

Sensitive Technology

Principles for making technology human



LIPPINCOTT
Sense Perspective



**Four and a half million homes are opened
to strangers in 81,000 cities through Airbnb.**

**Each year we take 4 billion Uber trips
to visit friends, family, colleagues and clients.**

**Amazon's Alexa and Google's Assistant
are having conversations in homes around the world,
with 100 million sold just a few years after launch.**

**Three hundred million people
are learning a new language through Duolingo.**

**Thirty million people are reducing their stress
and increasing their focus with Headspace.**

**Forty-five trillion steps were taken
and 41 billion hours slept with a Fitbit just last year.**

*How do technologies
earn permission to
be deeply integrated
into our lives?*

It is in part because of what they do for us. They save us time, help us exercise more, make us extra money. But it is also because of how they do it.

Good technologies accommodate us as humans. They are understanding of the information and guarantees we need to let a stranger stay in our home. They are compassionate to our concerns for family members on a taxi journey, so they help us track those family members' locations. They are perceptive in how they respond to our voice commands. They are attentive to how we learn and achieve. And they are delicate with the encouragement that guides us towards healthier minds and bodies.

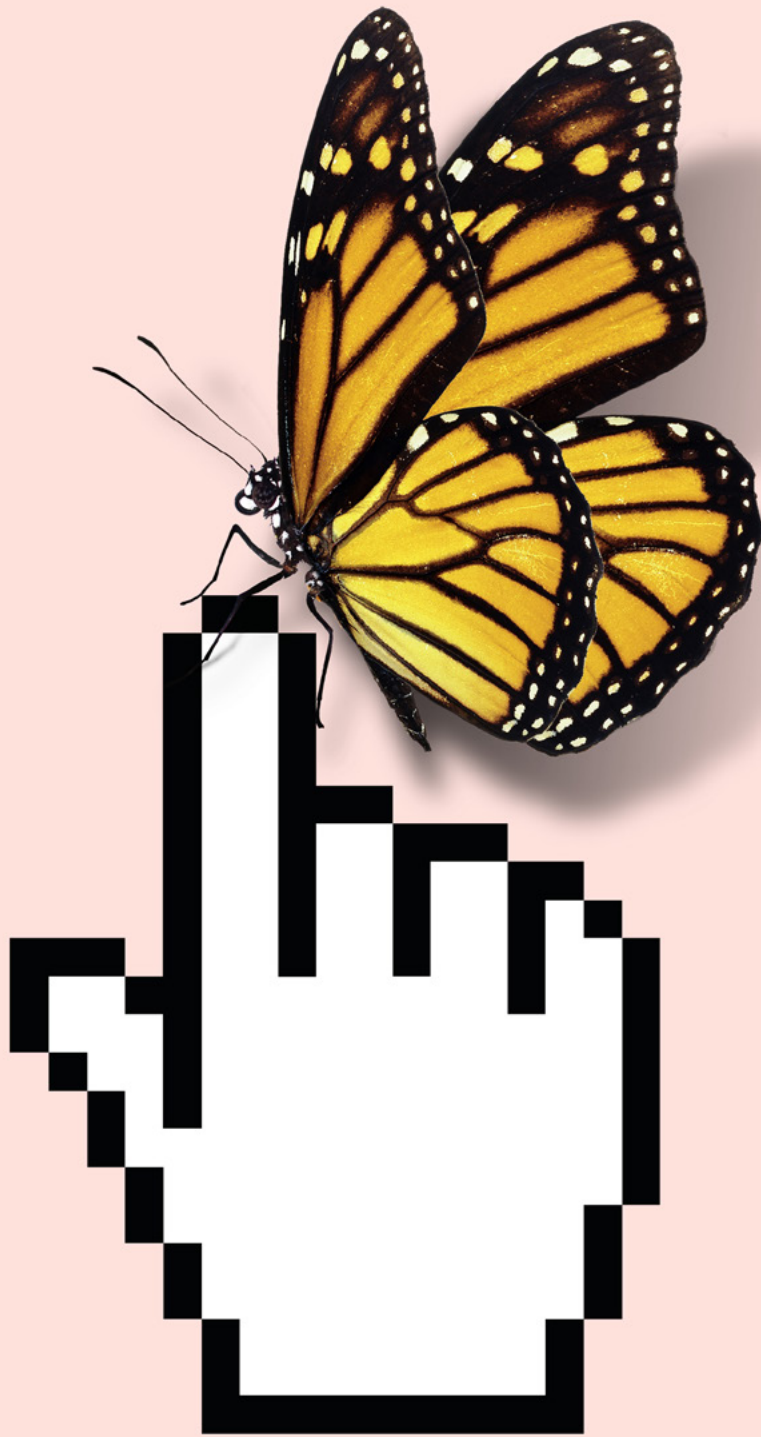
Designed without such considerations, the functional value of technology may be left untapped. With these considerations, technology becomes sensitive to us as humans. And using it comes naturally.

