White Paper

In Pursuit of Digital Happiness

VINT | Vision • Inspiration • Navigation • Trends

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Why Read This Report?

Digital Happiness is rapidly becoming the new frontier of competition. Enhanced by a customer centric mindset, it is experience and emotion that are today's differentiators. Technology empowers organizations to read these emotions, to persuade people with hyper-personalized touchpoints in response, and to directly impact their happiness. Parallel to this, the behaviors of customers and employees are shifting towards that which elevates happiness and purpose, making the prudent use of this technology even more important. The advanced state of digitization today requires a holistic approach with the ultimate question in mind: do the product, service, and organization contribute to the Digital Happiness of the customer? Is your product or service superior to those of your competitors when viewed through this lens of Digital Happiness?

In this white paper we explore two key questions. First, how does digital technology impact our individual happiness? And second, what role do organizations have to play as guardians of the happiness of their customers and employees?

Key Takeaways

The Happiness Advantage

Happy customers are more loyal, make better references, increase an organization's profitability potential and enhance its employee's sense of purpose and confidence. That is why organizations with happier customers do better than their competitors and enjoy a happiness advantage.

Digital Technologies Influence Happiness

Research shows a strong impact of digital technology on happiness. That impact can only be understood through the coupling and decoupling powers of digital: digital is different. The emerging specialized field of Positive Technology identifies six digital happiness determinants: Autonomy, Compassion, Competence, Engagement, Meaning, and Relatedness. An organization that takes the Digital Happiness of their customer seriously, must take these factors into account in its decisions regarding technology investments.

Be(come) the Guardian of Your Client's Digital Happiness

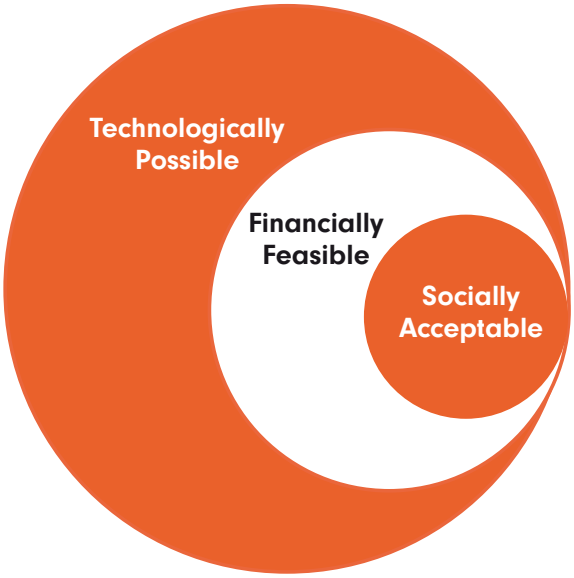
By clearly understanding the role you play in the Happiness Ecosystem of your individual customer, by designing a Digital Happiness Architecture around her, and by measuring Digital Happiness, you will build the trust required to become the guardian of your customer's Digital Happiness.

1 The Happiness Advantage

When happiness is moved up the agenda and digital has the power to contribute to it, what will be the verdict on your products and services? Are you contributing to the happiness of your customers and employees or are you diminishing it? Are you leveraging the Happiness Advantage, or are you merely seducing customers to your advantage? In this white paper, we will further examine the fundamentals behind Digital Happiness. Why is digital different from previous disruptive technologies? Can you hack your way to happiness? Who is leading the race towards the happiness advantage? And how do you become the guardian of your customers' Digital Happiness?

What Do We Want from the Digital Age?

With the exponential growth of technology and the rapid speed of the digitization of our world, powerful, disruptive technologies continue to emerge faster and faster. 'The future is now', 'Disruption is the new normal' and 'AI First' have become the mantras everyone is adopting. With each passing day, technology becomes less of a constraint on human imagination. Incremental innovation and breakthroughs coupled with pragmatic approaches are also now making those dreams financially feasible. Freed from the limiting factors of technical and fiscal realities, the discussion then shifts to the question of social desirability and acceptability. Put succinctly by Sherry Turkle, professor of Social Studies of Science and Technology at MIT: "What do we want?"



For Yuval Harari, Israeli professor and historian, it is crystal clear: people will pursue happiness. In his recent book *Homo Deus: A Brief History of Tomorrow*, he presents happiness as *the* main objective of humanity in the 21st century. Harari explains that technology, and specifically artificial intelligence, will ironically lead us towards a more human-centric society and economy. Luciano Floridi, professor of philosophy and ethics of information at Oxford University, has similarly argued that information and communication technologies (ICTs) are not as much about technology as they are about how they are reshaping human reality – which will lead to the human project. He further advances the proposition that offline or online is no longer a useful distinction: we are onlife. "We increasingly live in that special space that is both analog and digital, both online and offline. […] Imagine being asked whether you are online by someone who is talking to you through your smart phone, which is linked up to your car sound system through Bluetooth, while you are driving following the instructions of a GPS, which is also downloading information about traffic in real-time."[1]

