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Designing for Other (Than Straight, White, Rich Men)

This was my talk for the No Permission, No Apology conference at the MIT Media Lab on Sept 9, 2016. I was on a panel called “Designing for Other (Than Straight, White, Rich Men)” with the phenomenal women Yvonne Lin, Kristy Tillman, and Ridhi Tariyal. Here’s a picture of us on stage:



Afternoon panel for the No Permission, No Apology conference at the MIT Media Lab.

Thank you so much for the invitation to be here today. I’m thrilled to be speaking at such an exciting conference and Megan Smith is one of my personal heroines so I was so glad to see her and get to touch her hand by shaking it.

For my short time with you I want to tell two stories.

First, I want to take a minute to re-state and think about the title of this panel. Let’s say it out loud:

Designing for Other (Than Straight, White, Rich, Men)

My first story that might help us here. I have a friend who was working on doing some data visualizations of a prominent museum's archives. Their collection is a rich and amazing set of artifacts across US American history. In fact, they have over millions of objects in the collection. In the course of exploring this data set my friend put in a search for "black". Metadata about many objects was returned. Many of these objects related to black people and the history of black people in the US—slavery, civil rights, and the jazz era among other things. However, when he searched for white, there are plenty of white-colored objects but virtually nothing shows up about "white" people in American history. Why?

This is because "White" is imagined as the default, normal category. It is so normal, in fact, that it need not even be categorized or logged in the database because it is assumed. "Black" is named as the category that deviates from that norm. The same goes for "Men" (which is often the default or assumed category) and "Women" (the different or other category), "Rich" (default) and "Low-income" (different), "Straight" (default) and "Homosexual/Transgender/Non-conforming" (different, other). You could go on here...

When designers do not specify an audience, they might think they are designing for everyone but in fact they are Designing for these Defaults.

The thing is that once you combine all these defaults, the people that actually embody all those default characteristics at the same time are, in fact, not the majority of the population, nor the majority of the consumers with money. Most of us are the "Other" in one, two or many dimensions. And it's not just ok but it's actually **much better design** to start being specific about those othernesses and ground our designs in those **other** experiences of the world.

My second story is about our attempt to do this here at the Media Lab in 2014. While I was a grad student here a couple years ago, I did the somewhat crazy thing of having a baby. We can talk about whether that was a good idea or not during a really intense grad school experience but I did and I got a totally awesome kick-ass girl. Her name is MJ and she's now three and I just sent her off to preschool this morning. While I was a student here and she was a newborn she became an MIT Media

Lab baby. I brought her to meetings and classes and I'm also super psyched to see people with babies here today. As she got older, I had a babysitter watch her while I was at school. But I faced this problem that many women working outside the home face: I wanted to continue our breastfeeding relationship but also be earning money for our family. So you have a couple of options to do this. Most of them are not good. You can have on-site daycare. This was not an option since the cost of doing that at MIT exceeded my monthly graduate salary. Another way to do this is to use a breastpump to extract breastmilk when you are not with your baby.

How many people have heard of a breast pump? (*Most of the hands go up*)

If you even know what this thing is you are ahead of the game because it's not a technology that we talk about. I didn't even know such a crazy machine existed until I was 8 months pregnant with my first kid.

I turned to the pumping option as I had with my two other babies. But, from deep and long experience sitting in closets and on bathroom floors I can tell you that breastpumping SUCKS. It literally sucks the milk out of your breasts and figuratively DAMN does it suck as an experience. You put cold hard plastic cones on your breasts, the motor makes loud and embarrassing sounds. Being a software developer, I actually always felt like my pump said to me "Javascript Javascript".

Everyone looks embarrassed when you tell them you have to go pump. People think of breastmilk as being something gross. I started having conversations with my colleague and friend Alexis Hope who has a background in maternal health technology. We decided—holy crap—we are at the MIT Media Lab—if the talented genius people here can't fix this problem then no one can. We joined with four other media lab students and affiliates, all of whom were either pregnant or had recently had babies.