To help technologies realize their potential,* we developed a design approach underpinned by behavioral science. We call it Sensitive Technology. It sets a design responsibility for technology — to be understanding, compassionate, perceptive, attentive and delicate.

Sensitive technologies account for our human nature as well as our context, and they respond considerably. This matters because only technology that is sensitive to our thoughts, feelings and behaviors will be deeply integrated into our lives.

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Our "Customer of the Future" report gives an insight into what the future may hold. It is a future not based on science fiction, nor a particularly bold perspective on technological influence. "Customer of the Future" is a sketch of a future in which technology enables our freedom, enhances our intelligence, and gives us greater confidence in and control over our daily lives. To realize this future, sensitivity in technology is vital.



We propose five sensitivities in particular that technologies need to account for. For each we suggest three ways technology can respond.

Sensitive technologies must ...

01 Welcome me

02 Reassure me

03 Protect me

04 Connect with me

05 Be good for me

Welcome me



First impressions can make or break. Sensitive technologies feel easy and rewarding.

We judge fast. It's then hard to change our minds. One study found we can form a lasting impression in just 100 milliseconds.^{†1,2} And because we default to the easiest way to get from A to B,³ first impressions can define success for a new technology trying to enter our lives, especially when competing against more familiar ways to accomplish the same outcome.

If making a digital payment is not immediately intuitive, we may revert to the safer option of a bank branch. If ordering a taxi through an app is confusing, we may stick a hand out and hail a cab.

The good news is that if customers engage early on with an initial action, however trivial, they become more willing to take a next action.^{‡4} When designed with this in mind, people will make technology a more meaningful part of their lives.

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Psychologists investigated how long it takes for a stranger to judge a person — on attractiveness, likability, trustworthiness, competence and aggressiveness — based on looking at pictures of their face. They found that it takes just 100 milliseconds to form an impression of somebody. Looking at the photos for longer didn't significantly affect the results.

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Big commitments sometimes require smaller ones first. Experimenters knocked on the doors of residents of a neighborhood in Palo Alto, California. They said they were from a nonprofit and asked if they could display a large and intrusive billboard in the homeowner's front garden asking people to drive safely. Only 17 percent agreed. Experimenters then repeated their experiment in another comparable neighborhood, this time asking homeowners to display a small three-inch sticker carrying the same message as the billboard in their window. Almost all the homeowners agreed. A few weeks later they returned to the sticker-agreeable households and asked them about the giant billboards. This time, 76 percent of them agreed.

Make the right first impression

It's all about getting the right measure in the on-boarding moment. This may mean being friendly, professional, or even clinical if the situation calls for it.

Whatever the experience, it should match your customers' expectations and account for their insecurities. Voice, imagery and interactivity all contribute.

The meditation app Headspace, for example, anticipates some apprehension in its on-boarding process. For many, meditation is unfamiliar, or even intimidating. The app welcomes and encourages new users with friendly graphics, lines like "It's okay if you've never meditated before," and animated videos featuring a narrator with dulcet tones. Before you've even noticed, you're relaxed and ready to use the app along with a million other subscribers.⁵

Overcome the "first-time challenge"

Psychologist Gordon William Allport famously said, "effort, except in the area of our most intense interests, is disagreeable." We all know time flies when we're having fun but stands still when we have to put in effort.⁵⁶ If using something is an overly tasking experience, it can discourage us from persevering or trying again. And the first time we try something is often the hardest.

To overcome this "first-time challenge," friction and confusion must be minimized in new experiences. Make things intuitive, guide people where needed, but get them comfortable straight away.

The first conversation you have once you've on-boarded to Slack, a team collaboration tool, is not with a colleague, but with a chatbot. This not only gets you into a conversation immediately, but also allows the chatbot to talk you through the key features offered. Slack, and its bot, has successfully familiarized millions with its platform. It now has 8 million daily users, 3 million of whom pay to use it.⁷

Bring me joy quickly

Whether we like to think it or not, most of us want instant gratification.*⁸ It doesn't matter how much your technology might benefit or engage people in the long term. If they don't feel some instant joy, you risk losing them.

