

# 01/04 Digital Happiness The Happiness Advantage

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## Why read this report?

Digital happiness is rapidly becoming the new frontier of competition. New digital opportunities can make our lives easier, more efficient, safer, and more joyful. You may ask yourself where to begin and which needs to prioritize, but one thing is clear: only focussing on efficiency and effectivity is not enough anymore. Customers and employees are already two steps ahead by actually living in a happiness economy. They are becoming more selective when looking for happiness and a purpose, making the prudent use of technology an additional differentiator. Their findings and judgments are shared in reviews and ratings, giving helpful insights for shopping customers who need these happiness ratings. Enhanced by a customer centric mindset, it is experience and emotion that are today's differentiators. Technology empowers organizations to understand these emotions, to persuade people with hyper-personalized touch points, and to directly impact their happiness and sadness. Those who miss this societal trend will have a hard time winning the hearts of the customer and new employees. The advanced state of digitization today requires a holistic approach with the ultimate question in mind: what is the main goal of the products, services, and organization and how do they contribute to the digital happiness of the customer?

In this report we explore three key questions. First, what is the potential advantage of aiming for happiness? Second, how does digital technology impact our individual happiness? And third, what role must organizations play as guardians of the happiness of their customers and employees?

## Key takeaways

### Digital happiness: the competitive edge

The gap between what is already realized digitally and the remaining possibilities is big. This means there are still a lot of opportunities to better serve customers and employees. This is utterly important, since happy customers are more loyal, make better references, increase an organization's profitability potential and enhance its employee's productivity and sense of purpose and confidence. There is clearly a happiness advantage to gain, which is why digital happiness is becoming the new frontier of competition.

### 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. In that sense digital is different of other technologies. Without understanding the impact of these powers on people's happiness, every happiness strategy is doomed to fail. The emerging specialized field of Positive Technology identifies six digital happiness determinants which can help in such a strategy: 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 customer's digital happiness

By clearly understanding the role you play regarding the happiness of your customer, you'll know what to do. By envisioning, designing, and quantifying for happiness, you will go beyond customer obsession and build the trust required to become the guardian of your customer's digital happiness.

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# Introduction

A countryside retreat, a fireplace, comfortable sofas, an executive team, and no clear agenda. We were invited to this extraordinary setting to discuss the future of banking with a financial institution's management team. We already knew the team, the COO, the CIO, the Lead Architect, and the CTO from previous discussions. We had been in the room before. While boardroom members from all over the world visit the Singularity University in Silicon Valley to learn to "Think like Musk", we were thinking "What would Elon do when he was here?" We had a nice view over the park, old paintings on the wall, and books everywhere. The place was owned by dukes for centuries, then turned into a monastery 150 years ago, and nowadays functions as a conference center. It has championed reinvention and survived transformations in society for centuries. Here we were to discuss the reinvention of the banking industry. After half an hour of small talk, the discussion slowly took a certain direction. The COO raised his hand and said: "OK, we have the agenda. Let's discuss two key issues: autonomy and compassion."

## Becoming the guardian of digital happiness

This Executive Introduction is the first in a series of four reports about the new trend of IT-humanism that is part of our "In Pursuit of Digital Happiness" research project. At this stage, we interviewed more than 30 experts in this emerging field, organized two international conferences and held multiple executive dinners and workshops to discuss the importance of digital happiness in organizational strategies.

Does it make sense to discuss compassion and autonomy, basic human needs, while we could have talked about technology for the rest of the afternoon? We think it does. The two topics were familiar to us – they are part of the new Positive Computing trend: making humans more happy through the use of technology. We had just arrived back from Chicago, where we spent time with neuroscientists, behavioral experts, technology analysts, designers, body-hackers, and other independent thinkers to discuss the future of digital and how it could serve our human needs. Among them was Andrew Keen, sometimes referred to as the "Antichrist of Silicon Valley". He gave us a pre-reading copy of his new book. "Let me know what you think of it" he said, "It will be published in a few months". The book's title was *How to Fix the Future*, discussing digital things that needed to be fixed: a whole lot of them actually. Andrew's fixing goes beyond organizations. Society as a whole, digital infrastructure, and how organizations and governments treat our data needs is to be reinvented.

