot. Non-profit organizations can only help by lending an ear before the situation intensifies— but I think it’s important to know that these teenagers aren’t going to say anything to adults. A whopping 58% have not told their parents about an online bullying incident. In just 2 years, cyberbullying soared in schools by 351%. And I think that school principals also feel helpless because they believe their ability to intervene is limited. When a kid gets a whole Facebook group dedicated to ruining his reputation, how do you respond to that? Some schools don’t even consider it cyber bullying if it didn’t happen within school grounds during school days, which is ridiculous because it happens online! You also can’t stop these kids from using social media because that’s the whole design of social media - it’s designed to keep you addicted. One boy at a middle school said he lied to his parents, deactivated Facebook and got back online after 2 days. I think if there was a safe place, away from the prying eyes of the public, where you’re the only one who can be in it, where you can face your demons and bring control and convince yourself that you’re more powerful than these bullies, then I think that’s the safe haven.

What are your working on to help teenagers deal with their experiences in cyberbullying?

It was a really interesting process for me because I was initially looking at how we can design digital media platforms in a more responsible way. There was a special
needs teen who was tortured live on Facebook in Chicago and the video feed was left for more than 30 minutes before it was taken down. The action was reactive, not preemptive. This raised the question of Facebook being a responsible media company as opposed to a technology company. We are all caught up in designing great user experiences and interfaces that shape our everyday lives, but little attention is given to the unseen consequences of digital media platforms. Martin Heidegger, in his article, “The Question Concerning Technology”, encouraged us to look at technology through the lens of danger. By seeing it in a different light, we can anticipate the dangers that a piece of technology will bring us.

Then I started looking at it from different angles. You would say I flipped my ideas upside down just to get a more realistic solution to something as big as this. Building a safe community where everyone convened to combat cyberbullying was one of my ideas. One of my earlier versions of a prototype was to organize a hackathon with people of the same goals and come up with a more robust solution (this is still in the backburner!).

Then I looked at people who have endured cyberbullying and what they were doing from Anita Sarkeesian to Brianna Wu and the proponents of GamerGate and saw how things grew nasty from a simple tweet. It was interesting how these characters would suddenly form into spontaneous groups and collectively work towards the goal of bringing down a radical feminist. One interesting research study in Personality and Individual Differences journal found that individuals who have bullied someone online have complex personalities called the Dark Tetrad of Personality --- Sadists, Machiavellianists, Narcissists and Psychopaths. But how do you define a cyberbully? How do you draw the line between these personalities? Would someone that wanted to hurt this person qualify as a Sadist? The answer is very fluid and hard to quantify. Unlike Anita Sarkeesian, it is not my intention to design a solution that would side with a particular group. I aim for equality in any race or gender.

It’s hard to curb these personalities online knowing that the Internet is the most democratic country today. Such freedom knows no bounds as it gets harder to police activities online. To be realistic, I think that there will always be more ways to circumvent the system and come up with new ways of cyber-bullying no matter how stringent the reinforcements are.

But if we give enough tools to those who were cyberbullied (which I wish I had back then), then we empower that person to take control and build confidence. Think of the tool as a universal Like button, a power gesture that will amplify yourself in virtual space and translate that into physical reality.

Take us through your prototyping process in detail. How did you get to where you are with your current prototype?

It’s worthy to note that social media is an artificial dopamine. Dopamine is a neurotransmitter that aids the reward and pleasure centers of our brain. We post something online. We get tons of likes. And that makes us happy. That’s the very system that Facebook, Instagram, Twitter and Snapchat was designed to be. But that system also served as my inspiration for my prototype. My hypothesis is to give tools to people to create something beautiful, that will trigger the dopamine within their system.

