Evil by Design

Kit Oliynyk  fiorine
Hey, designers, developers, and product managers. Hey, creative people. How’s the conference going so far? Good? Did you learn a lot? But we know so much already. We can make apps and websites; we can craft beautiful stuff out of nowhere within minutes. We believe in changing the future by making cool things—simply because we can. But are we responsible for our creations? Are we sure we’re not bringing evil into the world?
I’ve been a maker since I can remember myself. When I was a kid, I had all sorts of Legos, Erector sets and play-doh. When I was a teenager I started programming games on big science calculators—remember those? Making something from nothing was an amazing feat, it felt so good. Felt so… godlike.
I’ve got my first job at 15 — as a desktop publisher in a magazine. I sat in front of my old PowerMac, moving paragraphs and images around in QuarkExpress and then—magically!—a stack of freshly printed magazines would appear seemingly out of nowhere. I learned that design gives you this power to materialize things, to change the universe around you.
By the time I was 25 I was designing apps and websites, I made logos and books, business cards and booklets. It didn’t matter what to make—that awesome feeling was all the same. Someone gave me this laptop sticker, and I wore it proudly for years, as a sigil. The sticker essentially meant I was prioritizing making and shipping things over everything else. Over consequences. Over ethics. I moved fast, and I broke a lot of things.
And so did our industry. The year 2018 was dabbed the year of tech ethics by many, and half of this conference is dedicated to this very topic. So I’m sure you’ve seen all of these nice headlines.
And more.
And probably read a lot of articles on this topic already.
How did this happen? We were focusing on how great we’re at our craft. And in our naive and blind optimism we were dead sure people gonna use our products in the exact same way we’ve prescribed them. We believed in the particular version of the future, and we’ve been making new things to move fast and break this old world, regardless of consequences.
We’ve treated people merely as consumers of our craft, as users, and we’ve built our businesses around it. My former boss Jesse James Garrett once said, “The only people that refer to their customers as “users” are drug dealers and technologists.”
As designers, we’ve been mainly using our craft to make stuff on demand. Our business partners (and sometimes our own research) suggested that people don’t like to think—so we made algorithms to think for them. Algorithmic recommendations biased our minds and disconnected us from reality.
Our business partners wanted more engagement—so we’ve designed a **dopamine economy**. We used interaction design to hook people up and make them addicted to our products. And we’ve succeeded. We’ve **enthralled** people with our beautifully crafted apps, and we made sure they’d never let go of their phones again. We barely have the attention span of the goldfish now. But it’s not just our partners’ fault. We were so proud of ourselves and our power that we didn’t want to ask the hard questions—how exactly our work is affecting human lives?
We touted “disruption” and “innovation,” but it turned out we’re disrupting privacy and innovating addiction. We’ve glorified “creativity” and “maker” culture because it gave us permission to create without actually being responsible for it. And it made us feel godlike.
Now let me tell you a story. There’s this ancient Greek philosophy called Gnosticism—it’s about understanding the ways of gods. There are possibly many gods out there, but I’ll talk about one in particular—The Demiurge.