No matter how much needs to be fixed or reinvented, it has become clear that technology is not only about technology anymore. We have entered a next phase. We live in a world where literally everything can be coded. And anything that can be coded is becoming financially feasible. The only question that's left is about basic human needs. What do we truly desire? What are the new design principles that should guide us in this situation:

## #allyoueverdreamtoffcanbebuilt

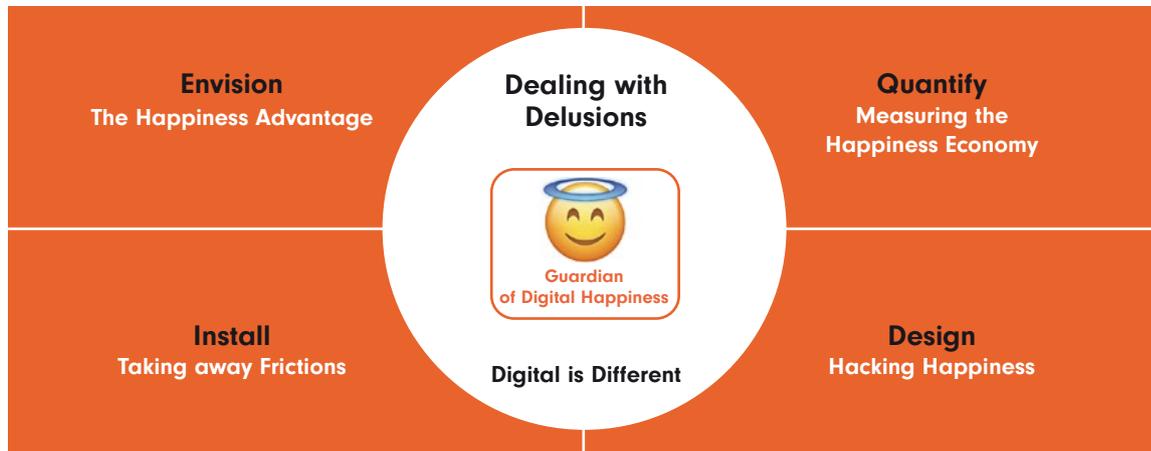
The discussion around the fireplace turned into an exercise of listing all kinds of “computer-says-no” situations. Could a good shot of empathy fix these situations and improve the life of clients and employees? The empathy solutions suggested varied from simple nudges to some clever system workarounds. The payback would be an increase in the net promoter scored, a metric to gauge the loyalty of a firm's customer relationships and their most important KPI. We were surprised to see how easy it was to turn these high-level design principles into a pragmatic plan. Satisfied with the work we did, we thought we deserved a beer. And while the discussion continued, the topics slowly turned into small talk again. Someone in the group mentioned her upcoming 50th birthday celebration; we discussed who was going to work on Sunday and who definitely wasn't; and who would take the kids to the hockey field. It suddenly became clear how easy it really is to be human and how simple improvements in ICT systems can benefit life.

### **From a fireplace chat to delivering digital happiness**

It is easy to come up with ideas, as we experienced during our fireplace session. But great ideas, in order to be implemented, need to be envisioned, quantified and designed. This shouldn't come as a surprise to you – it is nothing more than common (business) sense. Understanding what “digital” actually is, is less clear. The realization that digital is different from other technologies is an important condition for creating happiness. The hopes of society, your customers, and employees that digital will improve their daily lives have never been higher. But delusions and digital paradoxes can spoil the party. Your role as the guardian of digital happiness is to look one step ahead and guide your customers and employees through this foggy terrain.