At the same time, Cathy Malchiodi, one of the principal board members of National Institute for Trauma and Loss used Drawing as a tool for communicating with traumatized children back in 1998, which I think serves as a good baseline for this research. Users were told to use charcoal and pencil to sketch out their repressed feelings, emotions and thoughts. Such art intervention is a way to allow the child into recovery phase, and this phase
My discovery in art therapy intervention led me to meet one of the experts at NYU Steinhardt, Dr. Ikuko Acosta, who has an extensive clinical experience in art therapy for the past 20 years, as well as Marygrace Berberian, who directs the school-based Art Therapy program. Art therapy is a type of therapy intervention where it utilizes art as a way to bridge the communication gap between the therapist and the patient. Dr. Acosta shared that one study in Tuscany, Italy used a live multimedia art projection image to paint Vincent Van Gogh’s The Starry Night to interact with kids with autism. Having little to no motor skills, these autistic kids suddenly interacted with the painting through the moving brush strokes as if they were the artist, with no encouragement from the therapist whatsoever. NYU Langone Center also did a Virtual Reality simulation with people with multiple sclerosis. The results were astounding - these patients didn’t even realize they have MS. She was also able to do art therapy research with delinquent children who may have some family issues growing up, where these children painted an ideal representation of themselves, an object that symbolizes their effort to erase the past and be what they were not.

These examples show where the industry is taking us in terms of using multimedia as a therapeutic tool. Dr. Acosta and I discussed how Art Therapy can be a way to decrease the effects of cyberbullying to teenagers. One way is to recreate the environment and bring the patient into the scene gradually. Another is to let the patient experience happiness through creating art. But one of my favorites is for the patient to create an avatar of himself, a symbol that he can possess andempower himself as an alter ego. Marygrace also shared that she saw the avatar as a really powerful tool in aiding in recovery, as kids like to roleplay in the shoes of someone in control. This also helped narrow down my research further into regaining control of himself in the virtual space and carry it over into real life.

I imagine these solutions as Virtual Reality experiences that would take the user slowly into recovery, but not get them in too deep as there are dangers to addiction as well.

**What is the current prototype all about?**

My current prototype takes inspiration from Dr. Acosta’s suggestion on gradually bringing the user to a better situation in physical reality through the use of virtual space. At the same time, I am mixing this initial prototype with the fundamentals of a safe space according to my research. In theory, a safe space needs to have reparative or soothing elements, a protective perimeter and internal allies. I have shown this prototype to Marygrace Berberian for her inputs and she gave me a lot of ideas that synced with the fundamentals of a safe space. I could add soothing elements inside the bubble such as a glass of cold water, which we naturally use as a way to calm our nerves.

I am using Unreal Engine to recreate a realistic VR environment. Imagine yourself standing in a vast space. Light breeze, sunlight and fresh green grass keeps you in calm state. This is the reparative environment that embodies the experience. Further iterations of the prototype will include some sort of totem animal that you feel attached to (At the moment I might use a cat because it represents independence for me!), as your internal ally. Finally, picture the mysterious, protective halo from the TV series Under the Dome. That serves as the protective perimeter, which ties nicely to one of the first few prototypes I had on power gestures.
What are your thoughts on VR and how it will enhance the experience of this idea?

VR is all the buzz today, but I think it’s important to know that this is not a one-size-fits-all experience. Marshall McLuhan famously said the “Medium is the Message” and VR brings the message of presence. With presence, VR will bring that cyberbullied person into a world where he or she can be confident in or into a world where he can confront his demons in extremes (A technique that Dr. Acosta shared called Flood which she doesn’t recommend!). This participatory medium will allow the user to interact with the environment, in the same way that a VR Medical Lab at the University of Southern California is currently doing. Dr. Skip Rizzo who heads the lab teamed up with a clinician to allow military veterans to confront the effects of PTSD. To a military veteran, the simulation looked real and allowed him to redo some of his mistakes, the reason why he barely sleeps at night and double check doors if they are locked.

Who are your users and how do you plan on reaching out to them? What type of impact do you expect to have?

Using digital media as a form of art therapy is experimental and new. I am looking at testing this on teenagers aged 10-18 who experienced varying degrees of cyberbullying. I am looking at reaching out to public schools for teenagers who are willing to experience this medium. I see this research as a stepping stone for people who are interested in utilizing VR as a medium of recovery for people experiencing emotional stress.