Joy can come from many places: in discovery, in being understood, in achievement and more. Nintendo's Pokémon series has long been an expert in instant joy. The mission to "catch 'em all" is long, but it always begins with the immediate delight of catching your first and very own Pokémon. Before you know it, you've caught all 151. Pokémon Go was no different and saw millions go beyond that first catch, helping it break records for app revenue and downloads.⁹

But instant joy isn't just reserved for lovable computer games. Oscar, a health insurer with a mission to be centered around the patient, encourages its members to walk more by giving them \$1 back for each day they hit their walking target. It recognizes its customers' sensitivity to instant gratification and sets the target low to begin with, at around 2,000 steps, bringing joy quickly before increasing the step count over time to personalized levels defined by medical professionals. This is just one example of how Oscar's customer-centric approach has helped it grow to a valuation of \$3.2 billion in just six years.¹⁰

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Research highlights the dragging effect of effort. Participants were presented with either a blank field or a field with a three-letter word on it for a duration. Whether the field was blank or not changed participants' perception of time. Those that saw a blank field perceived they were shown it for a shorter period of time, compared to those that saw a field with a word in it. Time perception further increased when participants were asked to memorize the letters.

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In a revealing and perhaps too close to home experiment, participants were asked to choose what movie they'd like to watch today, in a week from now, and in two weeks from now. They were presented a list of movies — which unbeknownst to them were categorized into highbrow (e.g., The Piano) and lowbrow (e.g., Mrs. Doubtfire.) When choosing for two weeks from now, 29 percent chose a lowbrow movie. For a week from now, 37 percent did. But, when choosing for tonight, 66 percent did. When it comes down to it, we seek joy for our immediate selves.

Reassure me



We are averse to ambiguity and the anxiety it brings. Sensitive technologies bring us familiarity, certainty and confidence.

In a dark room, we move slowly. We are uncertain of what our next step may hold. Finding a familiar wall or a handrail can be enough reassurance to alleviate our anxiety.

In the same way, uncertain technology experiences are approached with trepidation. Will the glasses I've found online suit me? Is it safe to delete the pictures on my phone if they're in the cloud? Will my partner's present arrive in time? Anxiety even sets in when the technology we have grown accustomed to changes. Will I understand the next iOS? Where did my favorite feature go?

In the absence of reassurance, we often revert to the safe bet.⁺¹¹ We bring a friend to help choose our glasses, archive our pictures, and buy the present in-store. Or perhaps we never bother upgrading our software, missing out on the latest benefits to avoid the unknown.

Reassurance is important and powerful.⁺¹² And with it, we are more confident to take the next step.

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We prefer the known over the unknown. That is, we are ambiguity averse. Economics Nobel Prize winner Richard Thaler gives an example illustrating this aversion. Say you estimate that a certain football team has a 40 percent chance of winning its next game. You are then shown a number-generating machine that is known to have a 40 percent chance of showing a 1, and otherwise shows a 0. You are asked to place a bet either on the outcome of the game, or the machine. Which do you pick? Thaler predicts that in general, people prefer to bet on the machine where the odds are certain, illustrating an aversion to ambiguity.

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Surgeon and writer Atul Gawande, in his book Complications, highlights a fascinating study showing the power of reassurance. In a study of 500 patients undergoing dental procedures, those who were given a placebo injection and reassured that it would relieve their pain had the least discomfort – not only less than the patients who got a placebo and were told nothing but also less than the patients who got a real anesthetic without any reassuring comment that it would work.

Bridge the certainty gap

More and more, technology experiences aim to serve needs for which the physical world has great advantages. The physical world allows us to use our senses to touch, smell, weigh and more. These reassurances are in short supply in the digital world.

Sensitive technology aims to bridge this gap by bringing more of the certainty of the physical world into digital experiences.

Warby Parker, an online eyeglasses retailer, first let customers upload a selfie and do a “virtual try-on” to see how their next pair of glasses may look. Now it uses the facial mapping software on the iPhone X to recommend glasses based on face shape.¹³ It also offers a free home try-on service that ships five trial frames to customers to test their look in the mirror, with friends and family, or even with their expert advisors. Among many things, Warby Parker’s appreciation of the certainty gap helped it grow to a \$1.2 billion company, just five years after launching.¹⁴

Take small steps to relieve anxiety

Little touches can go a long way in providing reassurance.⁵¹⁵⁻¹⁷ Small comforts should be weaved into experiences where risk or uncertainty is involved.

Apple Mail whooshes to confirm an email is safely sent. Google Photos shows a tick in a cloud when all photos are backed up. DPD texts to say a package is on its way and lets you know it’s no problem to change the delivery time or place if you are not in. Uber tells you how long until your car arrives and shows it moving closer to you; once you are on your way, it lets you share your progress with the person you are driving towards. Such gestures are simple, but all reassure you that you’re achieving, or will achieve, what you want to.