## EQ-ID: four steps to digital happiness

**Envision, Quantify, Install, Design.** We took the acronym EQ-ID as a guide for our story, the chapters in the report, and as the underlying framework for action. This has much to do with the emotional intelligence of your company – getting better at listening to the voice of the customer, for instance knowing what truly drives their happiness. The identity of your organization as happiness guardians is a serious attempt to strengthen human relationships: The EQ-IDentity as illustrated below.



### Chapter 1: **Envision – The Happiness Advantage**

Closing the gap between your current digital reality and digital possibilities is part of the “Happiness Advantage”. A long-term vision, even a 300-year strategy for your organization, will be discussed here.

**Action:** **Fulfill the current digital (peak) hopes, and do it fast**

### Chapter 2: **Dealing with Delusions – Digital Is Different**

The specific characteristics of digital technologies – the ability to cut and paste, to decouple and bring together realities in life – are changing the very essence of our society. Many aspects of digital life are unprecedented and unforeseen. We need a better understanding of the whole landscape of digital impact, and this is an emerging and highly sensitive area.

**Action:** **Get the big picture: how digital is different**

### Chapter 3: **Design – Hacking Happiness**

Happiness starts with a good organizational and customer experience design. For designing happiness we'll present the design principles of *the school of today* and *the school of the future*. The future school is concerned about what technology might bring tomorrow while the school of today wants to immediately seize the opportunities for improving our current lives.

**Action:**        **Design for happiness and go beyond “customer obsession”**

### Chapter 4: **Quantify: Measuring the Happiness Economy**

Smiles on the faces of your customers do matter. Employees that go the extra mile, the flow of your organization, all these things matter. The fact is that we never measure them in the same obsessive way as we measure weekly sales or revenues per region. But science is catching up. Countries started measuring the happiness of their citizens, net promoter scores find their way into reports, measuring the advocacy of a brand is becoming popular, and so is sentiment analysis through social media. The message is simple:

**Action:**        **Start to measure beyond daily sales**

### Chapter 5: **Becoming the Guardian of your Customer's Digital Happiness**

Installing your happiness enhancers, and foreseeing and guiding your customers through the hopes and delusions of the new digital existence is key. Becoming the guardian of the digital happiness of all people using your systems is thinking one step ahead. Tendencies in society move towards these happiness fundamentals. We propose that the next step of “customer obsession” is putting the digital happiness of the customer (and employee) first, demanding human-centric as opposed to technology-centric, thinking.

**Action:**        **Become a happiness guardian: anticipate on the fundamental human needs**

# 1 Envision: The Happiness Advantage

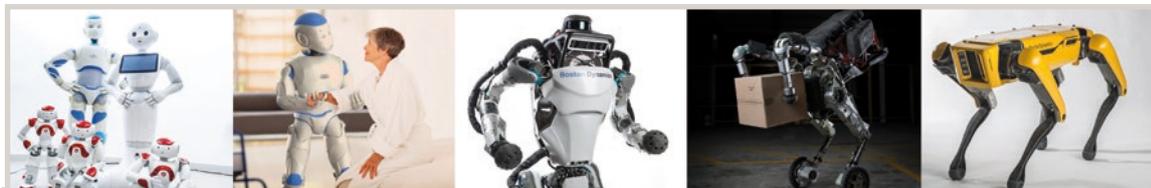
**“Whenever I feel lost, I look ahead, far ahead”**