How do you plan on taking this project further both in research and practice?

I would be interested in collaborating with similar research in the likes of Dr. Rizzo’s medical virtual reality application. Dr. Rizzo operates with a lot of parameters that he does on the fly, and mixing the two experiences together would create a sophisticated simulation for clinicians to use. For me, it’s a constant learning process in building and prototyping virtual reality experiences, and finding technical solutions that enable digital media experiences, which is really my forte.
Question: How can the development of wearable technology create new opportunities for intimacy?

Statement: Intimacy can often be hindered when a person is unable to express complex feelings such as pain or pleasure. With connected wearable technology, the body can become a new interface for communication, where biometric data and integration with our digital world can open up new ways of experiencing intimacy. Therefore there is a potential for technological enhancements as extensions of the self to perform various types of communication on our behalf.
M: I’ll start this off a little from the side; what is your relationship to fashion?

A: Hm (chuckles) What is my relationship to fashion? I’ve been experimenting with it for a very long time. At a very young age I was using it to figure out my identity. I was even using it to experiment with gender for a while. I hated being a girl for the longest time, so when I was 12 I said to myself I was going to be a boy (naively) and I just cut all my hair off and started dressing in boys clothing, or what I perceived to be male-gendered clothing for a few years. Later on, I started understanding the politics of gender a little better and then it became about femininity and independence. Then, at one point it became a battle between black vs color, goth vs punk, etc. I also developed a love of vintage clothing, and modifying clothes I owned in small ways.

I think because I’ve tested it out so much, my relationship to fashion now is more about testing the boundaries about what is considered everyday fashion. Not just as a vehicle for expression but trying to push it a little further, especially questioning its relationship with technology.

M: I hear that for you, fashion is a mode of communication, and you’ve done different kinds of speaking, even nonverbally, through it. Even now your project might be continuing that speaking; does your project have to do with communication through fashion?

A: Part of the communication aspect originated from a project I did in 2016 within Greg Trefry’s studio where we collaborated with the Time Square alliance to create a weekend of play in Times Square. One of the significant problems that I was trying to solve was how to cross the language barrier threshold. Times Square holds the palette of global people and we wanted to create something that wouldn’t require you to know English. The project went through many iterations with the final being a picnic scene that people could hang out on and talk to each other through a connected soundscape that they could influence at different stations shaped as mushrooms.

Verbal communication is also something people struggle with, it’s something I struggle with, in terms of true intimacy, or maybe vulnerability, like the communication of vulnerability. So much of it is cerebral, and I feel like sometimes there are a lot of things that are happening underneath that people aren’t aware of. There was a project I worked on also in 2016, with Chalayan Design as part of Intel’s work within wearable fashion where we had biometric sensors on a pair of glasses and created a small projector belt that would visualize the biodata in a few cinematic scenes.

With this project specifically, I am exploring the role of wearable technology and intimacy between couples. This is expressed through a set of jackets that “talk to each other”. Fashion is an extension of our bodies, and as technology becomes increasingly so, it becomes a matter of time that our phones and our watches start integrating more with the body. It is also the medium here, and it is all about trying to give people a mode of expression through their body.

DK: Can you give us a scenario of the jacket(s)? Set us up with a scene.

Imagine a couple walking down the street heading to a social event, their jackets are quiet for the most part. A is talking casually making jokes about their co-workers, whereas B is responding a little but silent for the most part. After a little while, B’s jacket starts pulsing a soft yellow and it starts turning magenta. A notices this, and knows that when A’s jacket turns magenta it is because A’s biometric data is showing that they have a higher than
average heart rate. B stops their story and begins asking a few questions to A about their day and if anything important was coming up. A snaps out of their distracted state and tells B that they have a presentation coming up tomorrow. Although they are prepared for it, they’re still nervous because a competitor for a promotion is also presenting. B realizes that it probably wasn’t appropriate to be making jokes about workmates at that point and quizzes A about their presentation in hopes of getting A feeling more confident about it. A starts relaxing and smiling.