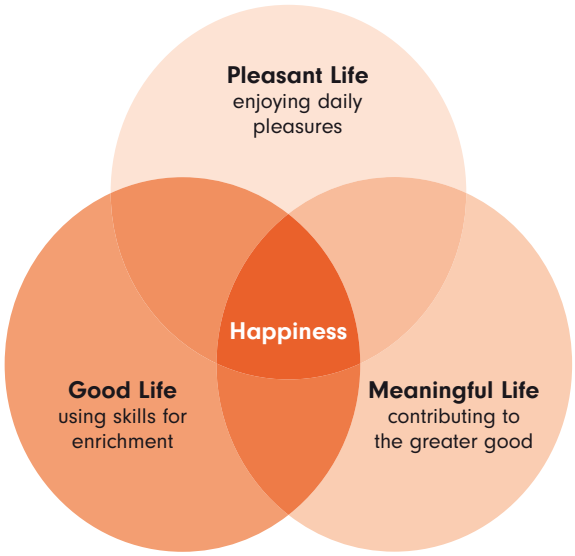
People recognize that digital technology has pervaded almost every aspect of their lives, be it shopping, following world events, forming an opinion, communicating with friends, organizing financial affairs, or even finding a life partner. But to what benefit, and at what cost? Arbitrary claims and opinions about the impact of technology are now making way for thorough scientific reports on the matter, including a longitudinal study on the effect of Facebook usage on wellbeing conducted by the University of Yale. This

study has found that the average user spends more time on Facebook than on any other daily leisure activity except for watching TV.[2] At the same time, the study shows that overall the use of Facebook is negatively associated with wellbeing.[3]

The reach of digital technology, strengthened by these emerging scientific insights, forces us to re-examine our perception of technology and its role in our daily lives. Beyond just gadgets or efficiency tools, digital technologies must be regarded as overwhelmingly powerful influencers that have major impacts on our quality of life, and therefore our happiness.

Digital Happiness: Pleasure, Flow, and Meaning

The specialized field of 'positive' psychology investigates human potential, virtues, and its effects. It is the scientific study of what makes people feel 'happy' and promotes exploring topics such as perseverance, love, optimism, and originality.[4] Martin Seligman, "the godfather of positive psychology," has published multiple books on the subject, building on the work of giants such as Sigmund Freud, William James, and Abraham Maslow. Seligman defines happiness as having three dimensions that can be cultivated:



1. **The Pleasant Life:** successfully pursuing the positive emotions about the present, past, and future.

2. **The Good Life:** using your signature strengths to obtain abundant gratification through activities you like doing in the main realms of your life, "getting into a groove or flow".

3. **The Meaningful Life:** using your signature strengths and virtues in the service of something much larger than you.[5]

Based on the notions of positive psychology, we can define Digital Happiness as follows:

Digital Happiness:

The degree to which a person views digital technology as contributing positively to the experience of positive emotions, getting into a state of flow, or having the feeling to live a meaningful life.

The Economic Advantage of Happiness

We could argue that we are already living in a happiness economy. One only needs to look at the abundance of "likes", ratings, and reviews on Booking.com, Uber, Google My Business and so many other platforms to understand the importance of happy customers. Jeff Bezos, founder and CEO of Amazon, emphasized this point when he stated: "If you make customers unhappy in the physical world, they might each tell 6 friends. If you make customers unhappy on the Internet, they can each tell 6,000 friends."

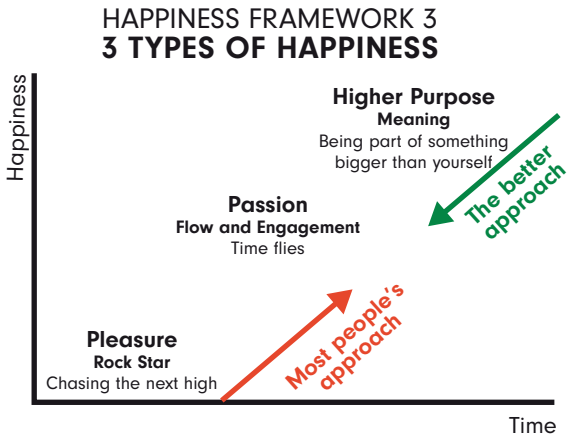
Take the recent example of United Airlines and the unhappiest customer in their history. When nobody volunteered to leave an overbooked airplane, a computer algorithm picked an unlucky passenger to be bumped involuntarily from the flight. The passenger

refused, resulting in a standoff between the company and one of its customers that quickly escalated into a situation where a 69-year-old man was dragged – bleeding and semi-conscious – off the airplane by local law enforcement. All of this unfolded in clear sight of other passengers that used their digital devices to share images and videos of the event online and in real-time. It took less than an hour for the news to circle the world. But how could this have happened, you might ask? One theory is that this event is a product of deeply rooted problems in the existing organizational culture of the airline and the engagement of its *workers and partners*. A recent study by the Temkin Group, "Employee Engagement Benchmark Study, 2016," has demonstrated a strong correlation between happy employees and a focus on the customer: "Customer experience leaders have 1.5 times as many engaged employees as do customer experience laggards."[6]

Forrester Research has been commenting on the "Age of Customer Obsession" for many years, highlighting extreme customer centricity as the only way to meet the rising expectations of the customer, newly empowered to switch to a competitor with a simple click, swipe or text. However, as the bar continues to be raised, moments of delight are degrading to nothing more than boring "must haves." We propose that the next step of "Customer Obsession" is putting the Digital Happiness of the customer first, demanding human-centric, not technology-centric, thinking.