**Masayoshi Son**

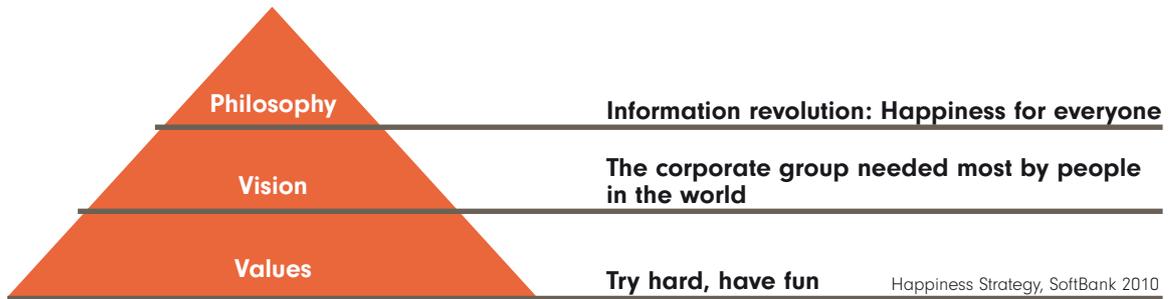
On June the 25th of 2010, Masayoshi Son, CEO of the Japanese SoftBank, presented his companies’ 300-year strategy based on its corporate philosophy “*Information Revolution – Happiness for everyone*”.<sup>1</sup> SoftBank, a multinational telecommunications and Internet corporation, is listed as the 39th largest public company in the world according to Forbes Global 2000 of 2017.<sup>2</sup> In Son’s vision, SoftBank’s reason for existence is to comfort people in their sorrow. Topics like death, loneliness, and despair are his sources for inspiration. SoftBank wants to become “The corporate group needed most by people in the world”.

“I want to increase people’s joy, to fulfill their need to be seen, to learn, and to build relationships”, is one of the highlights in Son’s talk about the future of his organization. The importance of focusing on the emotional and human state is something we strongly emphasized in our report series on machine intelligence<sup>3</sup>. And SoftBank is very much into machine intelligence and robotics. It is well known for its acquisition in 2015 of the French robotics company Aldebaran Robotics, creators of robots NAO, Pepper and Romeo. Both Son and Bruno Maisonnier, Founder & CEO of Aldebaran, see a logical fit between robots and SoftBank’s

vision. The event wasn’t only about the launch of a 300-year vision, it also was a party organized to celebrate a new version of robot Pepper. Maisonnier commented on that occasion that he has always believed that the most important role of robots will be – as kind and emotional companions – to enhance our daily lives, to bring happiness, to constantly surprise us, and make people grow. The fact that Pepper now can “read” emotions was presented as a new dimension in our lives offering new ways of interacting with technology. “It’s just the beginning, but already a promising reality” Maisonnier added, “Thanks to Pepper, the



Robots will play their part in the new happiness strategy of SoftBank. Besides Aldebaran Robotics in 2015, they also purchased Boston Dynamics in 2017 (previously owned by Alphabet). From left to right we see 1) Nao, Romeo, Pepper, 2) an artist impression of Romeo helping, 3) Atlas, 4) Handle and 5) Spot Mini.



At SoftBank there's only one company value: "Try hard, have fun". The famous anthropologist Johan Huizinga would have understood SoftBank's reasoning here. In his 1938 book *Homo Ludens* he defines the essence of all human beings as "being playful". Life is a game in which the Homo Ludens walks around and has fun. Happiness in that sense comes close to what Huizinga defined as essential in human existence.<sup>5</sup>

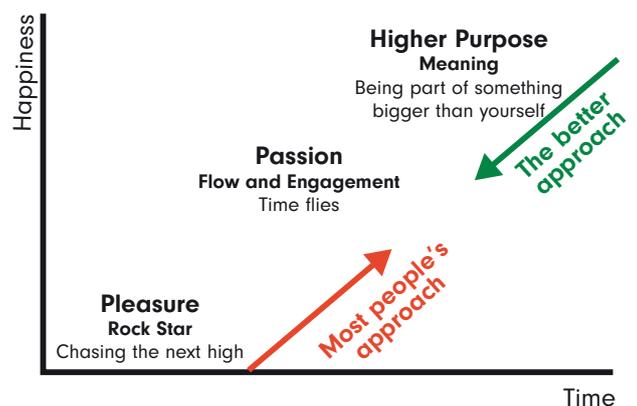
future begins today and we want all of you to be a part of it."<sup>4</sup> NAO, Pepper and Romeo have seen their first gigs in healthcare and as company hosts.

