

# TheEditorial

INTERVIEWS WITH VISIONARIES ON EMERGING IDEAS AROUND US

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## Architect for the Next Generation

A major characteristic of the millennial generation is its focus on experience. Take the gig economy, for example; millennials are job-hopping and trying different careers. We're open to more experiences.

By Abigail Bliss

Over the course of our Side-Hustle Series, we've heard from visionaries excited about the freedom and flexibility promised by the gig economy, experts concerned about our lagging policy in the face of the new structure of work, and giggers embedded in the system of straddling occupations and sources of incomes. Now, at the series' close, we're asking, "So,

what's next?"

Yihyun Lim, Associate Director of the MIT Design Lab and Founding Partner and Director of Innovation by Design, has the experience and expertise to offer her visionary version of the answer. A millennial side-hustler herself, Lim's research delves into the ways technology can both respond to and shape human behavior five, ten, or twenty years in the future. From weather-sensitive shirts to bus stops full of curated content for each commuter, Lim's work is buoyed by an endless stream of "what-ifs" and requires a keen awareness of the behavioral mindset of both millennials and the generations to follow.

In the heart of Kendall Square, the world's epicenter of innovation, Lim offered me a preview of the possible changes coming for Boston's commuters, insight into the capabilities of future fashion, and a warning about the limits of "workcations." Take a peek at our forward-looking finale, which gives a glimpse into the defining characteristics of the

generation on the heels of the millennials.

**In your own words, could you tell us about your current pursuits?**

I'm an architect, designer, and a maker, and my personal interests lie in textiles and fabrics. I'm currently the Associate Director of the Design Lab at MIT and involved with Innovation by Design, a design research start up and a spin off of our lab at MIT. Before coming to MIT, I was a practicing architect in San Francisco for four years. I came here to explore how design can be implemented in different disciplines beyond buildings and spaces in architecture.

**The MIT Design Lab examines the “connections between people, information, and places.” Could you ground that pretty broad description for our readers?**

The description is very broad, and that's the exciting part of the lab's research. Our work spans from small scale variables to space design – from looking into how to bring interactivity into materials, building a connection between

the material and the user, to exploring how information is disseminated through what you wear, to spatial architecture and bringing knowledge and smartness into play in our environment.

**Over the course of this series, we've heard from people who've found community through gigging platforms and others who are concerned that the collective social shift from the physical world to the virtual one is fragmenting communities. Could you weigh in on that conversation?**

Actually, I'm seeing the first perspective. Instead of fragmenting communities, these digital connections create a different social sphere where people engage with others in an augmented reality and connect with each other in a faster way. While these connections may not be physical, or human-to-human, we're creating more ways for individuals to connect which is especially prevalent within the millennial generation. At the moment, we're witnessing this big shift towards the mobile;

we, millennials, are the Digit Generation [mimes typing with thumbs]. They say that in the future, if we continue to go in this direction, our two thumbs will grow bigger and bigger because we're using them so much.

At the Lab, though, we're looking into the next steps of this trend and exploring communicating information through haptics and other tangible objects. A lot of our research revolves around connecting individuals with information through devices that aren't digital.

For example, one project focuses on creating a dumb smart object. Your smart phone has all of the functionalities you use daily – it may be too smart – but lacks key social experiences like a handshake or a small squeeze. Imagine you want to communicate very quickly in a simple way with someone 2,000 miles away; you want someone across a sea to feel your presence.

We're exploring the possibilities for this tangible interaction through different sensors, variables, and objects.

Another project we're currently working on

focuses on integrating bacteria, biochemistry, and bioengineering into the design realm.

We're exploring how to bring all that research into conversation with daily objects like shoes or clothes, enabling them to sense the environment, change in response to it, and reveal information that is not currently readily readable. Imagine your shirt, for example, registering and reflecting the UV level when you step outside. Without reading numbers on your phone, you could immediately see that you should wear sunblock. Or, maybe, the bacteria in your clothes could read the amount of lead in an area and warn you to avoid a certain spot. Eventually, with common knowledge, individuals could share information visually. Let's say that I see that your clothing is red, and we have an understanding that red indicates something specific in the environment, something prevalent in Somerville. Maybe my clothing is yellow, and you know that means I'm coming from Cambridge. This area is very open to exploration; there's so much possibility and potential.

**Your lab's architectural projects include the connected home, the interactive bus stop, and the fuel station for tomorrow. How are technological innovations redefining our concepts of everyday space? How does all this new information change the way we think about our bedroom or a bus stop, for example?**

With this added technology, people will be able to interact with their environment in a more personal and customized way. For example, I could engage with a bus stop through my mobile device or other variables to receive contextualized, localized information that pertains to me.

**One project focuses on rethinking the MBTA ridership experience. How can people expect their morning commute on the T to change a few years down the line?**

Imagine you're spending ten minutes waiting for the T. At the moment, there are billboards here and there showing the same information to everybody in the station. Our MBTA project

examines how to bring customization and personalization to the existing infrastructure of our urban spaces. Based on your location or personal preferences, you might receive information with personal meaning rather than getting saturated with information.