Show me the way

Sometimes asking customers to leave all human reassurance behind and jump straight to digital can be too drastic a jump. Done well, human interaction can ease the transition to digital. For customers who are wary of giving online purchasing a try, Best Buy sales advisors complete in-store payments on the company's consumer website, standing side by side with the customer. This not only drives awareness of the online channel, but it also builds confidence with customers to use the website on their own next time.

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Small things can soothe us – whether consciously considered or not. Ambient odors of orange and lavender have been shown to reduce anxiety and improve the mood of patients in the ever-anxious dentist waiting room. Music playing during medical examinations cannot only help individuals feel less anxious, but also feel less pain. Even humor can help. We all know the stress of exams. Researchers have found that including humorous questions can help students feel less anxious about exams but also perform better.

Protect me



We are not always rational when it comes to fear. Sensitive technologies protect us from both real and perceived danger.

We all know someone who is afraid of boarding a plane but will travel by car without concern. You yourself may be one of those people. As humans, we are averse to loss,^{*18,19} assess risk on what most easily comes to mind,^{†20} and can overblow even small probabilities.^{‡21} So even if fear is statistically irrational, we can feel it strongly nonetheless.

As with incredibly rare plane crashes, our fears with technology can be exacerbated by vivid stories of personal data being lost or misused,

account details being stolen, or even parties damaging rented Airbnbs. When we rely on our “gut,” these stories can spring to mind and frighten us, inhibiting our willingness to use technology.

Being sensitive to irrational fears becomes just as important as protecting us from real danger.

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Our aversion to loss makes us risk averse. The godfathers of behavioral science, Daniel Kahneman and Amos Tversky, uncovered loss aversion through a number of choice scenarios. For example, let's toss a coin. If tails, you lose \$100. If heads, you win \$150. Do you take the bet? Mathematically you should. But most people don't. In fact, we dislike losses more than we like gains at a ratio of about 1.5-2.5 times. Overprotecting against loss is important for people to try new things.

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A famous 1978 study conducted by Sarah Lichtenstein and others asked subjects to judge the frequency of death from various causes. It found that whether someone had been exposed to a cause before, or how memorable or imaginable the cause was, influenced their estimation as to its frequency. For example, tornadoes were seen as more likely killers than asthma. In fact, the latter was 20 times more likely.

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Kahneman and Tversky also coined the term “possibility effect” to explain how we disproportionately weigh up outcomes that have a low probability. As they put it, a 5 percent risk that something bad will happen is considered much more than half as bad as a 10 percent risk. The “possibility effect” leads us to overweigh small risks and makes us willing to do extra to eliminate them altogether.

Infuse security

We don't like to acknowledge that risk is all around us. But at the key moments risk becomes salient, it's nice to know we're safe. That's why instead of beating security over the head, sensitive technology imbues experiences with security cues that we perceive without having to consciously consider them.

Google Chrome puts a small padlock in the URL bar, which is there for reference when you are unsure about a website's security. Apple transparently shows how it generates a secure touch ID for you, before asking you to use it with Apple Pay. T-Mobile's Scam ID shows callers as "Scam Likely" to deter you from answering — tacitly reassuring you every time it doesn't appear.

Make risk a nonissue

When it comes to engaging with technology, especially where the transaction of money or property is concerned, people require assurances that they are safe. Removing the prospect of loss is a powerful gesture.⁵²²⁻²⁵ No matter what happens, you are covered.

Airbnb provides hosts with peace of mind by covering them for damages up to \$1 million²⁶ — an extreme symbolic measure to get hosts to overcome the initial anxiety of handing over their keys to someone they've never met.

Make the space safe

Curiosity psychologist Todd Kashdan observed that for people to take risks, act on their curiosity, and experiment with new ways of thinking and acting, they need to feel they are in a safe space.²⁷