SoftBank is leading the pack with their (Digital) Happiness vision and strategy and are aiming for the moon. Besides robots they are also working towards a symbiosis between human-kind and computer and are heavily investing in companies that have similar future visions.

### Everything starts with a happiness culture @ Zappos

Another company with a unique happiness vision 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 explained in our report *The Unorganization*<sup>6</sup>). Zappos starts with a higher purpose and then works towards passion and pleasure. The company leverages social media as the key digital technology to create happiness. They aim for real, personal social conversations and stories, shared by employees and customers alike.

### 3 TYPES OF HAPPINESS AT ZAPPOS



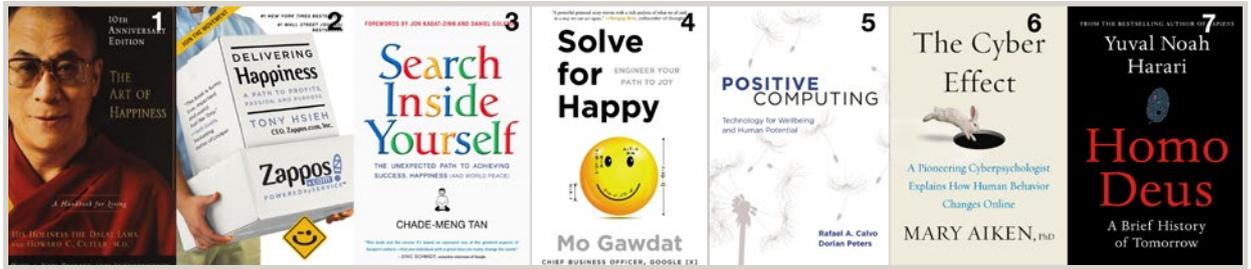
## Aligning interests @ Lemonade

A third case of envisioning comes from the insurance world. Perhaps you have heard about Lemonade, a peer-to-peer insurance startup based in New York. The company is claiming the absolute world record for speed for paying out a claim. They have paid a customer's claim within 3 seconds of filing it and with zero paperwork, partly thanks to eighteen anti-fraud detection algorithms. Besides their high-tech approach to the insurance industry, the company has an interesting vision regarding happiness: you can't create happiness for the customer if it isn't in your own interest. Dan Ariely, Professor in Psychology and Behavioral Economics, and Lemonade's Chief Behavioral Officer explains: "Every dollar your insurer pays you is a dollar less for their profits. So when something bad happens to you, their interests are directly in conflict with yours. You're fighting over the same coin."<sup>7</sup> Ariely suggests replacing the word "marketing" with the phrase "consumer well-being."<sup>8</sup> And since we're already playing a word game, we can easily add employee and planet well-being. In the end it's the happiness of the whole value chain which decides the happiness of humanity. Contracting behavior scientists like Dan Ariely can be a significant step in the realization of a "do the right thing" philosophy. Lemonade has the vision and mission to change this model of conflicting interests by reserving 20 percent of the premiums to cover their costs including a modest profit. So far Lemonade is doing pretty well, expanding their operations beyond New York to Illinois and California, and claiming as much as 27 percent market share for newcomers to the market in New York in 2017.<sup>9</sup> The previously discussed SoftBank recently invested \$120 million in Lemonade, aligning their own strategy with that of Lemonade.

## Riding the wave of (digital) happiness

Just a decade before Son presented his happiness strategy, happiness took off. Marketing and consumer specialist Dr. Alexandra Ganglmair-Wooliscroft calls it the H-market: "Most publicity for consumption products appeals (consciously or unconsciously) to our quest for happiness. The H-market is booming – as every marketer knows."<sup>10</sup> It all started with the books and speeches by psychologists like Martin Seligman on "authentic happiness", "well-being" and "eudaemonia". A new science was born late 20th century, called "Positive Psychology". While old school psychologists looked at people with mental problems to be cured – a negative view – this new school took the insights from psychology to improve everyone's life, a positive view. The popular media quickly jumped on the bandwagon: books, television programs and magazines on happiness followed. The trend spread quickly throughout culture, the economy and businesses. Human resource management introduced the "Chief Happiness Officer" (without much success, unfortunately). It appeared that it takes more than a fancy name on a business card to get things done.

