

Topics:

My interview topic is related to sustainable design, how designers find themselves responsible or capable for delivering a positive impact to our environment.

Interview scripts:

Vincy: Hello, Renee can you hear me ?

Renee: Yes

Vincy: Great. Before we start, do you mind if I record our conversation today?

Renee: No

Vincy: Do you have any questions to ask before we start the conversation?

Renee: Not really.

Vincy: Ok, hello Renee, thank you so much for taking your time to have this conversation with me. I'm Vincy, and I'm doing research for Sustainable Design, and I will be conducting the interview today. Today's interview is about sustainable design, for example, how do you think about sustainable design for your work or how you approach sustainable design in your daily life or work.

Renee: Sounds good.

Vincy: Okay, let's get started, so firstly do you mind introducing yourself a bit?

Renee: Yes, I can do that, My name is Renee Gu and I'm currently a UXR/user experience researcher at Google, and the product area I'm working on is Google nest, Google hardware. And we make Home Products and my role is researcher which I closely worked with designers, PMs'and other roles in the team to make a better user experience products for our users. And I've been working in this team for more than 3 years so I'm kind of familiar with the hardware area with the Hardware products. Yeh, anything else you would like to know more about me?

Vincy: Can you please talk to me more about your work? How did you work with designers and PMs or other stakeholders? What is your daily work like at Google?

Renne: Emm..., my designers and product managers are my primary stakeholders for the most of time. Sometimes I will also work across functions with other research teams, like we make hardwares, we have a specific human factor research team and we also have a marketing research team, customer insights team, so yeah, basically I worked with all those different roles or of our products. The way we work on products is each role they own the product end-to-end which means you can join the progress at the beginning, so you can work how to define the

experience, the features, how to define the CUJ's (consumer user journeys) for our customer, and that pretty much about the early stage. My work will be doing research to understand the users' needs, and to define those features and experiences with our designers, then we will move forward into another stage of developing the products which I will do more iterated research to forecast and evaluate the actual user experience we have designed. The users can be internal or external users, just to make sure the experience can be improved. We also have the product launch time that is hard to change, so we have to work according to it, so that is why we are maybe less flexible than the software product team, so we will need to make sure we can meet the deadline, catch the schedule and launch the product on time. Another stage after the iterative stage is called Launch readiness, which is everything we do is for preparing for the launch, After the launch we will normally have to do post-launch research to make sure our product perform well in the market and gain user's feedback from external users and also track the experience compared to our competitors and etc. So that will be like an end-to-end process.

Vincy: Thank you for the detailed explanation of the whole process, I'm just wondering in the whole process who will be the person to define the scope of the project and decide the direction to go for next?

Renee: I think most people would think that role should be a PM, but actually I would say PM contributes to maybe a big portion of it but not all of it, because another part would be the user experience that designers can speak a lot of from their perspective. As a UXR, we can speak for our users and help the team to understand what they really need, so I would say on PM side, they would think more about the strategy, business goals and also we will also get engineer involves to make sure technically it will works, and since we are making products, we will also need to think about the cost. From the UX side, we will do our best to think about what we can make a better experience for our users, we might have many challenges, the UX designers will be the people who find the best solution for that. So I would say every role contributes to it, I wouldn't say PM scope everything.

Vincy: Okay, thank you! So my next question is can you briefly talk about Google's strategy or your team's strategy in terms of making the designs sustainable?

Renee: I think Google is a really big company, and there are so many perspectives of sustainable approaches in either our work or the product we have designed. I can probably give you one or two examples, one thing they have used is called "the cleaning energy", Google is trying to provide everything we used, to make sure the energy we have used is clean, clean means that is provided by natural resources. Like sunlight, or some other ways, I don't remember the terms clearly about what they are using, but I remember there is an announcement about Google achieving the goal that we have used in the company is all clean. Google has so many offices, so that is a huge consumption of energy, and I think that one of the ways they are trying to make our workplace more eco-friendly. I can also give one or two examples in other product design areas. One of the products we are making is the thermostat, we can call it an eco-friendly product, because it is just different from the traditional product that people have at their home. Traditionally, there is no such system that can track the home's

temperature and smartly know when to turn it on or off. But the thermostat is the smart way to track the home temperature 24hrs, 7 days a week to make sure to save energy for you. It won't rely on you to remember to turn off, it will just track it in a smart way and save energy for you. So I will say thermostat, google nest is the product that is consistent with Google values in terms of sustainability. Let me know if you want me to go further about something we consider in our daily work or even in our product strategy in terms of sustainability.

