



The Design Mindset Personalizes Health

Design—a process to identify problems, imagine alternative solutions, and work within constraints to create better futures—can be used to improve an object, space, system, service, or even an interaction. In short, it can be used to improve the components that make up a world where health and well-being happen. Growing awareness that environments and interactions can be designed for health and well-being, and growing technological capacity to design for these things—as well as new incentives for preventive health—will allow the design mindset to scale. Over the next decade, as people recognize that specific effects can be designed into our built environments, our interactions, and our lifestyles, we'll see design become an important, and contentious, tool for personalizing places and interactions for custom health and well-being outcomes.

Participatory design to enhance collective health

Designers will eagerly take on the role of crafting the built environment to meet the health challenges of the next decade, such as obesity, chronic disease, mental health issues, and an aging population. These challenges will each put different demands on the built environment and create tension between, for example, universal accessibility for those with limited mobility and exercise-promoting environments for others. As each design choice will be understood as having different health implications for different groups, we'll see demands to include input from all stakeholders in the design of public spaces or any other shared space. New platforms for soliciting input and modeling health and well-being impacts will become key components of participatory design in shared and public spaces.

Using interaction design to facilitate health encounters

How interactions and services are structured is just as much a design decision as the layout of a hospital room and can be crafted through the same process. In the past, most interaction design has focused on optimizing for speed, efficiency, and patient satisfaction. However, research is indicating that the health and happiness of nurses, doctors, and administrators has impacts on patient outcomes—for instance, provider burnout has been linked to medical errors—creating new imperatives to serve the health and well-being needs of all people involved. Aspects of interactions, such as how long conversations between doctors and patients last, where and when they occur, and the positioning of people in the room and their attire, will all be tweaked to make healthier encounters.

Empowering individual lifestyle design

Regimens for health—such as exercise, diet, mindfulness, and sleep routines—have largely been designed by a few experts and then adopted by masses of people. Over the next decade, the ubiquity of tools for measuring our bodies will mean that individuals will have access to a constant stream of data regarding whether these regimens actually lead to improved health and well-being. This abundance of feedback will empower individuals to design their own lifestyles and environments, by making incremental changes to their spaces or health regimens and seeing if the changes affect the metrics that matter to them.

These **artifacts from the future** are examples of products, services, and experiences that may play out in the future based on this forecast.

EZ LIFT



WHAT:

That dreaded “low balance” beep rings in your ears as you near the top of the escalator. “Come on! It’s Monday morning,” you say to yourself. You’re not in the mood to take the stairs... but unless you buy more credits, that is your only option. That silhouette spray-painted on the ground looks an awful lot like your own and taking the escalator won’t shrink that belly. But you’re siding with who ever vandalized the sign this morning: EZlift sucks. You don’t like being forced into someone else’s health agenda—and you’re not alone.

SO WHAT:

The next decade will bring unprecedented numbers of both older people and obese people, each of whom have health and well-being needs that can be addressed through the built environment. Redesigning physical spaces becomes a question of who has the authority to set a health agenda. Mandating physical activity may prove necessary to reign in health spending, but could risk disempowering the very people it’s trying to help. Designers are faced with the difficult task of making healthy behavior change intrinsically motivated, not mandated.

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EARLY CHILDHOOD

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WHAT:

Visiting the hospital for a broken hip wasn't exactly how you had planned to spend your 82nd birthday. After this setback, you come across this ad in a magazine and wonder if it's worth a try—your space could use some retrofitting and “interaction design” sounds intriguing. And you're determined to stay in your home as long as possible. You go to their site to learn more and the benefits they promise are compelling: safety, mobility, even increased social interaction! You haven't played with pipe cleaners in 60 years, but you're determined to stay independent, so you order one. It looks like a great activity for your son and grandkids to do with you when they visit next week!

SO WHAT:

As the demand grows for “aging in place” solutions over the next decade, families and caregivers will use design thinking methods to create spaces and interactions that support the needs and preferences of everyone involved. The process is particularly well-suited to help with all of the unfamiliar scenarios and challenges that come with growing older. It will be important to equip individuals with these tools so that they feel empowered to help themselves and family members manage this transition with ease.

Smart design has become a key element of an increasingly large array of health interventions. Over the next decade, we will see efforts to take these design initiatives and make them more participatory, and eventually personalized and programmable, in order to alleviate the health challenges of individuals and communities.



CREATE CONTINUOUS CHRONIC CARE: Participatory design for collective nudges

Small design changes to buildings and public spaces—such as widening bike lanes, moving stairwells, and rearranging grocery store shelves—can create defaults that encourage active, healthy lifestyles. Careful deployment of these kinds of creative, low-cost design solutions that encourage healthy behavior—but are not so extreme that they restrict access to those with limited mobility—will be a powerful solution for treating and preventing lifestyle diseases.



ENHANCE EARLY CHILDHOOD HEALTH: Designing healthy head starts

Habits formed in early childhood can stick with us for life. The ways we eat, respond to rewards, or react to stress all have long-term health implications. Understanding this, parents will seek new tools to design lifestyles for their children that will give them a head start in health and well-being.



SUPPORT END-OF-LIFE CARE: Interaction design for mindful decision-making

As life spans continue to grow, designers will help rethink the end-of-life experience. Interaction and service design will be especially useful for individuals, families, and caregivers making tough decisions. Physical spaces can be designed to facilitate conversation or allow for contemplation, and the process of sorting out financial and funeral logistics can be redesigned to alleviate stress.



OPTIMIZE WORKPLACE WELLNESS: Making space for personalization

As people adopt the design mindset and begin optimizing their spaces and lifestyles for their own unique biorhythms, collaboration styles, and physical health needs, they will demand not only customized workplace wellness plans, but also the freedom to personalize their workspaces and schedules. For instance, if a person discovers that sleep or exercise has the greatest health impact during certain hours, allowing them flexibility to do those things at those times may improve both health and productivity.



BUILD COMMUNITY HEALTH CAPACITIES: Participatory creative place-making

As persuasive, health-promoting environments become a popular strategy for public health, unilateral, top-down design decisions will risk making communities feel disempowered and could inspire a backlash. Finding ways to allow communities to take part in the design of their own spaces—such as place-making initiatives that use participatory art and design—will be important to optimizing community well-being.

KEY RESOURCES

- New York City Department of Design + Construction Active Design Guidelines. 2013. www.nyc.gov
- Kuang, C. “In the Cafeteria, Google Gets Healthy.” *Fast Company*. 2013. www.fastcompany.com
- Liu, J. “CDCs and Creative Placemaking: Who Should Learn from Whom?” *Rooflines*, National Housing Institute. 2013. www.rooflines.org

