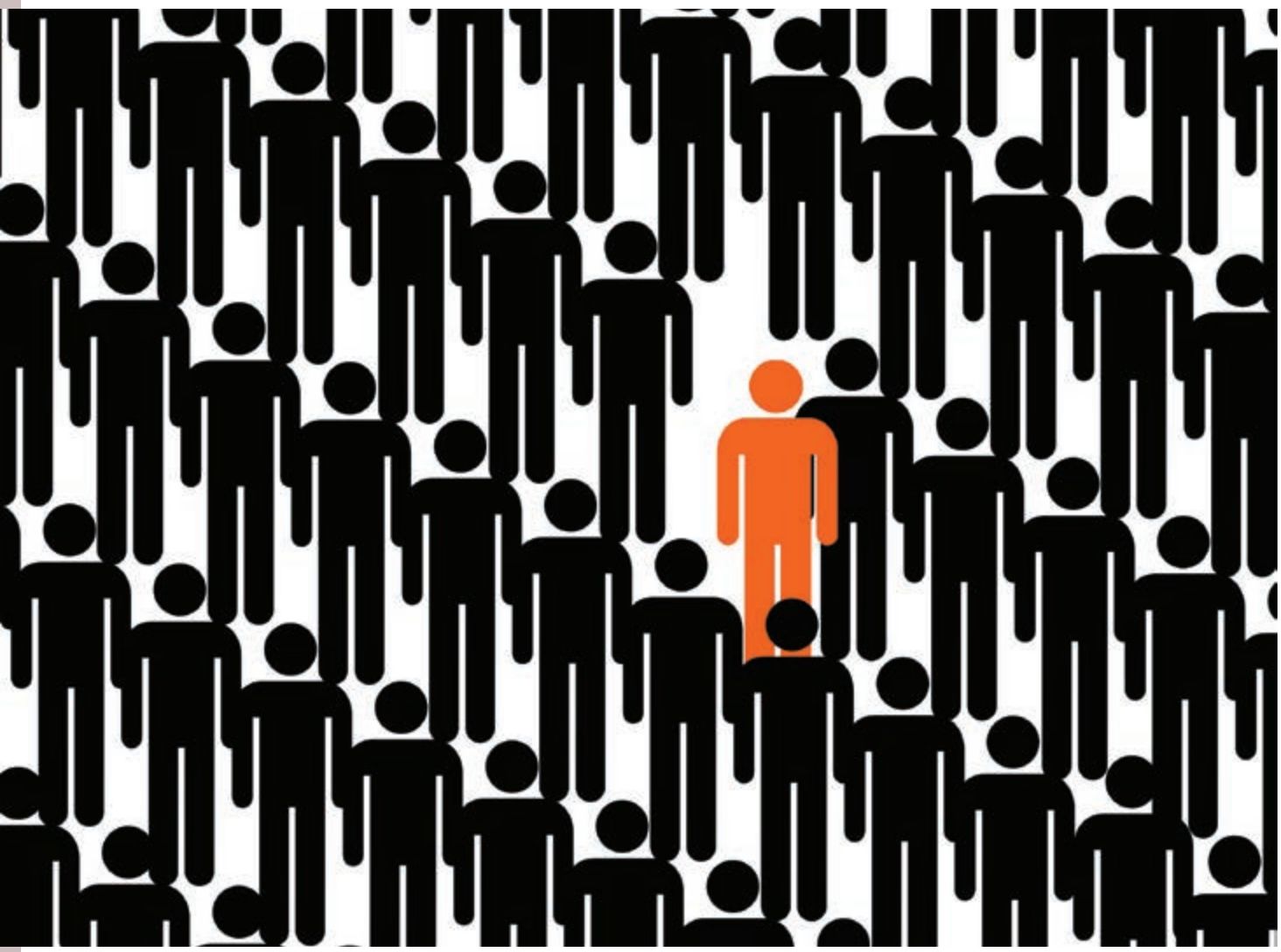
REFRAMING THE FUTURE

On Design Against

Emily Hays and Rex Miller

> “Design Against is about questioning the status quo and redefining how we approach a problem or a solution and changing our perspectives as much as we can in the design process because that will lead to more innovative and more applicable results.”



Emily Hays: The theme of the journal is design against so several of the submissions are either like Utopias or dystopias. We are interested in the extremes of this topic, but we also want to look at real life and current situations where people are engaging with this topic. Can you tell me about how you use this topic? Are there tools you have?