Vincy: Yes, definitely. Could you please talk more details about how the sustainable approaches in your daily work?

Renee: Ok, One thing is that since we design Hardware products, we know that in the software products world everything can be updated so easily, so if you buy a hardware device, you won't just upgrade after a few months, you probably expect to use it for years, but also looking at where this hardware product world trend is going. For example, our mobile phone, you can use the upgrade program to upgrade your phone after a year or even shorter, I know Apple does a lot, in terms of how to recycle the phones to make it more sustainable. Since we also make hardware, we also make sure the hardware itself can last longer in people's homes. That means we are not designing something that is not consistent, for example we are designing different generations of the products, but we want to make sure the newer version won't overwrite the old version. Or something you feel like oh I should buy a new one instead of continuing using the old one or what about I dump the old one and get a new one. We want to make sure when we have a new product, that leaves with the consistency of the devices in users' homes. We want to make sure the devices can be with them and across their life stages. Which means we need to consider all types of users and all different life stages, when they are single, when they are renting the home, they live with partners, get married, and then they have kids. So different life stages may have different scenarios of using the device differently. So that is why we want to think fully about how users may use our products and make sure that would be.. you know.. that would be useful for either different people or work for one person in different life stages. Another more specific example is the packaging. Since we make hardware, we definitely have the box, the packages. In recent years, the company started thinking about how to make this more sustainable. I was in a packaging workshop and I think there are several perspectives we were thinking about. One is the material itself we are using for the box, we don't want to use anything plastic, it's hard to achieve because plastic is very accessible and it is a low-cost and in general it is very easy to use in packaging, but I think that is the goal the team want to achieve to make the package without using plastic. Another way we were thinking about it is to define what a sustainable box would be. Would that be like he's very easy to be recycled or it could be something that people continue to use for some other purposes that it doesn't have to dump it they can use it as like a storage box for other usages. In another way is, you know the actual box structure to make sure the box itself can security products and at the same time, save space. It doesn't need to engage a lot of space and there are many benefits, it saves materials and when we ship the devices it also saves the shipping spaces. That means we can ship more devices in the same shipment. I think for sustainability wise, it will also reduce footprint, carbon footprint, the less space you take, the more products you can ship, and just in general, the box

structure can make a lot of difference for the environment. Yeah, I think this is another example of packaging when we think about sustainability.

Vincy: In terms of these approaches you just mentioned, what do you think are the major challenges when practicing such sustainable design as a designer or as a researcher at work? I have heard about the “planned obsolescence” system, which also means enable to make money consistency, some companies have designed the system for their customers to purchase or update new devices in certain years. Can you also talk about how you or how your company balances such economic factors with sustainable design?

Renee: Yeah, I feel like it's just a conflict. It reminds me of a clothing brands called Patagonia, that is a very eco-friendly brand, they know that sell more clothes to customers can earn more money, but they just doesn't want to do so, they have a very good customer service and repair program to make sure their user can wear that one cloth as long as possible. But in a hardware world, I think that true, we do want to sell more products, but at the same time, we just want to make sure once user buy that product, the product itself they user can use of it, it won't be something they feel like it should be throw away or need to upgrade for another yr 1 or 2. Another way to think about it more systematically, it's maybe not to buy one to replace the old one, uer may need more than one device, because we know that there are many different function spaces in users' homes. We wanted to provide an ecosystem to make sure that they are all connected to make a connected home. That's something you just mentioned of how to make that balance. There is another thing I want to talk about, but I forget what it is, I will come back when it's come up, do I answer your questions?

Vincy: Yeah, I guess so, it is a tough question because of how to balance the economic factors in terms of the challenges we are facing...