Demiurge is a godlike entity who created and maintains the physical Universe. The Creator. The Ultimate Craftsman. However, he is not the kind of god that holds your hand, and absolves your sins—there might be another god for that. Demiurge only cares about making. He creates merely because he can. Because in his mind making is beautiful and noble all by itself. But he’s not The God; he’s not divine, he’s just a maker. He makes mistakes. Everything the Demiurge created is fundamentally flawed because it can bring suffering to people. It is burdened with evil.
We are creators, artisans, craftspeople. We create apps and websites, products and platforms. We make something from nothingness. Ancient Greeks might’ve called us gods too. And yet, we’ve conveniently detached ourselves from ethical problems because it was so much easier to call ourselves “creative”! When we are defined as “creative,” our sole purpose is to create—no matter the consequence.
I have bad news, folks. We are not the creative class anymore. We are now the responsible class.
If we build a thing that kills people, we’re complicit. If we made any decisions impacting a product that makes people suffer, we’re complicit. We just built something burdened with evil.
We need to start being responsible. We need to start thinking about the consequences, right from the start.
Okay, Kit, enough doom and gloom, we get it. But how?
Alright, here's something that feels like a good first step: **let's fix our damn egos.** It's not about us and our craft anymore—it's about the consequences to our society.
Step 2: We can't do this alone. Connect with as many people in your company and get to know what you collectively believe is right.
Step 3: Start asking some hard future-proofing questions to understand what could go wrong with your product. Makes sense? Ok, let’s start with ourselves first.
There was a great talk by Morten Rand-Hendriksen last year where he introduced these two concepts. Historically, we’ve been focusing only on our visions of the brave new world, the future, the “happy paths”. I think it’s time we start designing for all the other paths, as well as the happy one.
Fjord presented this framework last year, and I've honestly spent some time trying to make it work for this talk. I've looked at all of my case studies, and I tried to fit them into these cut and dry quadrants but it didn't work. It felt like I don't know the real story behind most of those products. I can't in good faith point finger and call some company a super-villain, because often there's both good and bad. Some benefit for the people, AND some risk for society. So how do we weigh one against the other?
Exhorting people and organizations to “not be evil” clearly doesn’t work. Evil seems to appear regardless of our good intentions. The individuals who create some of the most oppressive digital systems are mostly good people. They are doing good work, for good reasons, and yet their creations can turn against us without anyone purposefully willing it. Everyone knows that our tech should be good, but we struggle to understand how to make that happen. We need a methodology that works. We need a set of tools.

— Alan Cooper

Well, I guess it's hard to fit human beings into a binary framework. We're not monsters. There are a lot of good people in the tech industry. And most of us care about our society. So why do we keep moving fast and breaking things? How might we slow down and start asking some hard questions not only to our peers but also to our business partners and stakeholders?
Let me tell you another story. There was this developer named Ryan who was designing a payment flow for the ticketing website. He saw other websites using a purchase timer, but he wasn’t sure if it’s a good solution. He probably bought some tickets online before, and it just didn’t feel right for some reason.
So he went on StackExchange and asked the community a question. Notice the assumptions he has: he feels that the timer might feel “pushy,” but he cannot say why. He also doesn’t question the tech itself—what if there could be other ways to prevent overselling the tickets? The fascinating part is that his guilt of possibly being too pushy translates into a desire to hide the timer, yet keep the 10-minute reservation limit.
Half an hour later a local community expert swoops in with a bunch of peremptory statements. No, people don’t like surprises. People like being in control. People don’t want to make a mistake. We have an arbitrary 10-minute reservation period instead of tracking the sold tickets in real time. But we want the experience to be positive, so let’s actively help those poor suckers complete the purchase as fast as possible. Period.
Just 2 hours later another person shows up to point out this seemingly obvious fact: people might feel the timer is frustrating, annoying and possibly panic-inducing. People might make mistakes while trying to fill a huge payment form under the time pressure. They might mistype their credit card number or abandon the whole thing in utter despair, so there won’t be any sale whatsoever.
But it was too late: the first response gets upvoted as the best answer. This story happened in 2011. Imagine how many developers worldwide were searching for answers on StackExchange since then and considered this purchase timer as the best industry practice. Imagine how many of them didn't even read past the first one. This is how we set precedents by every little decision we make. Such a shame.
Ok, clearly we all make mistakes. Our judgment might be flawed, we’re ignorant, and we need more perspective. So how do we include way more people into this conversation?
These guys on StackExchange sought answers and precedents only from their peers, software developers. When we ask questions to the same limited group of people, we get the same answers over and over. We get biased. And we build those biases into our products and services.

Design: We can test this w/o writing code!
Programmer: We can test with w/o hiring a designer!
Data Scientist: We can just mine the data!
Biz Dev: We can just partner w/ X!

See the pattern? Real X-functional teams just figure it and don’t make defending their turf a priority

2:57 AM - 4 Jan 2019
This soap dispenser was meticulously designed and engineered by professionals, the tech specs of this sensor were discussed at lengths, and it went through some proper QA testing. Problem? Perhaps there were not enough people of color on the team—or, better yet, just no one to ask the right question at the right time.
Or maybe a tech company didn’t have enough women on their team to remind them that gaining weight during pregnancy is perfectly normal. That’s why diversity and inclusion are so damn important—to overcome biases and bring broader perspectives into our product discussions to make sure we’re not making something evil.

Swapna Krishna is on maternity...