Customers and employees are the same species, so it is no surprise that employees bring the same desire for happiness to the workplace. There is a compelling reason to take notice of this. Shawn Achor, author of the bestseller *The Happiness Advantage*, analyzed over 200 scientific studies on happiness and concluded that happy employees "have higher levels of productivity, produce higher sales, perform better in leadership positions, receive higher performance ratings and get higher pay. They also enjoy more job security and are less likely to take sick days, to quit, or become burned out. Happy CEOs are more likely to lead teams of employees who are happy, healthy, and find their work climate conducive to high performance."[7]

One of the companies that took such scientific findings to heart is online e-tailer Zappos. Their CEO, Tony Hsieh, is well known for his commitment to company culture and is an advocate for self-organization in a so-called "Holacracy" (as we explain in our report The Unorganization.[8]) In his book *Delivering Happiness*, Hsieh states that delivering happiness and maintaining a successful company can be the same thing.[9] Happy employees are loyal employees with higher productivity, and happy customers are loyal customers. He explains his approach through his "Happiness Framework," which is not surprisingly very similar to Seligman's concept of happiness. Zappos leverages social media as the key digital technology to create happiness. They aim for real, personal social conversations and stories, shared by both employees and customers alike.



Significant concepts within the definition of Digital Happiness are "meaning" and "purpose." Aaron Hurst, CEO of Imperative and author of the book *The Purpose Economy*, places a strong emphasis on these concepts. Hurst explains that a new economy, a so-called purpose economy, is quickly emerging in response to the growing demands and needs of people and the planet. Hurst sees clear signs of a purpose economy in trends like the sharing economy, the maker movement and the high value of experiences versus buying more "stuff." Hurst claims the theme these trends have in common is "purpose" and sees the quest for a higher purpose as the new driver of the economy. This correlates with serial entrepreneur and angel investor Salim Ismail's find-

ings, published in his book *Exponential Organizations*. His team analyzed the 100 fastest growing organizations and synthesized their key traits. They discovered that every single company on the list had a massive transformative purpose. Elon Musk's SpaceX is a good example. SpaceX's massive transformative purpose is that humans must become a multi-planetary species. It is something to believe in, to work for and be inspired by.

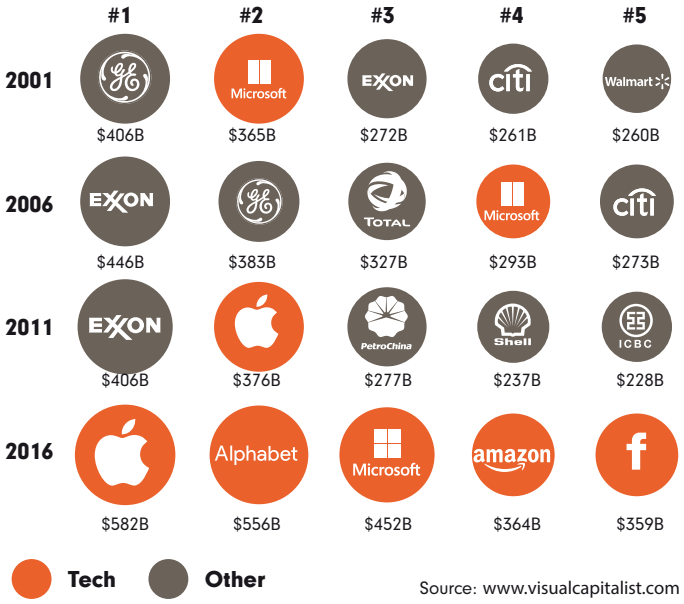
The Power to Foster Happiness

Customer ratings allow a company to be reactive to its customer's (un)happiness. Technology empowers companies to react in real time to its customer with innovations like cognitive APIs, emotion recognition, and sentiment analysis. These technologies offer the promise of insights into the real inner feelings of the customer. Expectations for this "happiness measurement" market are very high: it is estimated that the "affective computing"[10] market will grow from $12.2 billion in 2016 to $53.98 billion in 2021.[11] Combined with data-driven, hyper-personalized marketing and persuasive technologies, companies now have the power to really "move" customers: to directly read and influence their emotions and state of mind. Customers of the future are not just asking for more efficiency, they are also asking for more happiness. Is your customer experience differentiating, and is it making your customers happier?