Renne: Oh, oh, I got it, I think one of the challenges is that it hasn't to be some values that everyone on the team agrees on, sustainability is not just about a design idea or something just randomly coming up for 1 or 2 products. It's more about the value across Google, so what I feel it should be something from “top-down” structure, rather than what Google famous of “bottom-up” structure which is each team, each person in the company can bring up the idea and can make it work and find a group of people, get feedback from leadership and maybe it can be a bigger product. But I feel like sustainability is something that is different, it has to be from a high level to deliver the message that sustainability is something or one of the values we want to pursue. I think the hardest part is how each group understands and agrees with the value of it, and when they make decisions they know which directions they should go. It seems eligible that there are some conflicts when making decisions. Like sometimes sustainable design may cause more than normal, but that has to be, because that is the value, the value we all agreed with. So that's what I feel.

Vincy: How do you think you can do better in terms of influencing sustainable design. For example, what kind of support do you think you will need to promote sustainable design. I know you just talked about the importance of the company's leaders in supporting or delivering the

message of the value of sustainable design, anything else you can think of what you can do to influence sustainable design in your daily work or life?

Renne: I feel like a lot of sustainable hobbies are not only about work, if you are a person who cares about sustainability, you probably would care about everything no matter in your work or in your work. That's why there are some activities happening in our product area at work, such as we have this Nest earth month or week, there are many different sustainable approaches workshops, talks or share outs. For example, I went to a workshop online 2 days ago. It teaches you about how to compost foods, trash at home. This delivered a message or a knowledge of how important it is if everyone can compost things by themselves. There are more activities coming up, something related to the work is what Nest is doing, in terms of sustainability efforts. Some activities I really like are because I guess that's what I believed with. It doesn't have to start with work or with the actual projects, it can just start with some casual topics that relate to everyone, and people will just start thinking about it and bring up the sustainability sense to everyone.

Vincy: Yes, totally agree. What kind of sustainable practice do you take in your everyday life besides your design? For example, recycling plastic bottles is a sustainable practice we take for environmental sustainability.

Renee: I started paying attention to it, maybe 2- 3 years ago and I started with reducing plastic usage. We don't have any plastic bottles, we just don't buy bottled water at all. We are trying to find some solutions, like using reusable glass bottles instead of plastic one. So you can't find any plastic bottles in my home. And then I learned a lot about fiber and clothing of how fast fashion ruins the environment, even the sustainable system. So about two years ago I donated $\frac{2}{3}$ of my wardrobe, and tried to buy less, and also tried to buy all my clothes made by nature fiber, organic cotton, wool, or animal fiber, rather than polyester and synthetic fiber, because that's create a lot of microfiber, which is a huge pollution to the whole system, like the river, earth, soil. Yes, I paid a lot of attention to that. And one of the challenges I have for this year is to buy less than 10 clothes this year and now it is in April and I just haven't bought any clothes at all so far. This is likely to achieve the goal. And... What else, yeah, the microfiber pollution is really horrible, the more I learn the more I realize I should do something to change it in my daily life. There are some extra solutions in that market, so customers can buy the specific type of washing bag, and you can put synthetic fiber cloth into it to wash. I like outdoor activities, and do yoga at home. It is just sometimes hard to avoid the synthetic fiber cloth, you know, most of the activities clothes are made of synthetic fiber or wools, so I do have some synthetic fiber cloth. What I do is to make sure when I wash them, it won't create that much microfiber. Norally, it will just be rushing to the waste water system, and eventually after several iterations, it will go to the river or ocean. The washing bag I'm using is made of specific materials, and it will filter and lock these microfibers and make sure it won't be washed away. So you just cleaned the filter and threw it in a proper way and made sure it did not go to the water system. This is another way to pay attention to the microfiber. The reason I cared about microfiber is like something plastic, it is not something that can be easily composted by nature. It will just stay in the ocean, soil for a hundred years and eventually it would be for an example it will be eaten by fishes and all those

sea lives in the ocean and a lot of them eventually will be the seafood on our table and we will be the person who eats them. This is like a cycle, a lot of fiber will be in our body, in our blood. That's why it is important. Another practice I tried to use less plastic is I just transferred the shampoo bottle to a shampoo bar, a solid shampoo bar, so there is no need to use a plastic bottle to hold it. It also saved a lot of space. And if you look at the ingredient of the liquid shampoo, 90% of the liquid portion is water, so that's why I switched to use the shampoo bar. There are also some small things when we use tapes, I have just changed the tapes from plastic tapes to paper tapes.

Vincy: It's interesting to hear how you approach sustainable practice in your daily life. So I am kind of curious about the research area. Are there any strategies, or methodology methods that support or promote sustainable design solutions?