Hey tech developers: It’d be really nice if you put a “pregnancy mode” in your weight/training/workout etc. apps. I’m getting really tired of my smart scale and exercise apps yelling at me for weight gain/decreased activity.

7:05 AM - 30 Aug 2018

2,638 Retweets 13,890 Likes
When we’re not sure what’s right and what’s wrong we resort to precedents and examples; we’re in the reactive mode. Even our public policies are ultimately based on just a few precedents. But humans are infinitely unique in their beliefs and behaviors, and it might be impossible to learn what’s wrong by just making a giant list—that’s why dark patterns libraries and codes of ethics don’t always work. Ethics are not binary; they are a product of endless conversations we ought to have with one another.
When you start talking—and listening!—to your coworkers, you might find out that people are different. Yeah, like REALLY different. And we all believe in different things. It's impossible to force people into believing what you want, but it might be possible to build a system of *shared beliefs*. Here's a great framework by Alla Zollers. Listen to each other, share your perspectives, and build a common foundation of ethics: what do we ALL deem right or wrong?
Ok, let's say you've included as many different people into your conversation about ethics, and got a decent idea of your shared beliefs, values, and virtues. Now it's time to start asking some future-proofing questions to collectively understand what could go wrong with your product, and what risks are you possibly facing.
Jared Spool recommends a great workshop to run with your partners and stakeholders—instead of sticking to a “happy path,” try to collectively imagine all the ways the product experience could be made worse—then mapping what he calls “User’s Journey Into Hell.” And as you’re doing it together, it becomes easier to empathize with people and start making their lives less miserable.
Here's a similar idea: try to imagine a Black Mirror episode featuring a technological disaster or a huge public scandal involving your product. Wow, things are suddenly getting real. And yeah, don't do it with just your peers—designers or developers. Do it with as many people from your company as possible—lawyers and security folks too. Believe me, they might know about disasters and scandals much more than we do.

In light of the latest FB scandal, here's my proposal for replacing Design Sprints:

Black Mirror Brainstorms

A workshop in which you create a Black Mirror episode. The plot must revolve around misuse of your team’s product.

Pair with @brownorama's idea of "abusability testing"
Another great tool to find common ground with your stakeholders is building a **moral value map**. Which values best describe your product—and how might that influence your product decisions? How does your product inhibit, support, limit or enable people in different contexts? Notice how these values might map really well to your system of shared beliefs.
Finally, here’s a fantastic framework called EthicalOS that came out in August last year. Let me give you a quick overview.
This framework structures our dystopian and future-proofing conversations into eight possible risk zones—to help us think of ALL the ways our products can make people suffer, and make sure we’re not missing something.
These are the kinds of questions we can ask one another. Notice how much easier it could've been to prevent all of these case studies we've talked about—if only someone would ask the right question to the right group of people?
Alright, this conference is called Interaction, so let's do some activity together! Look at your neighbor and say hi :) Now over the next 5 mins I want you to talk about the tech you're building. Figure out what could be the biggest risk zone for your neighbor, and ask them one of these questions. Ready? Let's go! [5 mins]
Ok, great. How did you feel about asking those questions? Having these conversations ain’t easy. Sometimes it’s hard to make the case, to win the argument with your partners about being ethical. These books can help. Educate yourself and your teammates about the consequences of our work—and perhaps next time we could build something more sustainable and healthy for our society.
Another thing you could do is take a class in ethics—and offer it to your partners and stakeholders. Ethics is now a part of our craft curriculum. We need to learn not just how to make things, but rather if we should make them in the first place.
We’re neither gods nor monsters. We’re makers. Just like the Demiurge, we sometimes make mistakes. We used to think of ourselves as craftspeople, and we’ve been focusing only on our visions of the future, and the “happy paths” without thinking of consequences. What if we start asking each other some hard questions? What if we tie our design incentives not to moving fast and breaking things, but rather to the diversity of thinking, inclusivity and social good in our products?
One last thought. We can't add design ethics at the end, like sprinkles on top. Design ethics don't sizzle. It has to be a core system of beliefs: yours, and everyone else around you. Everyone is a designer these days. Developers, product managers, business analysts, lawyers—even everyone who makes a decision impacting your product and, ultimately, the health of our society is a designer. Talk about your beliefs with all of them. Ask them what's right and what's wrong. Because if we don't, we're possibly making something burdened with evil.