2 Why Digital Is Different

Technology is and has always been intrinsically disruptive, but digital technology seems to be extraordinarily good at turning our world upside down. It is clear that in this day and age, digital has become one of the dominant technologies. In the last decade, we saw a tremendous shift in the world's most valuable publicly traded companies, where big oil and multinational conglomerates were overtaken by technology companies Alphabet, Apple, Amazon and their peers.[12] Why is digital so powerful and different from previous disruptive technologies?

Top 5 Public Traded Companies (by Market Cap)



Source: www.visualcapitalist.com

The Capability of (De)coupling

Luciano Floridi, the philosopher at Oxford University we mentioned earlier, argues that it is the capability of digital technology to decouple and couple, bundle and unbundle, cut and paste, and glue and unglue that sets it apart from any other technology. Location and presence, for instance, are decoupled thanks to digital technology. At the same time, producers and consumers are coupled in "prosumers": a person who consumes and produces content through (social) media. Decoupling reality from virtuality results in Virtual Reality, while coupling both results in Augmented or Mixed Reality. Or think of the disruption resulting from decoupling asset usage and ownership, as demonstrated by Spotify, the broader sharing economy, and "as a service" business models. Yuval Harari further addresses examples of decoupling in his book *Homo Deus*. He writes about the "Great Decoupling," pointing to the decoupling of intelligence and consciousness with the emergence of Artificial Intelligence. The power to couple and decouple opens a complete new range of possible outcomes, such as new designs of products, systems, businesses, and societies that where previously unimaginable.

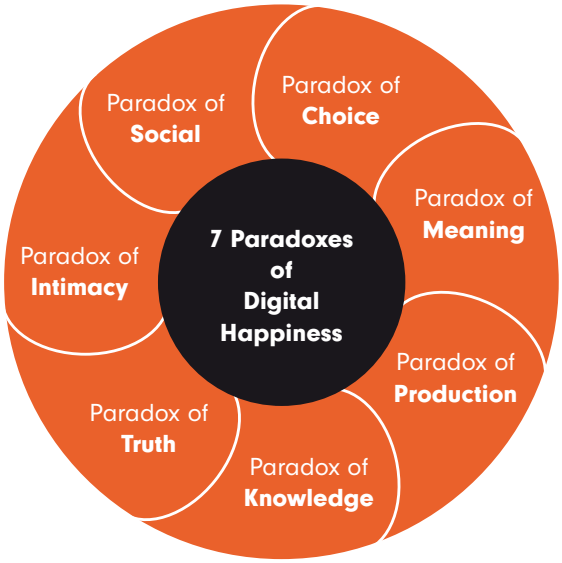
The Inability to Deal with (De)coupling

The possibilities of (de)coupling create a world that is hard to understand with the more primitive parts of our brains. In pre-historic times, when you *saw* a threat, there really *was* a threat, and you'd better fight it or flee from it. The stress of the threat helped us to get our brains into fighting or fleeing mode. Stress was impermanent and critical to survival. Modern times are different. For example, never before did we have the ability to separate location and presence. Today we experience events at the other side of the world so vividly that we're constantly under stress. This is one of the major points psychiatrist and Professor Dr. Witte Hoogendijk addresses in his book *From Big Bang to Burnout*. He explains that the part of our brain that reacts to stress, our fight-flight response (or as he calls it our "fish-brain") is antiquated and inadequate in these digital times. According to Hoogendijk, we are all imperfect products of evolution, and the high stress levels we experience in our digitized society are a case in point. Hoogendijk maintains that many of our modern stressors, the things that trigger our fish-brain and cause stress, are abstract, inevitable, and mostly

beyond our control. We are simply not wired to deal with these kinds of stressors, so we experience higher levels of stress and are more easily distracted by these new powerful stimuli. We need to recognize our obsolete stress system and redesign our digital technology accordingly, not the least because research shows that stress-related illnesses like depressions will become the leading cause of missed healthy years by 2030.[13]

The 7 Paradoxes of Digital Happiness

It is for these exact reasons – coupling and decoupling – that digital technology enhances or diminishes happiness in our lives. Ordering an Uber puts a smile on your face as you can see the car approaching through your app. It removes stress about whether the car will show up. The experience is carefully crafted to elevate the customer's Digital Happiness. Digital technology can be wielded irresponsibly as well, making customers unhappy. Notifications can be helpful, but can become a nuisance and destroy your "flow". There are many choices to make, dilemmas to face and paradoxes to resolve. The unique and complex characteristics of digital technologies are therefore best demonstrated by these 7 paradoxes.



- **Paradox of Social**
  Digital has created the ability to virtually socialize with friends wherever we are, but also while physically being in the company of other friends. This paradox is the subject of Sherry Turkle's book *Alone Together: Why We Expect More from Technology than from Each Other*. From research we know that close relationships and socializing are two of the key contributors to human happiness. Constantly looking at your smartphone instead of into the eyes of someone right in front of you will diminish close relationships. Are your digital services creating more close relationships or are they destroying them?