Rex Miller: Scenario planning is a tool that futurists use. I'm a futurist by degree. I studied the effect on culture and a society of shifting communication technologies. We can now build 4 scenarios using current trends and events that fall into these quadrants to imagine what the world would be like. We also look at the trends. Technology is a big one. We can filter the quadrants through the technology lens. One scenario of the future is cooperative and abundant. Another could be cooperative and scarce; another could be competitive and abundant like now and finally competitive and scarce. Today we're living in a world that's very competitive and it produces lots of winners and losers, which is uneven. It's a great way to look at mapping possibilities using trends in technology, in society, in the economy, in the changing generations, etc. Then you just pick a variety of extremes and see l what the world looks like.

EH: Do you think that your experience with this has shaped how you work now?

RM: Absolutely. About 25-30% of the work I do now is helping organizations not try to predict the future-because that's difficult but map a future path. How do we shift who we are today and get to something else? It's a process we have called mind shift. We've written four research books using this. The first thing we typically do is look at is what the main constraints are and what the current system is. I do a lot of work with architects and construction firms. We looked at the game of bidding. What we determined is its a system where the rules dictate that the low bid typically wins. Now you can get all kinds of behaviors based on that and they're not all good behaviors. When we look at that in the future scenarios, we want to look for various

alternatives. Organizations or individuals that are actually attempting some of these non-traditional approaches are called outliers. William Gibson is a science fiction writer and he sets a standard for how to go about finding new futures. He said, **"the future is already here it's just not evenly distributed."** Part of our research is to go find somebody who is living aspects of the future we've imagined and find out how they got there. What did they do differently?

EH: That's great! Now, we talked about it a little bit, but what drove your interest in this topic? That obviously deals with your familiarity with futurists.

RM: First it was my major that I didn't get to use much. After I graduated from the University of Illinois with a Communications major I went to work as a project manager for a large communications company. It's now AT&T but was Southwestern Bell then. They were going through some radical changes, one was a technology shift. From analog or mechanical switches - which you probably never heard of - to digital switches. That was a new technology that was a major breakthrough. It led to changing a regulated industry into a competitive one. So, I saw that major shift take place, and it was cool to see. I've watched how the business models have changed, how the work environments have changed, and how we had to move to an environment that was more flexible. When I became a subcontractor trying to promote a new product that seems like a no-brainerI ran into roadblocks and obstacles. The product had higher quality, took less time to install, did not need a lot of training to do it but people fundamentally rejected it. That drove me to want to get apply my background as a futurist, not just as a hobby. I wanted to change the industry so that it wasn't so adversarial and so opposed to new ideas. I wanted to develop a structure that would allow people to come together early, collaborate and innovate with the owner.

EH: As a student of architecture, I am somewhat familiar with the construction industry's practices and its inflexibility. I assume this may be the case for other Industries, as well. They learn to do something a certain way and it's hard to change that especial-

ly from a financial perspective. Why do you think that is?

RM: The process we used to shift the industry of construction, we then applied it to companies and their cultures. We tackled education and then we went to health and wellness. The challenge is we create create a business structure to facilitate doing a certain kind of work but when the world changes the structure doesn't. All the habits remain the same. First technology changes, so startups are the first most flexible, followed by small companies, then large companies, and then institutions like education. Education and healthcare are way behind and have a lot of bureaucracy. They're less able to adapt because the structure they created constrains them from being able to do different kinds of things. You've got structure then you have the process that manages the workflow. Those both have to change. Then there is the financial dimension. You will need a different kind of culture to support a different kind of talent with a different kind of training. It is easy to see why it is complex within one organization and then that organization is within a larger system-the industry.

EH: And that has to happen every time there's a major advancement or shift. So that's a lot to track.

RM: I don't know how old you were in 2007, but there was a major technological breakthrough, the iPhone. Apple wasn't in the phone business; they were making computers and iPods. But, technology was moving fast enough that they could combine three technologies: storage, telecommunications, and wireless into one package. At the time companies like Nokia, Motorola, and Blackberry were some of the largest phone manufacturers, and they were essentially out of business after that. The iPhone changed all the rules. That's what happens to companies - they have this mentality that tomorrow is going to be a little bit like today and the next day is going to be a little bit like tomorrow. It's a rational thought process, but the problem is that technology moves exponentially. I use the penny analogy with people. Would you rather have a million dollars today or a penny and double that every day for 31 days? Which one would you take?

EH: I suppose I'd choose the Penny.