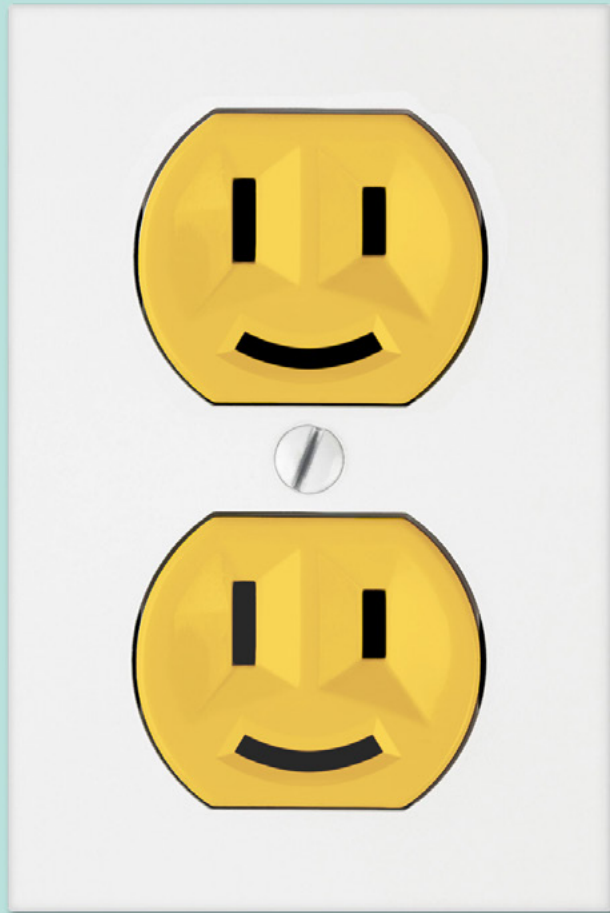
In the same way gymnasts leap into foam pits, pilots fly in simulators and doctors dissect cadavers, when risk is a part of an experience, sometimes we need a safe space to test, learn and familiarize without repercussions.

That may mean creating a risk-free zone like IG does in offering a demo account with a virtual \$20,000 to practice trading. Or shaping the core experience to feel safer. WhatsApp allows you to delete messages once sent. Revolut provides 24/7 immediate chat support to its banking customers. Apple allows users to shake to undo on their iPhone. Such features make customers feel safe to try things, make mistakes, ask questions and even take things back.

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We strive to avoid loss, and we do so in many different scenarios. Teachers paid a bonus up front, which could be taken away depending on student grades, led their students to perform better than teachers told they would get the bonus only if their students made the grade. Homeowners that expect to lose money on their property set 25 to 30 percent higher asking prices. Loss aversion even affects professional athletes. Golfers are more likely to successfully make a putt if it is for par (to avoid losing a shot) than if it is for birdie (to gain a shot). Tennis players put more effort into their serves when behind in the match.

Connect with me



Human subtleties are often lost in technology. Sensitive technologies can build connections by being understanding and even trusting.

Technology is increasingly replicating, even replacing, real-life experiences. We can bank without a branch, buy groceries without a supermarket, fine dine without a restaurant.

While this may mean things are cheaper or faster, the value in human interaction is often lost. We lose the connecting magic of human acknowledgment.*²⁸ We lose eye contact, which can help build trust.²⁹ We lose the warmth of the smiles of those who serve us³⁰ and the benefit of the smiles we give in return.³¹

The idea of forming a connection with technology can feel far-fetched, but it need not be. Every day, we trust technology with secrets we're unlikely to utter to anyone else. We are happy to ask Google "is it normal that my ..." when we wouldn't dare ask a friend the same.³²

We can even form bonds with and feel compassion for technology. In a study by MIT's Kate Darling, participants were given robotic toy dinosaurs. These dinosaurs could walk, tilt their heads, look over a high drop and shudder away from it. They felt real. Participants named their dinosaurs and completed tasks with them such as fashion shows. At the end of the day, the researchers asked the participants to destroy their dinosaurs. All refused. One even said they wanted to "spare it the pain."³³

Technologies sensitive to how their customers might want to connect with them go beyond the transactional and begin to touch on the personal.

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Researchers measured how people feel when other people acknowledge them. In the study, experimenters walked around a college campus and made one of three gestures to students: 1. looked through them without making any eye contact, 2. acknowledged them with eye contact, or 3. acknowledged them with eye contact and a smile. The students reported greater "feelings of connection" when they had been acknowledged, and even more so when acknowledged with a smile.

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People search for things they wouldn't usually ask or admit to. This has serious implications ... When President Obama was elected in 2008, it was the week with the highest searches — in the history of Google search — for racist material. It also has bizarre implications. Can you guess what, in India, is the most common search that starts with "my husband wants"? It's "my husband wants me to breastfeed him."

Consider my context

Sensitive technology should be aware of context and respond appropriately.³⁴ This means being attentive to information that can shape interactions for the better. Such information can range from more basic things like a customer's location, schedule or past preferences, to more complex things like their mood, energy levels or even whom they are with.

Amazon's digital assistant, Alexa, has a "whisper mode" allowing users to whisper commands to her as she whispers back in reply. In a room with a sleeping baby, it is natural to whisper, and for Alexa to do the same feels intuitive and considerate. It could also be the difference between a happy or grumpy child — and therefore the parents.