- **Paradox of Choice**
  Digital technologies enable us to shop 'til we drop across all the world's web shops. But research has shown that when confronted with too many choices, our happiness unexpectedly drops; too many choices make us wonder whether we made the right decision. This phenomenon is described by sociologist Barry Schwartz in his book *The Paradox of Choice: Why More is Less*. Sandra Matz, a computational social scientist, argues that highly personalized marketing brings an answer to the paradox of choice: let an algorithm analyze your customer and let it choose for them. The more accurate the better, since people will get happier from purchases that better match their personality.[14] How can you take the paradox of choice into account when designing your products and services?

- **Paradox of Meaning**
  The rise of artificial intelligence, replacing the need for human intelligence, can lead to a meaningless existence. Leading a meaningful life is, as we've seen, an important prerequisite for happiness. Robots taking over a job you highly value, which gives your life meaning, diminishes happiness. But an AI-enhanced dermatoscope coming from the Stanford Artificial Intelligence Laboratory adds meaning (and happiness) to the life of the dermatologist using it. How can you foster an AI-first strategy while maintaining meaning for people?

- **Paradox of Production**
  Coupling consumption and production sheds a new light on the role of the consumer. The concept of prosuming is basically what we witnessed until the industrial age separated labor and capital. Parallel to prosuming we see a decoupling of ownership and usage in the sharing economy, a movement that seems to contribute to meaning and purpose. A recent MIT Study (in collaboration with Capgemini) shows that customer participation contributes to more customer happiness. Do you invite stakeholders and customers to participate in the production of value?

- **Paradox of Knowledge**
  Internet provides us with an enormous source of free information. But do we actually acquire more knowledge? In his book *The Shallows: What the Internet is Doing to Our Brains,* Nicholas Carr makes the case that technology is inducing an intellectual decay in our brains. We are overstimulated by links, pictures, and a general information overload. This results in less long-term memory storage and "we become mindless consumers of data." How will this affect the depth of our relationships and our happiness?

- **Paradox of Truth**
  Satellite images, roadmaps, open source initiatives and social media make it easy to find answers. The same technology provides enormous opportunities to backup every story with false pictures, videos, misinformation, false evidence, and "fake news". Combined with information overload, some people argue that we are living in a post-truth society leading to less engagement, widespread cynicism, and nihilism; everybody leads their lives in their own filter bubble that is only confirming their existing values and beliefs. If the truth is out there, it is buried as a needle in a haystack of "alternative facts." What does this lack of authenticity mean for the business you conduct?

- **Paradox of Intimacy**
  Digital technology that knows you better than your best friends can create moments of delight, but also "creepy", "uncanny", feelings and privacy violations. Take for example electronic billboards with facial recognition, which change their ads depending on your gender, age, state of mind, and emotions. Is this manipulation of the customer, or a wish to add value to her life? We want technology to become an extension of ourselves, but we don't want to give up privacy, self-control, or the ability to choose freely. What are you doing to keep the balance between persuasive technologies and free choice in check?

The 7 Paradoxes illustrate the dilemmas that need to be faced when aiming for digital happiness. A delicate balance is required and technology choices become bigger than platforms – they become moral and ethical decisions. Digital is an all-embracing web of conflicting values and (maybe unintended) consequences. Within this complexity, how can we actually hack happiness?

3 Hacking Happiness Through Positive Technology

As we discussed earlier, positive psychology is the science that investigates what makes people happy. What are some of the findings of this discipline? And how to address them in de Digital sphere?

Activity	Time spent (hours)	Net affect
Intimate relations	0.21	4.74
Socializing after work	1.15	4.12
Dinner	0.78	3.96
Relaxing	2.16	3.91
Lunch	0.52	3.91
Exercising	0.22	3.82
Praying	0.45	3.76
Socializing at work	1.12	3.75
Watching TV	2.18	3.62
Phone at home	0.93	3.49
Napping	0.89	3.27
Cooking	1.14	3.24
Shopping	0.41	3.21
Computer at home	0.46	3.14
Housework	1.11	2.96
Childcare	1.09	2.95
Evening commute	0.62	2.78
Working	6.88	2.65
Morning commute	0.43	2.03

The results from Kahneman's happiness research. Activities are listed by their net affect: the influence of the activity on someone's happiness.

A 2002 U.S. study conducted by Nobel prize winner Daniel Kahneman examined day-to-day activities and how they impacted our happiness. People rated their feelings while engaged with these activities: how happy did they feel during shopping? How angry, hostile, worried, or friendly did they feel during lunch? The activities were stack-ranked with the happiest activities on top. Surprisingly or not, the results show that "working" dangles at the bottom of the list between being stuck in rush hour traffic on the way to and from work. Intimate relations are a strong number one on this happiness list.[15]

With the 7 Paradoxes in mind, how can we use this knowledge to become leaders in enabling Digital Happiness? Luckily, we see a whole new research field emerging within Human-Computer-Interaction: Positive Technology, also called Positive Computing. It is the digital derivative of positive psychology and aims at designing technology to foster psychological wellbeing in areas such as pleasure, flow, meaning, competence, and positive relationships.[16]