When they get to the event, they switch modes on their jackets to social mode. A goes to the bar to grab a drink, B starts talking with their friends. B’s jacket has lights that follow both the arms of their jacket and every 15 seconds, it emits a train of light. A returns from the bar with drinks and now B’s jacket starts emitting a sparkly pulse in between the light trails. This is because A’s jacket is emitting that pattern independently and whenever they are in a certain range of each other, they send each other messages and also pick up messages from each other. The lights dance back and forth between A and B in a mesmerizing dance. As the event gets a little louder and more crowded, the jackets also begin to take on a more excited mode, dancing just a little quicker than before. At one point, A walks under a spotlight, picking this up, both A and B’s jackets go into a little bit of a rainbow frenzy. A and B love wearing their jackets in crowded spaces because they find each other easy to spot across a crowded room, and are able to feel close without having to always be by each other’s side. Also they have a secret color code, so that if either one gets distressed and feel threatened, their increased heart rates will be communicated through a vibrational actuator within the jackets.

DK: You sent around a survey about intimacy. Can you tell us what you were hoping to find with the survey and what you actually discovered. How did the survey change the project. What were some of the questions on the survey? Tell us more about the survey and how it impacted the project.

From survey results, I found a wearable electronic solution might be helpful in my project goal of creating new opportunities for intimacy.

I asked a series of questions to about 30 people in intimate relationships based around three categories - contextual questions about their relationship, relationship communication and lastly, vulnerability and physical intimacy. I was hoping to gain some insights into how different couples communicate and where might a particular need for the project lie. Some of the questions I asked were such as:

What digital mediums do you use to communicate with your partner?

What % would you say your communication is digital vs face to face?

What do you consider as physical Intimacy?

How do you communicate your sexual intimacy needs?

75% were comfortable expressing intimacy in public, which implied that they might be interested in a wearable that makes their presence and connection more visible to the world, such as in the form of a garment.

It was interesting to learn that 90% of the couples felt that they communicated enough, and they felt like they were in constant communication with each other. Only 35% of the couples were of the same ethnic background. In terms of how they defined intimacy, “Making Time for each other” and “Touching and giving each other physical affection” rated most highly. In terms of digital
communication, 40% of the respondents said that at least 50% of communication was digital. There was an extremely broad range of digital media that couples used to communicate. Basic texting ranked highest, with other disseminated between Whatsapp, Google Hangouts, Facebook Messenger. A couple of unexpected answers were Dropbox and Calendar. This question is particularly interesting to me as I am considering integrating digital communication APIs into the project.

To the question that asked: Can you think about moments of distress in the relationship, what caused this? Just under half the people stated a lack of communication as a factor, other talked about mental issues and histories of abuse, which also implied an effect on effective communication there.

Another question was around how couples expressed appreciation for each other. Around 65% included some sort of verbal communication. Other questions around how people expressed sexual intimacy needs and desires, as well as how they expressed pain and hurt were also a majority verbal. Yet when asked a follow up question on whether they used indirect communication in these scenarios, 75% gave an answer. It made me think that some technology that could analyze verbal communication might be interesting to add to the project but that non-verbal communication was still a very important aspect to explore.

**Q:** Perception of clothing is part of every culture (historically and socially) Do you have any references to clothing as communication as seen through history?

**A:** I created a timeline that showed the various movements of people wearing clothing in groups, sometimes to represent solidarity such as the hijabs and pussyhats more recently, to the variety of bands and ribbons in the 90s. Clothing for women have always been a way to stand up against patriarchy, where hemlines, bustlines, corsets, shoulder pads were all used as part of this. Whereas uniforms and arm bands during the wars were ways that people used to represent allegiance and also segregation from those considered the enemy to be eradicated. Therefore clothing has always been a weapon, if you must, to help people communicate messages and beliefs.
without necessarily having to verbally speak about it. There is something very powerful in that, which I hope to explore in the project.

Q: Visually the lights are communicating, however when someone is wearing the garment, the lights are hard to see as a whole, can you talk about the relationship of the garment to the body of the person wearing it in more detail.