Be who I need you to be

We can appreciate and even love technology when it is friendly and warm, but this can also apply when it is simple and efficient. Sensitive technology anticipates and understands the mindset and moment a customer is in when using it. It recognizes character can be enriching, but also grating.

The British Airways app makes prominent, upon opening, the action it anticipates you have come to it for, whether checking in or accessing a boarding pass. All the while an alluring picture of your destination is in the background. British Airways shows it understands the need for efficiency in travel, but also the joy in anticipation of a journey. Citymapper, the transport app, majors in simplicity and intuition as it helps you navigate your daily commute in the shortest time possible. But it also sees the value of some light relief at these often stressful points of the day, offering travel times by jetpack, catapult and teleportation. The app, which has won high praise and a plethora of awards, serves 20 million commuters in 39 cities.

At the most basic level, understanding and anticipating what a customer needs your technology to be for them is the foundation of connection.

Take the leap of reciprocity

It can be differentiating to develop strong and deep relationships with customers. Reciprocity and trust are in our nature and, among many things, are core to developing such relationships.³⁵ When we receive, we give, and vice versa.³⁶

To build strong and trusting connections with customers, be the first to give the unexpected.

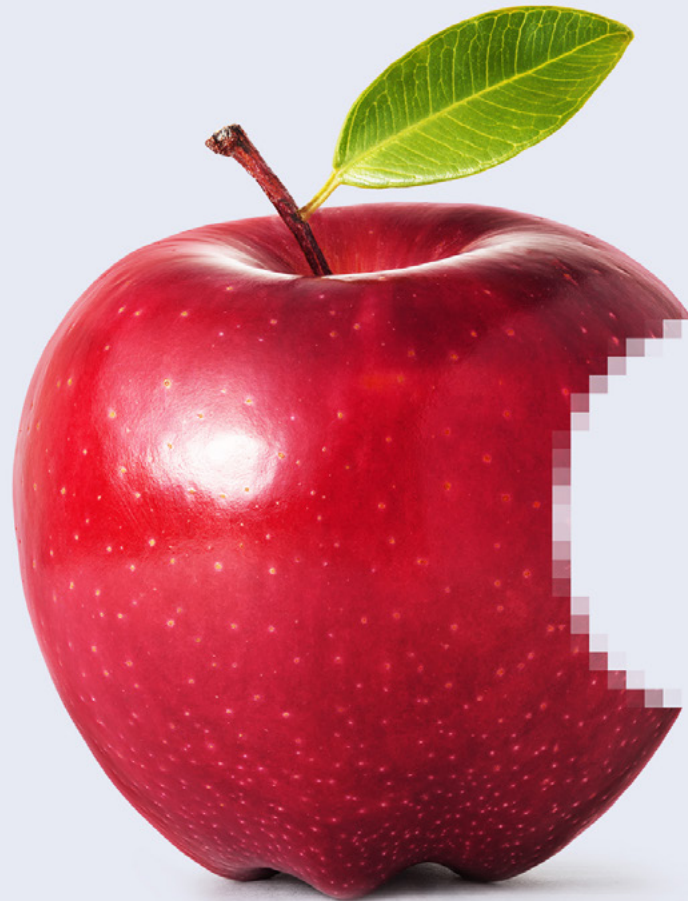
Lemonade, a digital insurer, is built on a pact of trust with its customers: it believes customers will make claims honestly, and so it approves and pays claims within seconds. To illustrate this point, Lemonade uses a story that has become part of its cultural fabric. Alan had his laptop stolen, and subsequently he had his claim processed instantly. A few days later Alan wrote to Lemonade to say his laptop had been returned to him, and that he wanted to return the money. As Alan said, he “didn’t think much of it ... it was the right thing to do.”

And it turns out this reciprocal approach works. Lemonade is an insurer loved by its customers and as a result has grown rapidly, making as much revenue in the first quarter of 2018 as they did in total in 2017.³⁷

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Joyce Berg designed the “trust game” to highlight our trusting nature and the role that reciprocity plays in accounting for the trust we extend to others — even when we don’t know them. To illustrate Berg’s trust game, let’s use Asha and Bob as our two players. Asha gets \$100. She can keep it all or send it to Bob. If she sends it, it is quadrupled, meaning Bob receives \$400. Bob then has the choice to keep it all or return half of it. Economists and mathematicians would advise Asha not to send it, and if she did for Bob to walk away with it all. In reality, Berg found that most people in Asha’s position send the money, and most in Bob’s share it.

Be good for me



Technology has a light and a dark side. Sensitive technologies focus on improving your life.