Rafael Calvo is a Professor at the University of Sydney and one of the drivers behind this new research field. His book *Positive Computing: Technology for Wellbeing and Human Potential* (co-authored with user experience expert Dorian Peters) has a simple, but resonating, dedication: "For our parents and children. May the technology in our future help us all to be well, happy, and wise."[17] When aiming for digital happiness, Calvo and Peters state that it can be overwhelming to target wellbeing in general. Instead, they recommend targeting one or more of the following wellbeing determinants: Autonomy, Compassion, Competence, Engagement, Meaning, and Relatedness.[18]

Determinant	Enabler	Disabler
Autonomy	• Offering visualizations to understand and take control of things, e.g. spending. • Cross-platform solutions.	• Algorithms which present content without other options. • Too many options which cause inertia.
Compassion	• Making sure people are seen as humans, not as soulless actors in a process	• Letting emotion rule over ratio.
Competence	• Adjusting difficulty levels to a user's performance	• One size fits all solutions • Patronizing adjustments
Engagement	• Giving options to control push-notifications and other disturbances.	• Platforms that continuously scream for a user's attention in the same high alert way.
Meaning	• Relating goals in digital media to "in real life" goals, e.g. using a banking app to save for a family vacation.	• Asking users to perform actions without the context of meaning.
Relatedness	• Letting users create inner circles to concentrate value and reduce noise.	• Scattering information with no sense of priority.

The 6 wellbeing determinants from Positive Technology. How to create or destroy Digital Happiness?

Companies as Digital Happiness Engines

Now that we have started to understand Digital Happiness and the value of focusing on its determinants, the question arises which companies have emerged as leaders in becoming digital happiness engines for their customers?

Lemonade, an Insurance Company with a Conscience

Lemonade is a peer-to-peer insurance startup based in New York. Seligman's Pleasant Life is fully addressed through Lemonade via optimal efficiency and effectivity: the company is claiming the absolute world record for speed of paying a claim, having paid a customer's claim within 3 seconds of filing it and with zero paperwork. Everything between signing up for coverage to filing a claim is automated and easily accessible through chat on your smartphone.

A customer files her claim for damages by posting a video that is immediately analyzed for irregularities by 18 anti-fraud detection algorithms in seconds, an important step for the insurer, since insurance scams add up to $80 billion of loss every year in the US alone[19] (losses that manifest themselves as premium hikes to the rest of us). Besides a reactive analysis on the customer's video claim, the company uses insights from behavioral psychology as a preventive nudge towards honesty. Lemonade has even taken the extraordinary step of hiring Dan Ariely, Professor in Psychology and Behavioral Economics, as their Chief Behavioral Officer. Ariely sees conflicting interests between traditional insurance companies and its customers: "Every dollar your insurer pays you is a dollar less for their profits. So when something bad happens to you, their interests are directly conflicted with yours. You're fighting over the same coin."[20] Lemonade wants to change this model by reserving twenty percent of the premiums to cover their costs and to make a modest profit. Everything else that isn't paid out in claims will be sent to a charity of the customer's choosing, which contributes to the feeling of meaning and being part of something bigger than oneself. An additional psychological benefit of this model is that customer maintains "ownership" of her premiums, which Lemonade expects to reduce fraud. Ariely's impact can also be seen in the aforementioned claim video message – claimants are asked to pledge on camera that they are telling the truth, another way to nudge people towards honesty.

So far Lemonade is doing pretty well, expanding their operations beyond New York to Illinois and California, and claiming as much as 27% market share for newcomers to the market in New York this year.[21]

Stitch Fix

Stitch Fix thrives on the insight that people get happier from purchases that better match their personality while simultaneously offering a solution to the paradox of choice.[22] They offer an online styling service and do the shopping for you; you just have to trust them. After filling an extensive form, detailing style preferences, clothing needs and price criteria, Stitch Fix's algorithms then pre-select a range of potential choices. One of its 3,400 stylists then selects 5 items for final delivery, fully customized to the individual's style. Anything customers don't like can be returned for free, but when customers decide to keep the whole package they receive a 25% discount. Eric Colson, formerly a top data scientist at Netflix, explains that data science allows them to sometimes know what customers like better than they know themselves. "Customers say, 'This thing you picked out for me, I would never have picked it out for myself.'"[23]

The retail landscape is undergoing a metamorphosis due to changing consumer behavior and expectations. Department stores are struggling and shuttering stores, while bargain hunting continues to happen online. As an online-only premium service founded in 2011, Stitch Fix has been profitable since 2014. For the fiscal year that ended July 2016, the company recorded sales of $730 million.