A: I think in many scenarios, the jackets serve more importance as a tools for communication with the other person as well as other people in the space. Haptics will be integrated to deal with situations where more urgent communication is necessary. Each jacket has a different pattern on them, based off the structure of the jacket and also the perceived movement for the wearer. For someone with more fluid movements, it would look better if lights were running across their body and for someone with sharper movements, I felt that pointed patterns on the shoulders would look good.

Q: What behaviors will the technology take on to help express or communicate the intimacy? How do you plan on exploring the behaviors?

Often times, breakdown in communication happens because you don’t realize that you are not communicating. In the survey I had asked a question about how the couple expresses themselves indirectly in times of pain or feeling hurt. 30% said that they use the silent treatment, 20% said they threw a tantrum about something else and another 20% said they would criticize their partner and the rest had a variety of answers like keeping to themselves or talking to friends. In these scenarios, it could be helpful for a mediator to be able to help ask for attention, and this is where technology can help.

The basic jacket currently is from a vintage store, Beacon’s Closet, which I’ve lined with LED lights that are visible from the surface of the jacket, a micro-controller and a radio unit. Further iterations have biometric sensors integrated, such as heart rate and galvanic skin response sensors and the next stage is to incorporate haptics, sound and light analyzers. This would allow for the lighting levels and colors would be tuned to suit the individuals and well as environmental conditions. I have considered adding technology that can tap into other forms of communication such as texting, or social media messaging. These would require wifi or bluetooth capabilities which are also great things to explore. The technology is meant to augment the way that someone communicates, and also help them tune in to their partner and the environment.

Q: If this is just made for one couple, what characteristics would you be looking for in that couple?

A: I think the most important characteristic would be that they are open people that are interested in exploring their relationship with someone else. They should have a healthy understanding of their communication styles and have an idea of where communication is either lacking or could be augmented. They would also not be shy about showing their affection and status in public: a public display of connection, so to speak. They should also be sociable, and be interesting in wearing the project to a variety of social situations.
Question: How to use these genres as an objective lens to create empathy and tell an entertaining story?

Statement: Using science fiction/dystopian genres for social commentaries.
What is your current work in progress, talk about the concept, motivation?

I began with the exercise of card sorting my interests. From about ten topics, I narrowed it down to three: science fiction, mass communication, and environment creation. After some deliberation, I realized that through storytelling I could potentially integrate all three of these areas into a project.

What is your process for making the work. What tests, experiments, prototypes are you exploring with?

I began with creating film prototypes of made-up environments. I would film regular scenes from around town and then composite other elements into them to create a cityscape that was both similar and dissimilar to my regular surroundings. I wanted to create fictitious environments where people could forget about their normal reality and be open to something new. I then moved on to making digital matte paintings and also took some 2D images and animated them into moving scenes to experiment with different mediums.

Why are you making this artwork?
I would like to take science fiction and dystopian genres and use them to tell an engaging story that is also an examination of society. Science fiction/dystopian literature and film allow people to objectively look at issues in society, and then look at our current society and perhaps see it from another angle or perspective that comes when you are a bit removed from it.

Why did you choose to work in a certain medium?
I would like to use film as a medium because it’s entertaining, and it allows the storyteller to be quite creative and try various visual approaches that might not be available elsewhere. It also allows the audience to easily digest an idea or a story without having to exert much effort.

How does your work fit into your field of study?
I’m looking to tell a story using digital media tools. I haven’t decided what medium, 3D, 2D, or something else, but in any case, I want to find a way to tell an entertaining story in a digital format.

How do you imagine the final version of the piece?
I’d like to piece together a cohesive story that is in the format of a short film. If not a film, another digital medium that allows someone to follow along with a storyline and characters.