Technology doesn't suffer our human fallibilities. It is ceaselessly rational, has no emotions, doesn't rest, doesn't forget, doesn't lie, and can be there to keep us on track if we want it to be.

At its best, technology can be a unique and empowering partner for changing our behavior to make progress in life. At its worst, it can feel like it is preying on our weakest impulses. Too often we can become slaves to screens, algorithms and notifications.³⁸

Technology, depending on how it is designed, can undesirably take our time, attention and money.³⁹ It can adversely affect our mental health and our most important relationships.*⁴⁰ Being sensitive to these concerns is, perhaps, the most important thing of all.

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The mere presence of your smartphone is enough to reduce your cognitive capacity. Research has shown that it doesn't matter whether your smartphone is turned on or off, or whether it is lying face up or face down on a desk. Simply having your phone within sight or within easy reach reduces your ability to focus and perform tasks. This is because part of your brain is actively working to not pick up or use the phone.

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Researchers looked at how parents' use of technology affects their children's behavior and coined the term "technoference" for technology-based interruptions in parent-child interactions. Almost half (48 percent) of the parents in the study admitted to three daily incidents of technoference. Researchers observed that these seem to correlate with young children being more prone to whining, sulking, restlessness, frustration and outbursts of temper. Recognize those behaviors ...? They are the same ones found to be displayed by adults who are confronted with slow Wi-Fi.

Give me balance

Sometimes technology has more control over us than we do over it. We know we shouldn't watch that next video ... but autoplay is two seconds away. Now one second. Might as well watch it. There are many moments like this in which our self-control is overridden.

Instead of preying on their impulses, technology should be a force for good in customers' lives and equip them with the tools and information needed to maintain a healthy balance. That can mean simple controls on screen time, notifications, spam, or whatever else could potentially be having a negative impact on people's lives.

Google's "Digital Wellbeing" features provide small ways to control smartphone and app use. You can track how much time you spend on your phone, schedule YouTube "breathers" or ask the assistant to start your "Bedtime Routine," which sets an alarm, dims the lights, lowers your music, and gets you tomorrow's weather as you start to wind down.

There is real demand for such balance. The 2017 update of the brilliantly basic Nokia 3310 was launched with the proposition to bring users a "digital detox" — and has seen millions of sales, outstripping initial expectations. Start-ups are also seeing similar opportunities. The Light phone, with a black and white display, offers few essential tools, including calls, messaging and an alarm clock. To some this will sound like a step back in time. To others it will feel like progress. It certainly proved popular with crowdfunders, raising \$2 million in a matter of months, hitting 615 percent of its original target.⁴¹

Help me achieve

We all have goals we aspire to. But often our motivation alone isn't enough. Timely and intentional changes in our contexts, or nudges, can help.⁴²⁻⁴⁴

The opportunities to extend this thinking into technology are exciting and endless. Technology can spot that your mile splits are slowing and encourage you to the end of the marathon. It can suggest a lunch budget just before you walk into the restaurant, keeping you on track to saving for your next vacation. It can know when a reminder to get out of your chair and take steps towards your 10,000-a-day is most likely to work. And it's nearly always in our pocket, on our wrist or in our ears.

Duolingo, the language-learning platform with over 300 million users worldwide,⁴⁵ is famed for its ability to teach old dogs new tricks. At the core of its product is a personal "student model," which works out the optimal time to get you to practice certain words or phrases again. For every lesson, daily log-in and even correct answer, users get some kind of haptic, visual or auditory reward. And when you achieve a learning goal, you get a digital trophy that you can show off to your friends.

Show me and help me act

Technology can help you understand the impact of your decisions in a way you might otherwise not, by revealing the story your life's data tells. That story may highlight a dissonance you never realized existed — big or small, motivating or stressful.⁴⁶

If used with sensitivity and in combination with the right tools, such information can change lives for the better rather than cause strife.

Monzo, a UK digital-only bank that has grown to 1 million customers in just three years,⁴⁷ uses its data and technology to help customers who have gambling addictions. Monzo looks for patterns in data to spot gambling disorders. When Monzo spots a pattern and believes it is appropriate to intervene, it starts "a sensitive, tactful conversation" to find out what it can do to help. Monzo importantly goes a few steps further and helps customers break their addiction by connecting them with trusted sources of advice, and also practically gives them the option to apply a gambling block to their accounts. Just four months after this feature's launch it's seen 25,000 customers sign up or be suggested to the block service, with an average 70 percent decline in gambling transactions.⁴⁸

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We like our behaviors and self-beliefs to be in harmony. If our behaviors or beliefs don't match, we experience something Leon Festinger termed "cognitive dissonance." For many, our response is often to change our beliefs, to match our behaviors — instead of the other way around. For example, a smoker may know that their habit causes lung cancer but justifies it as a way to keep them thin or relieve stress, rather than quitting smoking. Helping people, like this smoker, change their behavior is the real challenge. Succeeding can have a truly meaningful impact on their life and those around them.