Then, in the early 21st century, the economists started to measure happiness. The notion of Gross National Happiness (GNH) was first introduced by the government of Bhutan. This is an index that is used to measure the collective happiness and well-being of a population. The Gross National Happiness is instituted as the goal of the government of Bhutan in the country's constitution, enacted on 18 July 2008. In 2011, The UN General Assembly passed a resolution "Happiness: towards a holistic approach to development", urging member nations to follow the example of



Bhutan and measure happiness and well-being and calling happiness a “fundamental human goal”. And nowadays happiness (or sadness) can be found as smileys next to product placements everywhere on the internet. Expressing how we feel about a product or service has become daily routine: we are living in the happiness economy. Just recently computer science started noticing the importance of well-being and happiness. The lessons from positive psychology are now being applied in a new domain called Positive Computing. Safeguarding human happiness (the H-market) is booming, and it is unlikely it will disappear from the agenda ever again. With the power of artificial intelligence in mind, a “positive” approach to everything we digitize becomes essential, as we now can build anything we can imagine.

### What do we want?

So how did we end up discussing empathy and autonomy with the executive management of this financial institution in the old monastery we mentioned in the introduction? The whole idea about technology not being *the issue* anymore resulted from our recent research project on artificial intelligence. Our 25-year journey of analyzing the impact of new technologies boils down to one important conclusion: now it is different. We’ve built the digital infrastructure, society is connected, and artificial intelligence is now pouring into our highly automated economy. Digital is lifting society to another level. Some recent accomplishments:

Happiness as a theme is permeating the tech world. A brief selection of books shows the following:

- 1) The Dalai Lama (who visited Silicon Valley),
- 2) Zappos’ happiness culture,
- 3) The Google-born mindfulness training and philosophy “Search inside yourself”,
- 4) *Solve for Happy: Engineer Your Path to Joy*, a book in which Mo Gawdat, Chief Business Officer for Google X, sets the goal to make one billion people happy,
- 5) The scientific approach of digital happiness finds its roots in Positive Computing and
- 6) Cyber psychology,
- 7) *Homo Deus* contains futuristic forecasts by historian Yuval Noah Harari about our increasing happiness pursuit.

- *Learning breakthrough*: Deep learning algorithm AlphaGo learned how to play chess on a super human level in just 24 hours, without any assistance.<sup>11</sup> We’re getting closer towards generic thinking machines.
- *Performance breakthrough*: Chinese company Yitu Technology built a system called Dragonfly Eye that recognizes any person walking on the street within 3 seconds, out of 1.8 billion people in their database. Something like this was unimaginable ten or even three years ago.<sup>12</sup>
- *Economic breakthrough*: The number one determinate of economic growth in this decade is digital and to be more specific, artificial intelligence. Programmable intelligence will change our economy and society rapidly in the coming decades.

We can make this list as long as we want. It will all add up to the conclusion that there's an enormous amount of untapped digital territory ahead of us. Combining these new possibilities with age-old human desires is the new cutting edge. Freed from the limiting factors of technical and financial realities, the discussion shifts to the question of social desirability. Put succinctly by Sherry Turkle, professor of Social Studies of Science and Technology at MIT:

### **"What do we want?"**

For thinkers as Yuval Harari, Luciano Floridi, and Aaron Hurst the answer to "What do we want?" is simple: people want more happiness and purpose. In his recent book *Homo Deus: A Brief History of Tomorrow*, Israeli professor and historian Yuval Harari, 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. More human-centricity leads to design concepts like empathy and autonomy, exactly the values we talked about in the future of banking session.

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."**<sup>13</sup>

The clear distinction between digital and non-digital life finally can't be made anymore. And when that happens, what makes us digitally happy can only be expressed by the different life experiences, like in traffic, education, leisure, working life, family life and without using the word digital anymore.