Nike+ Running App

With their free running and training apps, Nike reaches tens of millions of people. The smart running app needs two weeks to get to know your motivation level, your base speed, and your conditioning, and then offers a personalized training schedule. It uses a digital motivational coach who encourages you through your headphones when you are slowing down, and plays applause when you get a "like" on your running update on social media. Through this app, Nike improves its customer relationships and gets to study massive volumes of health data. It's an upwards spiral: 1) Nike gets to know the customer better, 2) Nike is able to offer better and more personalized products, 3) More people will use the product more often, 4) Nike harvests more data, and then back to 1 to repeat the cycle. One of the ways Nike uses this to their advantage is by making personalized videos highlighting the successes of their users. But as we have already seen in the 7 Paradoxes, it is difficult to determine the right balance. By the end of 2016, Nike was found guilty of privacy violations in their running app after an investigation by the Dutch Data Protection Authority (Dutch DPA) – Nike did not provide sufficient information to their users about the collection of their health data. In the new version of their app, Nike explicitly requests consent for the collection of health data, an increasingly sensitive topic made even more sensitive by the power of connected medical devices and distributed healthcare. While it is important for organizations to stay focused on a customer's Digital Happiness, they must also always question the consequences of their actions. Don't just do it.

4 In Pursuit of Digital Happiness

The pursuit of happiness – the human project – as articulated in this paper is a wake-up call. Go beyond customer centricity and you'll be able to experience the happiness advantage. Today's customer centric strategies are too passive and no longer enough for competitive success. You will find that happy customers are more loyal, make better references, increase your profitability potential and enhance your employees' sense of purpose and confidence. It might seem like a nuance, but focusing on the emotional state of individuals is more than building the services of your company around them. Technology's new capabilities – reading our emotional state, understanding what we want by knowing us better, and anticipating real-time on those desires – are setting the stage for the age of Digital Happiness. Understanding the paradoxes of digital will further guide you in your journey towards it.

Companies must step up and embrace insights from Positive Psychology and Positive Technology research to stay ahead of their competition, and meet the challenges of achieving the balance of all 7 digital paradoxes head on. They must always think from the individual's unique human perspective, considering their emotions, ecosystem and Digital Happiness architecture.

While we conclude our examination of Digital Happiness and wish you and your organization well in your pursuit of it, we give you three mantras to keep in mind on your journey: 1) design for Digital Happiness, 2) create a Digital Happiness profit and loss statement, and 3) become the guardian of your customer's Digital Happiness.

Design for Digital Happiness

More than anything else, Digital Happiness needs to be designed: its ecosystem, its vision, the bits and bytes behind it. By now it is clear that Digital Happiness is not window dressing on your existing business, it's the design of the customer's entire experience with their happiness in mind, driven by a unifying and noble purpose. There's no way a Chief Happiness Officer (they do exist) can drive success if values, culture, actions, and technology are not aligned. The Digital Happiness strategies of the organization should thus be foundationally rooted in the vision of digital architecture and its elaboration. Designing for Digital Happiness also applies to *your* organization. Is your organization prepared to make your customers' Digital Happiness your priority?

Measure Digital Happiness – A Digital Happiness Profit and Loss

Digital technology has the power – new, exclusive, and special power – to make us happier or unhappier. The instruments and levers at our disposal to create more happiness aren't a zero-sum game as we've seen before. To make things more tangible, it can help to create a Digital Happiness statement, and track it. Did your company actually influence your customers' happiness? In what ways? Both positive and negative? Our definition of Digital Happiness, the 7 Paradoxes and the following 6 base determinants can help you set up the foundation of your own Digital Happiness P&L.

Income/Revenue	Expenses
Sincere social media contact.	Angry or insincere public exchanges.
Helping users get into a "groove" or state of flow.	Distractions and over-engagement; people feeling intruded upon.
Making your higher purpose explicit.	Security breaches and privacy violations, undermining customers' trust and making them feel vulnerable.
Hyper-personalized messages that engage the customer	Creepy communications that give the feeling of espionage.
Real-time adjustments to emotions felt by individual customers.	Biased communications based on stereotypes.

Digital Happiness P&L: at what expense do you create digital happiness?

Be the Guardian of Your Customer's Digital Happiness

The markets are clear – the new frontier of competition is your customers' Digital Happiness. To compete in today's digital world, it is therefore critical to be thoughtful, responsible stewards of it. As the foundation of Digital Happiness, ensure that your organization is earning your customer's trust and working to hold it every day. To ensure continued Digital Happiness, build an organization attuned to your customers' individual needs, and be ready to respond to them. Create a culture of service ready to respond to inevitable failures, where your employees go the extra mile whenever you fail, and two miles when other actors in your customers' happiness ecosystem fail. Use the new abilities of technologies such as AI, Blockchain, and platforms to give pleasurable moments to your customer, to get them into the groove, experience flow, and contribute to their feeling of meaning in life. Drive your organization behind a unifying and inspiring vision of how your organization is making an impact on the world by raising quality of life, one person at a time. For it is one thing for customers to have one guardian of their happiness in an organization, it is another thing entirely for them to feel the support of an army.

We conclude this report by wishing you and your organization the best of luck in your pursuit of Digital Happiness. We look forward to hearing from you regarding the results of your journey.