How do I make my technology sensitive?



Success comes from weaving human sensitivity into the DNA of how you design and deliver technology experiences. This requires a sensitive mindset throughout your team. From CEO through CTO, Product Owner and UX designer, all the way to intern, all should be able to confidently say yes to the question: Are we sensitive to how humans think, feel and behave?

For some this may already be the case. For others there may be further to go. For all, we have some practical steps to take in the immediate.

1

Immerse yourself

Immerse yourself firsthand in an eclectic mix of experiences in the technology zeitgeist to get a sense of what is sensitive, and what is not. From the exploding community of Fortnite to the calm of Headspace, there are lessons to learn about ever-changing customer permissions and expectations.

2

Audit your experiences

Audit your experiences for sensitivity. Make sure you are getting the basics right[‡] and focus in on your technology's key experiences. Whether a customer is on-boarding, making a decision or seeking support, where should you be providing immediate joy, relieving anxiety, easing fear, creating a safe space for exploration, giving the unexpected and more?

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The original heuristics (mental shortcuts), that people apply when using technology, created by Jakob Nielsen over two decades ago still apply today and are central to making experiences feel easy and intuitive.

3

Test continually

A significant portion of your technology should be in a test-and-learn state to understand how your customers behave. Find out what enhances an experience and uncover what backfires. Using the design directions outlined earlier, adjust the experience and run simple A/B or multivariate tests. Also consider exploratory tests in controlled conditions to understand what can shift the behavior of a customer.[§]

To help you apply these steps we have included a Sensitive Design canvas and a cheat sheet. Use these to enrich your new experiences and examine current ones.

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For example, in the world of finance, we have tested in controlled conditions how different current account structures can impact how people spend and save, and how different investment account on-boarding experiences — each with different sensitivities accounted for — change how much people are willing to invest. In both tests we observed actual decisions and behaviors giving insight into how customers can be expected to act.

As customers traverse an increasingly digital landscape, technologies centered around human thoughts, feelings and behaviors can stand out and realize their potential of being deeply integrated into our lives.

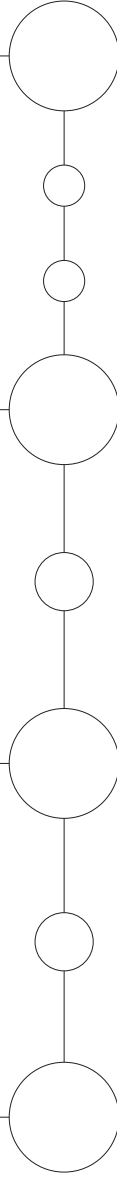
*It's time
to get
sensitive.*

Sensitive considerations: What thoughts, behaviors and feelings do we need to be sensitive to? (Refer to the cheat sheet to provoke ideas)

Reflect on what sensitivities you may need to be aware of.

The experience

This may be a single moment (e.g., an error message), a journey (e.g., getting support) or an end-to-end relationship (e.g., from on-boarding to exit).



Develop ideas to make your experience more sensitive. Take inspiration from outside examples or internal insights.

Sensitive response: How can we be more sensitive? What can we learn from others? (Refer to the cheat sheet to provoke ideas)

Key ideas

Pick your key ideas to test.

This canvas can be downloaded from our website.

Tests to be run

Summarize the tests to be done per idea.

How we'll know if the ideas worked

Define how the success of the tests will be measured.

Cheat sheet

Questions to ask of your technology:
first in the shoes of the customer, then in your own shoes.

Welcome me

- Consideration:** What makes the first time feel like hard work for me?
- Response:** How can we decrease friction or confusion? How can we bring joy?

Reassure me

- Consideration:** What uncertainties and anxieties might arise for me?
- Response:** What reassuring touches can we add? What real-world gaps should we bridge?

Protect me

- Consideration:** What real and perceived dangers might I be afraid of?
- Response:** How can we make people feel safe? Should we infuse or amplify security?

Connect with me

- Consideration:** What kind of relationship do I want with this?
- Response:** How can we be more context appropriate? How can we build trust?

Be good for me

- Consideration:** How will this make my life better (or worse)?
- Response:** How are we acknowledging the progress people want to make? How are we promoting actions to achieve this?

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A wealth of research informed our conclusions. We are grateful to all those below for pushing the boundaries of their fields.

Welcome me

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