**What was the motivation behind founding Innovation by Design? How does your work there differ from your work at MIT?**

Innovation by Design is a spinoff of MIT's Mobile Experience Lab and uses a similarly themed methodology. However, Innovation by Design focuses on immediate projects with an immediate effect, working on fast-paced projects that look one to two years into the future instead of ten or twenty years into the future.

One example of a more fast-paced project would be redesigning the mobile app experience for commuters. Instead of going to the Amtrak website to buy tickets, then figuring out transportation to the station, then looking into Uber and Zip Car, we're looking into a

mobility platform that provides all these integrated services and allows you to plan your entire trip from home to your destination. That type of project integrates new innovations into an existing company or industry and could be rolled out tomorrow.

**Your research offers a wealth of insights into millennial behavior. How does our generation differ from those on either side?**

First of all, the millennial generation is a very broad generation. We're talking about people from the age of eighteen to the age of thirty-five. Those on the older side started with no cell phones and grew into the age of digital connectedness, whereas eighteen-year-olds may have grown up with iPhones. The entire generation, though, is marked by an affinity with technology. It's also the generation that's driving innovation in this country; if you look at startups, it's millennials who are creating these new types of services.

A major characteristic of the millennial generation is its focus on experience. Instead of

only getting work done and concentrating on the deliverables, millennials consider the experience. Take the gig economy, for example; millennials are job-hopping and trying different careers. We're open to more experiences.

### **Could you give an example of these experience-focused services?**

Let's start with something very digitally focused, like Spotify. It offers personalized, customized lists for me instead of just downloadable tracks, giving me curation powered by my preferences, my likes and dislikes. It creates these new playlists – or experiences – every day, pushing out new, bottom-up content. We're also seeing a lot of companies trying to deliver experiences through multiple channels.

### **What does the future of work look like in the gig economy?**

A lot of our research on millennials and technology concentrates on how you can constantly be connected and be in

communication. We're hearing the term "workcation" a lot. Since we're all connected, we can work anywhere, right? A lot of corporate companies interested in attracting millennials offer packages allowing them to work at home or on vacation, or to combine a work trip with a vacation. You can be working at the beach and take the evenings off, right? This has already changed the office environment. No more cubicles: Very open, with people roaming around.

Today, companies have small, popup offices around the world to accommodate their nomadic millennial employees. Co-working spaces, like WeWork, for example, are a now a global phenomenon. At the same time, we won't go fully digital. Face-to-face contact and being in a physical shared space is the main driver for innovation. It is key to sharing and generating ideas. Even though we're seeing Skype and Google Hangout and other forms of digital communication, ten hours of FaceTime is only so useful. You and me sitting across the table, brainstorming, and physically being in

the same space is much more powerful than being digitally connected. Offices will not go away; people will continue to work face-to-face. Maybe we'll be more efficient working on the go, but we'll always have a big reason to be physically in touch.

**Where do you see those benefits of in-person collaboration in our local community?**

Kendall Square boasts the largest number of patents per square foot in the world.

Companies have their innovation hubs here to bring in talent. We're seeing corporate research centers in the suburbs moving their R&D offices back to the city. This is a clear indicator that we still need to be in a densely populated, physical space to easily share ideas. That's why Kendall Square is booming.

Also, a lot of our graduate students are from Harvard, Boston University, and Northeastern; we're bringing in talent from institutions all around the Boston area.

**Millennials get a lot of flack from older generations. Is it possible that we deserve it?**

No. How we live is changing. How we interface with society is changing. If you compare our generation to the Baby Boomers, you have to think about the Dot.com Boom that separates the two cohorts and shaped millennials as they entered society. [insert GenX as the bridge]

And, we should not forget about the current economic situation. We're called Boomerang Kids; we go back home after college and live with our parents. [Boomers] This is in response to the current economic and social situations, and I think the millennial generation has been coping well in that sense. We're more fluid, I think, in the way we navigate space, and our less advantageous economic situation has been the driver for innovation. We can't own a car? We look into sharing cars. We can't own a house? We look into sharing houses, into sharing workspaces.

**What about the next generation? Will they follow in our footsteps, or will there be a**

## **cultural swing in the opposite direction?**

The next generation is an interesting one. We say they learn IOS before they learn languages; a two-year-old knows how to use an iPhone. They're a bigger gestural generation, learning how to communicate with gestures, sign language, or technology before speech.

I was in college when I got my first cell phone. In high school, my peers started to bring the big tank phones – the ones where you have pull up the antenna – and then, phones started to get smaller and smaller. When I moved away for school, my parents wanted me to have a way to call home, so I got a little Nokia. The next generation will not know what the world was like pre-cell phones.

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John G. Palfrey →

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