Renee: For the actual research methods, I am not aware of any yet. I feel like sustainability is more about an area or a topic that we would do research on, rather than to have sustainable research methods. That's what I understood. But probably there are some very new, advanced research methods that integrate with sustainability. If there is something like that, I would definitely willing to learn about it.

Vincy: Yes, thank you Renee, is there anything you are interested in or something we haven't covered but you want to share with us?

Renee: I think I can briefly talk about my understanding of sustainability, because it is not something new to me, because I was studying product design in college. I remember one of the courses I have learned is about the system of sustainability. Once I moved to California, to the Bay Area, I feel like this is the leading area, a lot of people care about sustainability and my knowledge just kind of added on. And I have come to my own understanding of it, what I feel is a lot of people would say sustainability is eco-friendly, and when you make a product, the first thing people may think about it will be the material itself, like what kind of the material should be recycled, or easy to compost. It is true, but not always true. For example, one design when I was in the college we talked a lot about in college. The Herman Miller chair, their office chairs are not only economically famous, but also the sustainable design ideas. What I believe the sustainable product should last long, that's why I think Herman Miller's chair is a good design. Even their chair is made with plastic, but their product is in a way that you can use it for a very long time. And also the way they design it, you can fix or replace any screws and any part of the chair if any part is broken, so it can likely last a lifetime. Unlike Herman Miller's chair, I saw so many people they bought the chair cheap either from Ikea or from somewhere else, and when they move to another place or the chair is broken they just dump the chair. For the design Herman Miller provided is you can just let him know and they can just change or fix it for you. So you can use it for a life-time long. That for me is a good design, barely the material itself is not eco-friendly, it depends on the usage. If you can use it for a life long, it is likely a good design. On the other side why I don't support synthetic fiber clothing is because of the trend of fast-fashion. An average of the life cycle of a cloth becomes shorter and shorter. And Some of the companies just say they are sustainable, but when you think of how sustainable they are,

they are actually not sustainable at all. So I think a lot of people just miss using that concept, and make customers feel good when buying their product. I just think as a customer, we should be smarter when we consider sustainability to make a purchase.

Vincy: Yeah, it is interesting for me that you mentioned Herman Miller's chair, as you mentioned when they sell a chair, it's likely customers can use this chair lifetime, so how do they balance their business economical factors with their sustainable design? Can you share some of your insights with me?

Renee: Yes, I think that it definitely depends on the value of the company, like what they believe. Like other examples I mentioned before of Patagonia, the clothing company. They know the more they sell, the more profit they can make. But the very well structured repair program is their business image or core business manifesto they are trying to deliver to their customers. I actually didn't do any research about Herman Miller's business value in terms of sustainability, but I felt like they just have that design value instead of it. I don't know how much sustainability they thought about it, because so many chairs they have are designed so many years ago, even decades ago, where sustainability is not even a topic at that time. But I think there are so many premium brands that they are not selling for quantity, but they are selling for quality. They just promise the one product you buy can last a lifetime. That's not a new concept and a lot of people just put quality as their high priority position in their value. So I feel that's also what Herman Miller believes. Each Herman Miller's product is expensive, probably that's how they make that balance. Even if they may sell less products, but for each product itself, they can still make a good profit of it.

Vincy: And do you think the relationship between sustainability and obsolescence, if one way to achieve sustainability is to design with longevity, would it be opposite to design iterations?

Renee: I feel for a lot of European designs, they just hold the value at the beginning. They believe the good design can last forever. The chair model I owned was designed somewhere in the 1980s, and people are still buying it nowadays. I believe Herman Miller also has a lot of talent designers working in the company to design new products. But I just don't know their cycles, the process, like how fast, what is the design process for them to design a good chair, their next classic chair. It can be very fast if you think of how fast the product can be designed in some countries, in some industries, like in China, the product can be designed in several weeks. But I don't want to compare that to Herman Miller or the rest of other classic designs. I got what you mean, but I just want to leave the value of good design last forever. I don't think the existence will hurt design innovations moving forward if that makes sense to you.

Vincy: Yes, totally. Thank you so much Renee for your time, it was a great pleasure to talk to you and hear and learn from your insights about sustainable design in different aspects. Hope you have a great weekend, and keep in touch!

Renee: Ok, for sure, I am happy to have this chat with you.