Can you tell us a little about your story? Or the story that you have in mind?
The story is the classic hero’s journey. The protagonist starts out in the ordinary world, discontent with their surroundings. Then, something happens that shakes
them out of that environment, either from external pressure or something from within, which heralds change. Later, they find a teacher or mentor to train them and help them along the path. Our hero now goes through battles and challenges, typically externally and internally, all in preparation for the great battle. At the end, the hero faces their greatest adversary thus far in the story, while at the same time overcoming some kind of moral dilemma. Frequently they must overcome a physical challenge as well as overcome something from within. The story I’ve been developing follows all of these tropes. However, the story might differ from the classic hero’s journey a bit at the end. Usually, they walk off into the sunset. In this tale, the hero just keeps going, and that’s where it ends.

This is a rough summary of any typical adventure story, or almost any story, really. The story is pretty predictable in that way. Obviously, the execution of the project makes it differ from everything else.

The dystopian angle comes in handy when making a social commentary. It’s also a useful aesthetic device. If you want to convey a story that’s dark, and where the protagonist is in an oppressive situation, framing it through a dystopian lens makes sense visually. I think.

**What did you learn from your prototypes?**
When developing these prototypes during the semester, I used mostly Adobe After Effects. I experimented with 3D camera tracking, compositing, rotoscoping, green screening, and a variety of other effects when making the prototypes. I also may incorporate 3D modeling software like Maya to see how the characters and scenes created there compare to animating 2D assets in 3D space.

**What is your relationship to this field?**
I’ve read a lot of science fiction novels.

**How many sci fi novels have you read?**
I can’t remember…
Part 2

Day 1 | Day 2 | Day 3 | Day 4

Pill Dispenser

Calendar
- set up & remind user for doctor check-ups.

Reminder to
- take pills (Western)
- take supplement (Eastern)

Monitors
- Sensors to monitor
  - Heart rate
  - Blood pressure
  - Blood sugar level
Question: How can technology be used to improve the health of older adults and aid their everyday needs in a comfortable way?

Statement:
I want to create a solution that would suit the needs of the Chinese older adult audience to lower the burden of the aging population in China.
What is the Medical Buddy System about?
I want to create a digital device that can help older adults with their everyday problems. Recently, I’ve decided to focus my project on the aging population with the Chinese, in China, and I also am leaning toward adding medical features to track their health data because a lot of them have urgent health issues.

Why are you interested in the aging population?
I come from a background of user experience design. I was previously working in the product team in a media company, so we were always doing really cool things for young people. I am originally from Hong Kong where there is an aging population problem. It is also an urgent problem for many cities in Asia. Growing up in Hong Kong, we learned that the aging population problem is growing really fast, and is becoming an urgent matter. The number of Chinese older than 65 is expected to rise from roughly 100 million in 2005 to more than 329 million in 2050—more than the combined total populations of Germany, Japan, France, and Britain. Older adults become dependent on the younger generation which causes economic pressure in different cities. I feel like, there are so many older adults and elderlies with many difficult problems and tasks that they encounter daily.

In a study by Nielsen Norman Group, they carried out a usability testing with older adults. They measured how users over 65 interact with websites compare to a control group from 21-55 years old. Older adults are overall 43% slower using websites. Their success rates are at 55.3% in comparison with the control group at 74.5%. They also spend around 7:49 minutes on task whereas Control group spend 5.28 minutes. Older adults users also have 2.4 error in comparison with the control group 1.1 error. This shows how the web is not catered towards this group of users. I think that everyday tasks like this could be much simpler if these applications and products were more accessible for them. Health issues, mobility issues, and a general skepticism towards technology have created a disconnect between the elderly population and the current operations of a technically dependent and savvy society. It is also personal too, because I’m really close with my grandparents and I see how difficult it is for them to attempt to engage with new technologies. I think I got drawn into it because I feel like technology is really advancing and the older adults have a greater distance with technology. When I refer to new technology, what I mean is new digital technology such as mobile and web applications, web services, virtual and augmented reality and all the cool products that are rolled out by tech companies. The advancement just makes older adults more separated from the rest of us, which is why I wanted to explore this topic.