Notes

1 University Center for Human Values, Princeton University (2017): "Luciano Floridi (University of Oxford): What Kind of Society Should the Information Society Be?", https://uchv.princeton.edu/events/luciano-floridi-university-oxford-what-human-project-our-information-societies

2 Watching television programs and movies takes an average of 2.8 hours per day: Stewart, J.B. (2016): "Facebook Has 50 Minutes of Your Time Each Day. It Wants More." *The New York Times*, May 5, 2016, https://www.nytimes.com/2016/05/06/business/facebook-bends-the-rules-of-audience-engagement-to-its-advantage.html

3 Shakya, H.B & N.A. Christakis (2017): "Association of Facebook Use With Compromised Well-Being: A Longitudinal Study", *American Journal of Epidemiology*, February 1, 2017; 185(3):203-211, https://www.ncbi.nlm.nih.gov/pubmed/28093386

4 Botella C., G. Riva, A. Gaggioli, B.K. Wiederhold, M. Alcaniz & R.M. Baños (2012): "The Present and Future of Positive Technologies", *Cyberpsychology, Behavior, and Social Networking*, February, 2012; 15(2):78-84.

5 In the following of this white paper we will use this definition when we are talking about happiness. Seligman states that the ideal balance of these three lives is unique for every individual. Other happiness definitions, such as those from Ruut Veenhoven and The World Happiness report 2017, often have a hedonic and meaning opponent.

6 Temkin Group (2016): "Report: Employee Engagement Benchmark Study, 2016", February 16, 2016, https://experiencematters.blog/2016/02/16/report-employee-engagement-benchmark-study-2016/

7 Achor, S. (2010): *The Happiness Advantage: The Seven Principles of Positive Psychology That Fuel Success and Performance at Work*. New York: Crown Business, p. 41.

8 Holacracy is also embraced by German Internet company Zalando and the Holacracy model looks a lot like the tribe and squad structure that ING Bank and Spotify implemented.

9 Hsieh, T. (2013): *Delivering Happiness: A Path to Profits, Passion, and Purpose*. New York: Grand Central Publishing.

10 Affective computing focuses on technology that can recognize, interpret, process, and simulate human affects. E.g. emotion recognition or a gesture based interface.

11 Markets and Markets (2017): "Affective Computing Market worth 53.98 Billion USD by 2021" (press release), http://www.marketsandmarkets.com/PressReleases/affective-computing.asp

12 Richter, F. (2016): "The Age of Tech", August 2, 2016, https://www.statista.com/chart/5403/most-valuable-companies-2006-vs-2016/

13 World Health Organization (2011): "Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level", December 1, 2011, http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_9-en.pdf

14 Matz, S.C., J.J. Gladstone & D. Stillwell (2016): "Money Buys Happiness When Spending Fits Our Personality", April 7, 2016, http://journals.sagepub.com/doi/abs/10.1177/0956797616635200

15 Kahneman, D., A.B. Krueger, D. Schkade, N. Schwarz & A. Stone (2004): "Toward National Well-Being Accounts", *AEA Papers and Proceedings*, May 2004, http://harris.princeton.edu/faculty/krueger/Toward%20Well-Being.pdf

16 Frontiers (2017): "Research Topic: Positive Technology: Designing E-experiences for Positive Change", http://journal.frontiersin.org/researchtopic/6202/positive-technology-designing-e-experiences-for-positive-change
Botella C., G. Riva, A. Gaggioli, B.K. Wiederhold, M. Alcaniz & R.M. Baños (2012): "The Present and Future of Positive Technologies", *Cyberpsychology, Behavior, and Social Networking*, February, 2012; 15(2):78-84.

17 Calvo, R., Peters, D. (2014): *Positive Computing: Technology for Wellbeing and Human Potential*. Cambridge: MIT Press.

18 Calvo and Peters made the cards freely downloadable at https://drive.google.com/file/d/0B3V3J4sRxQITU2tEYXNWNDloOFE/view.

19 Coalition Against Insurance Fraud (2017), "By the numbers: fraud statistics", http://www.insurancefraud.org/statistics.htm

20 Cohen, B. (2016): "Wait, what?!? New insurance company gives leftover cash to charity", September 21, 2016, https://www.fromthegrapevine.com/innovation/lemonade-insurance-dan-ariely
21 Schreiber, D. (2017): "Lemonade's Crazy Market Share", https://www.lemonade.com/blog/lemonade-insurance-crazy-market-share/
22 Matz, S.C., J.J. Gladstone & D. Stillwell (2016): "Money Buys Happiness When Spending Fits Our Personality", April 7, 2016, http://journals.sagepub.com/doi/abs/10.1177/0956797616635200
23 De La Merced, M.J. & K. Bennermay (2017): "A Wardrobe by Mail", *The New York Times*, May 11, 2017, https://blendle.com/i/the-new-york-times/a-wardrobe-by-mail/bnl-newyorktimes-20170511-27_1?sharer=eyJ2ZXJzaW9uIjoiMSIsInVpZCI6InRwZXBwaW5nIiwiaXRlbV9pZCI6ImJubC1uZXd5b3JrdGltZXMtMjAxNzA1MTEtMjdfMSJ9

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