So, to make a long story short what we did was to stage the first-ever hackathon about breast pumps. We called it the "Make the Breastpump Not Suck" hackathon and it was here at the Media Lab in September 2014. We convened 150 designers, developers, mothers, fathers, midwives, doulas, biomedical researchers, entrepreneurs, public health

officials, investors and lactation scholars. And babies! I can say with authority that we had the most babies present at any hackathon ever.

And once the word about the hackathon got out in the press in the weeks leading up to it, this thing just went viral. We received more than 90 write-ups about it in the popular press—everything from Forbes to NPR to CNN to the New York Times. We had put out a call for people's ideas to improve the breastpump thinking that we might receive fifty or so. We received over a thousand ideas mostly from mothers. Some of them were in the form of long Google documents and ten-point plans. Many of them said "I've been thinking about this for so long and here's my invention". Others described the pain, trauma, and anxiety around either breastfeeding and pumping or not being able to breastfeed or pump. Others simply said "Thank you".

And still others pointed out that the problem of the breastpump sucking goes far, far beyond the problems of the machine itself—its coldness, hardness, loudness—and touches on the areas like the lack of basic scientific knowledge about the postpartum period, the burdensome and completely privatized cost of childcare (often more than a mortgage or rent payment), the social and cultural norms—really the stigma—that we have around breasts and breastmilk that make women feel like they are doing something gross and weird by nourishing a human life, and finally, the completely shitty, shitty, shitty state of maternal and paternal leave policy that makes it so that new moms and dads are not able to be home with their newborn for the first and most important weeks and months of their lives.

OK. So we did this thing—this event. It was a tremendous success and I want to tell you about three things that it did. First, it pushed public conversation about mother-centered technology into the public spotlight and it normalized the topic of breastfeeding and pumping as a subject of conversation and as a site of innovation. As recently as this summer, the New York Times ran an update story in their business section about the state of breastpump innovation. And my friend who's a PhD student at Georgia Tech told me he was sitting next to a girl on the bus in Atlanta who was sketching. He asked her what she was working on and it turns out that her mechanical engineering class was doing an assignment to improve the breastpump, inspired by the hackathon. In the spring following the hackathon an undergraduate student at MIT took on the problem as her senior thesis and two

participants in the hackathon decided to return to grad school in engineering as a direct result.

Second, the hackathon catalyzed innovations that continue today. Two groups out of the hackathon merged and won an award from MIT 100K prize. One member of the winning team, Mighty Mom, has almost brought his product—a breastpump cozy and noise dampener—to market. And one member from the team Helping Hands recently wrote to me that she has a new idea that she has been developing and looking to grow. We as the organizers have continued to run a Facebook group called Hack the Breastpump that has over 2000 members who post about their kickstarters, pump innovations and policy and maternal health innovations. They also give a lot of pump advice at the same time.

Finally—third—I think we invited and then I think we scared the hell out of the folks who are already in this market that make breastpumps and other breastfeeding supportive technologies. To their credit a number of companies eagerly attended the event as speakers, sponsors and learners. We have heard from them afterwards that the event helped them jumpstart the process of internal innovations.

And finally, I just want to note that we are still going. We have written two research papers out of this experience. And there was enough momentum and public energy to see that this is an area in which change is desperately needed to support new moms, babies and families. We are currently planning v. 2 of the “Make the Breastpump Not Suck” Hackathon for September 2017 and it’s going to include different tracks this time—a product hacking track as before, but also a policy hack and a scientific research hack so that we can start to move the needle in those domains in addition to make the dumb machine suck less. If people here today want to be involved in our second hack in some way, come talk to me.

That’s the end of my second story.

So, just to bring it back full circle—let’s come back to the title of the Panel one more time -

Design for Other (Than Straight, White, Rich, Men)

I think what the title of this panel is asking us to do is to have the courage to depart from Design for the Default and to challenge ourselves, our advisors, our supervisors, our clients and our students to depart from Design for the Default as well. To get specific about who we design for, to invest in listening and learning about their experiences of the world and—to borrow from the spirit of disobedience at the MIT Media Lab—to completely and utterly disrupt the status quo.