What influences this work?
I came into the program wanting to explore universal design, and I took an Assistive Technology elective course where I heard a lecture last semester by NYU Professor Alan Goldstein. He talked about universal design and how eventually everyone would have some form of disability as they age. It is a problem that no one can avoid. That really stood out to me on how the disability, or how everyone is aging, it’s going to be a problem for everyone. And, that really hit a note on why I was so drawn to this topic. I was completely shocked and touched by the information that Professor Goldstein presented that day.

Can you talk to me about your work in progress in detail?
I’m still in the research and exploration phase. I knew coming into the program that I wanted to do something
to do with assistive technology for the older adults. It started off with a lot of research and academic readings. Through this research, it drew me to the steep increase in older adult population that China will face in the near future. Their one child policy is a main contribution to this rising problem. The Chinese social lifestyle such as heavy drinking of alcohol and extravagant multiple courses meals as a sign of wealth and respect for your guests also contributes to health issues as they age. Through the research, I realized that, I want to address the social and health issues that will arise. I think it’s a very urgent topic that I am really interested in exploring. With this, I started doing different explorations of what direction and approach would be best to relate to older adults in China.

I did explorations for social, health and comfort.

Can you talk about some of the key findings from your research?

There are some of the key factors that contributes to the sudden increase in older adult population in China. Their one child policy is a main contribution to this rising problem. The proportion of aging population is growing faster than the rest of the world. Also, an early arrival of an aging population before modernization has fully taken place comes with social policy implications. It is certain that China will face a severely aged population before it has sufficient time and resources to establish an adequate social security and service system for older people. Furthermore, China’s rapid industrialization and urbanization, while using coal as the main energy source has serious impact on the environment and air pollution can cause chronic illness and decrease life expectancy. Urbanization also contributed to change in lifestyle where China is undergoing a nutrition transition to Western-style diets dominated by processed food with high fat content. Physical activity level have decreased. This combination lead to rapid increases in overweight and obesity. This all contributes to a set of issues that add pressure to the society. The overall productivity of the society also decrease because of the decrease the percentage decrease in workforce and family also have to care for older adults for longer period of time.

What is the process for making your project and what specific prototypes are you exploring or would like to explore?

With my initial research, I was exploring communication, accessibility and general skepticism towards new technology. I started off by learning more about the users through questionnaires. From that, I wanted to try to move away from my personal background in user experience to get a more holistic approach to the aging population problem. I wanted the whole process to be more experimental where I could expand beyond my comfort zone. One of the prototype I had was to create an extra large keyboard to address accessibility for their vision problem and mobility problems. I then explored other concepts and angles I could address the issues and the older adult population, such as the loneliness and urgent health issues they will have. After that, I went on to do more research, and from that I realized that to decrease the distance between technology and older adults maybe a medium that is not so digital would be more approachable. I also realized that comfort is one of the main things I want to use to connect the distanced older adults with new technologies. This came from an inspiration of a video I saw of Seal Paro, a therapeutic robot used to comfort tsunami victims in the Japanese elderly community. I saw how much joy and comfort this design brought to the users. Another thing that I want to bring into the project is attracting the older adults with their younger family members by connecting them socially--where I want them to have an easy way to connect to their family members remotely. I think using grandchildren’s connection would be an attractive way to get the older adults interested and engaged in the project.
How does your work fit into your field of study?

In my undergraduate studies, I majored in Communication Design. I have a background in visual, user experience and web design, so I was always interested in solving problems. I think that good universal design should be accessible for everyone and that will not just impact society, but for me too, so I think that is the main reason why I went into it. From a previous job, I think that fun, cool kind of user experience and web design everyone would be interested in doing, but I feel like not everyone want to solve this kind of less attractive problems. That’s why I want to do it.

How do you imagine the final version of this to look?

Right now, I imagine it to be a character or a device that would be able to communicate with the older adults, as well as provide data to them, or a tool that can connect them with the society or with a doctor or a clinic, so there will be connection and a sense of communication and aid.

What are your next steps?

I want to continue to apply universal design to my projects. With my work, I want to be able to bridge the gap between people and technology and help improve the user’s everyday lives.
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Good Luck next semester!

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