A question still left to be answered is "What is Happiness exactly?" As we will see in the next paragraph, there are more dimensions of happiness. Everyone has his own opinion since we all are so familiar with it. We asked Luciano Floridi for his definition of happiness. He told us that happiness is the incremental fulfillment of hope, and even supplied us with a formula for hope:

$$H_{ap} \leftrightarrow D_{ap} \wedge B_{ap}$$

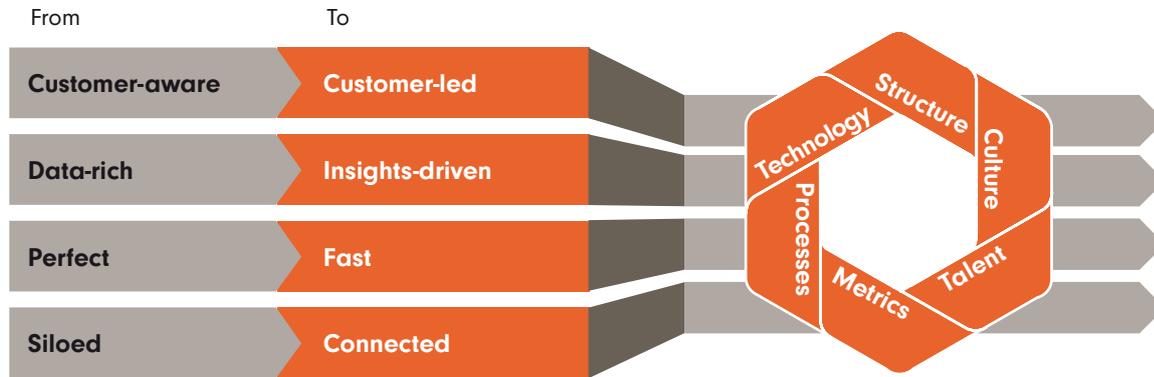
In this formula hope is the desire for what one believes is probable. H = Hope, D = Desire, B = Belief, a = attribute, the thing one hopes for, one desires, or one believes in, and p = the probability. This is in line with William James' perspective: "Our happiness seems to require that we have ideals, that we strive to achieve them, and that we think we are making some progress towards doing so."

Or simply put: Floridi's formula is the essence of consumer behavior and marketing. Marketers create the desires for, let's say, the new features on the smartphone by making us believe our lives will be easier, better, and so forth with that product. Fulfilling that hope, buying the product, and delivering upon that belief, would actually make people happier. So, what can we already learn from this somewhat unconventional definition of happiness and the status quo of digital?

- Beliefs in what technology can bring are strong. We are experiencing a digital "peak hope".
- Customers and employees will be knocking on your doors, asking for better digital services.
- Hopes don't live in verticals but spread horizontally across industries.
- Hopes can be based on an illusion (as we'll see in chapter 2) and create unhappiness.

## Digital happiness is going beyond customer obsession

The Dalai Lama XIV, often laughing or smiling, stands in a long tradition from Buddhists to philosophers who claim the purpose of life is happiness. In his book *The Art of Happiness* he predicts: "the very motion of our life is towards happiness."<sup>14</sup> The commercial derivative of this insight is old wisdom: making sure that customers are happy so that they keep coming back. One can say it's the basis for doing long-term business and it's evident that there is an economical advantage to be gained when aiming for happy customers and happy employees. This trend, the high focus on the customer and his or her happiness, is on the radar of many companies and is a prerequisite to becoming a leader in the digital happiness market. Forrester Research calls it the "Age of Customer Obsession", 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". When we asked George Colony, CEO of Forrester Research about the importance of happy customers, he gave us some clear figures. "Our research has shown" he said, "that companies with excellent customer experience and happy customers drive revenue at twice the rate of companies with poor customer experience and unhappy customers". Colony added that it's really about long-term happiness. For instance, their research shows that multiple companies that scored high on experience last year, dropped in scores this year, simply because the expectations of customers are continuously rising.