RM: Yes! Many people have a hard time knowing why, though. What happens is at day 28 you've got $628,000 so at this point a million dollars was the better choice, but suddenly on day 29 then it's $1.2 million. Day 30 it's $2.5 million. That's what technology does. That's what happened to Nokia. All of this development for the phone was happening visibly, but Apple came in with fresh eyes and saw that the three things can be combined. They weren't thinking of it as a phone. The same thing happened with Kodak. They made film, right, but they also invented the digital camera in 1975. In 1975 the images were lousy. Eight kB in two years became 16, in two years became 32, in 2 years became 64, and so on. Now, 20 years later this exponential rate of change is everything. Kodak thought digital images would never be any good. They stuck with the million-dollar cash cow of selling and processing film and then day 29 came and Casio had taken over in 1992. By then it was too late for Kodak to catch up. That's why it's so tough for organizations today.

EH: I remember buying a 32 Gb flash drive in 2012 and it was very expensive, and I lost it recently. When I was faced with buying a new one I hadn't realized how much had changed. I can get the same 32 Gb drive for $5-$10.

RM: Yeah isn't it crazy? That's why it's hard for companies to adapt. It's even harder for industries to adapt because that change happens so dramatically, quickly, and it stays invisible because you're focusing most of your effort on the primary thing you're doing. Companies need to have people keeping tabs on what's developing. Within a couple of years solar energy will be cheaper than the grid. Electric cars, in 10 years, will be cheaper than what we have now. All because of Technology.

EH: There is an increasing cost for employers covering health care costs for their employees, but companies save more money if there was more investment up front. How do you get people to care about this? Or change their mindset about Healthcare?

RM: Reduce the stress at work. This is the research from the book The Healthy Workplace Nudge. Healthcare costs will double in the next 10 years. You and I won't be able to afford healthcare, and neither will the country, so it's a big problem. Wellness programs attempt to change behavior. Now there are four key behaviors that drive 80% of all our health care costs: smoking, abusing drugs and alcohol, eating too much of the wrong kind of food, and sedentary lifestyle. Those things lead to what's called chronic disease. They build up in your body as inflammation and begins to wear the body down. Then we gain weight to the point that 70% of the population is either overweight or obese. 50% of the population has some form of chronic disease. This is what is driving up health costs and it is rising at a 7% compounded growth rate. Wellness programs are trying to get people to stop doing those behaviors or doing less of them. When you look at why people adopt those behaviors it is clear why wellness efforts don't work. Stress is the real killer and smoking, drinking alcohol, eating comfort food are ways people deal with stress. Unless we're really dealing with the root cause all those programs don't do anything because biology is stronger than incentives. Your body needs to cope with stress. The other thing we learned is that most people are not rational human beings. In fact, nobody is. Your brain uses 25% of your daily calories, and only 20% of the time is it focused on survival or things that are highly important to you. That is really all it has the power to do. Most of the time you're in default mode. I don't know if you've ever been to McDonalds or any place where they offer to super-size or grab a pie for a dollar. A lot of the time people just say, "sure, why not." That's because 80% of your brain is in default mode. It's called a nudge; an application of behavioral economics. One of the promising things we're seeing is that companies can use these nudges either in policy or in the environment. And that can help shift behavior towards better choices. It is effective, while traditional incentives have proven not to be effective in changing behavior.

EH: You didn't formally study architecture, but you work closely with this field now. What drew you to this and why do you think architecture is important?

RM: I was a tennis pro getting married and I needed a real job. A better job with decent hours but less pay. A friend hired me as a project manager in the architecture and construction department. What I saw was how powerful design is in the way people feel and how people work. You know it too. There are certain places you probably go to work because you like the way it feels. You like the sunlight, or you like the wood tables - whatever the sensation is. We are sensory driven beings. The environment matters. Buildings are also very important in terms of communicating what we do here. Every building tells a story, it either tells a good story or a bad story. When it's a good story the design is clear and intuitive. You know what we do here, why would we do it, what's important to us, and it even tells you who is important. It does this through corner private offices or through other mechanisms. It gives you permission about what to do and what not to do in the space. It makes it easy to navigate. Have you ever been to a hospital to visit a family member and can't figure out where their room is? Then your stress level goes up because you feel like you're in the catacombs. So, architecture has this kind of effect on us: the better we can do it the better people operate and we can actually lower the stress of people. Have you ever been in an environment that felt stressful? Or a relaxing space?

EH: Yeah, of course. I'm really sensitive to my surroundings. My partner is not from my field. He lived a very bachelor style life and when he came to my apartment the first time he said, "it feels so homey here!" He said he felt different within that space. This of course I did on purpose and he is not the first to recognize that shift in sensation.

RM: Yes Exactly. That's what architecture does. What you did was by design. That's cool.

EH: Can you talk about myths and lies perpetuated regarding the wellness industry and how misinformation can harm us?

RM: Well the wellness industry says that if you spend a dollar on preventive care (Wellness programs that includes fitbits, walking incentives,

etc.), then you will see a return on investment of $3 or more. We spent 6-7 months trying to find the source of that information and it doesn't exist. There are two studies that people attribute this to. First, there was a Harvard study that said $1 produces a $3.78 return on investment, but they had to retract that report because it was bogus. Second, there was a large medical equipment company that people said made that claim. I spoke with their head of Occupational Safety and Health who had been there for 12 years. He said he was aware that they were referenced for this but had no idea where the research came from. The challenge is the research methodology. What is their Baseline measurement? Do you have a control group? Who is measuring it? Is it third party? Is the wellness vendor involved? All of this must be considered to really evaluate the number. Furthermore if it were really true, if a CFO of a company knew that he could get the 300% return on his/her investment by focusing wellness, they would be doing it. But they aren't, instead they are cutting costs. On the surface that claim doesn't make sense and that's the biggest myth that has been promoted in Wellness. There is a whole chapter in the book devoted to the myth of financial payoff.

EH: Design against is about changing the way you think and questioning whatever you're given. This is not only how you deal with problems in the book but how you work in general. What do you think is the merit of this mentality and ability to shift perspectives?

RM: That's a great question. What I've discovered is that we assume things work a certain way. When we started the research on wellness we assumed that wellness programs were good. Our intuition tells us that prevention is better than the cure. We seldom go much deeper to understand what the problem we're trying to solve is and its effectiveness. Now, because these problems are really complex and hard to unravel, my process brings in other stakeholders. We had over 130 experts from medical institutions involved in the research and none of us had the whole picture. It was only when we came together collectively and debated this that we started questioning our basic assumptions. That's when we started to uncover the real issues. I have found

that over and over in my life. You are at a certain level and then when you go a little deeper you find that you really didn't understand at all. These books are often my journey to figure things out that I assumed were true and turned out not to be. They just happened to be big topics like why education is failing.

EH: In an ideal world what is the outcome of people reading this book?

RM: Well I think the ideal outcome is that they began having the conversation internally. This is a road map to provoke discussion. We aren't saying we're the final word on this or in anything that we do. Just like we thought we were working on good assumptions in the first place - we don't know. But what it provides is a way that we can go figure this out, own our own truth, and have some ability to design our own future. I was with an inner-city school in Philadelphia a couple of weeks ago, and I shared some of the conclusions we made in education and where our research was headed. They pushed back hard on this because the research made it feel as though we were stumbling on new information on stress and fatigue. They were essentially saying this is the way it's always been, and it wasn't new information to them. That interaction helped me see that the condition is not new but our understanding of it is and that is its value. It's not that we're giving stuff out for people to take at face value we want them to wrestle with it.

EH: Can you tell me more about the Mindshift initiative?

RM: It is the process that we use when we are invited to tackle what's called a wicked problem. If you look up "wicked problems" in Wikipedia it talks about something being complex, interrelated, resistant to change, and oftentimes efforts to make improvements result in intended negative consequences. Essentially anything that is stuck. Anything you have been trying to fix for a while we call that a wicked problem. The Mindshift process is how we go about fixing that. First thing we do is gather a "collection of the curious". These are people who are realizing there is a problem and are interested in working

on this. Then we work a bit to come to what we call the "cohort of the committee". This is made up of those that say, "Yes we have clarity on what it is, and we want to solve it." For example, in the construction MindShift we wanted to go from distrust and adversarial projects to trust-based projects. In education we wanted to go from a system designed to create insecurities and fear to one that fosters security, connectedness, and learning. In the workplace we wanted to go from an environment and culture that creates disengagement to one that lets people do their best work. These are all journeys. The process leads to us finding those positive outliers. Those breaking the rules and getting better results are the ones to watch. Then we can connect those dots, finding the commonalities in their behavior. Something similar that they are all doing. We then bring that together and tell a story.

EH: So, the Mindshift Initiative is the process your consultation firm uses, and you are not limited to a single industry, correct? Do you think that working with different industries on these complex problems has helped you?

RM: Anyone that is stuck in any industry, if they have a complex or even Wicked problem, then we put on our Superman capes and we show up and we play together. Working with various industries helps because what we are finding is that the human dynamics are the same. They are just in a different situation. It's like if you're living in a fishbowl you don't know water is good or bad. If we jump into someone else's fishbowl we suddenly see and feel the difference. Looking through a different lens makes it easier to understand what the problem is. It helps us to validate what we do and gives us different words, pictures, and metaphors that we can operate on and take with us to the next wicked problem.