To become customer obsessed Forrester distinguishes four operational principles which overlay the six operational levers.

### What's required to become customer obsessed

Customer obsession needs to be reflected in your organization's structure, culture, talent, metrics, processes and technology. Forrester distinguished four operational principles to focus on when an organization wants to transform into a customer-obsessed organization: become customer-led, insights-driven, fast, and connected. If you are still facing challenges in your transformation, we advise you to watch George Colony's presentation at our Summit on YouTube or read the Forrester report *The Operating Model For Customer-Obsession*.<sup>15</sup>

### Digital Happiness

**The degree to which a person views digital technology as contributing positively to their experience of Positive emotions, Engagement, Relationships, Meaning, and Achievements.**

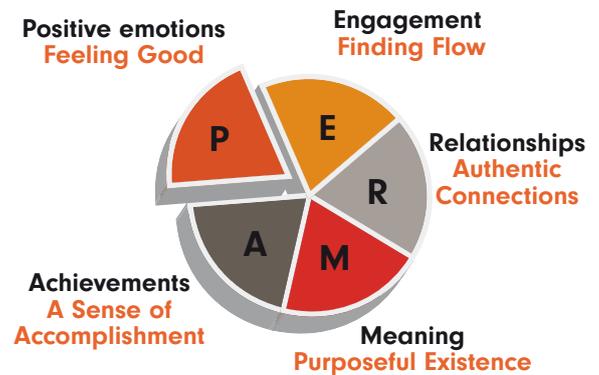
### Happiness defined

Customer experience and customer obsession strategies often focus on giving the customer positive emotions. This is a very good start, but it turns out that the experts define happiness as something more than only positive emotions. These happiness experts are part of a specialized field in psychology, called Positive Psychology. The field investigates human potential, virtues, and its effects. While thinkers as Schopenhauer and Freud thought the best we could ever do was to minimize our misery, positive psychology wants to build human "flourishing", "happiness", and "well-being".<sup>16</sup> This is a scientific study of what makes people feel "happy", and promotes exploring topics such as positive emotions, engagement, relationships, meaning and purpose, accomplishments, love, optimism, and originality.<sup>17</sup> Based on these insights we define digital happiness as *The degree to which a person views digital technology as contributing positively to their experience of Positive emotions, Engagement, Relationships, Meaning, and Achievements.*

As we already mentioned, there are many different definitions of happiness. Ruut Veenhoven, often called “The Happiness Professor”, and founder of the World Database of Happiness, states that happiness is an umbrella term for all that is good and denotes both individual and social welfare. He defines happiness as the degree to which an individual judges the overall quality of his/her own life-as-a-whole favorably. In other words: how much one likes the life one leads.<sup>18</sup>

A more detailed definition can be found by Martin Seligman, “The godfather of positive psychology”. He 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, or more precisely “well-being”, as a combination of Positive emotions, Engagement, Relationships, Meaning, and Achievements (PERMA). By focusing on these elements we can flourish in life and discover happiness.

Many other definitions, for instance from the Organization for Economic Co-operation and Development (OECD), have similar components and define happiness and well-being broader than just experiencing positive emotions.<sup>19</sup> These definitions are meant to describe happiness for everyone, but does happiness really mean the same thing for a French businessman and a Chinese nurse? International Well-being Researcher & Teacher Hein Zegers has asked the question “what makes you happy?” in more than 100 countries over the world. His findings show that in the end everyone has his or her own unique happiness recipe, but the more abstract you talk about happiness, the more similarities you will find, according to Zegers. The answers to the question: “What makes you happy?” always tends to resolve around other living beings.



**Martin Seligman, “The godfather of positive psychology”, identifies five essential elements to well-being: Positive emotions, Engagement, Relationships, Meaning, and Achievements. The elements are also known as PERMA.**

In *The World Book of Happiness* Zegers writes that in certain countries people automatically start talking about their family or village, for them “my happiness” overlaps with “our happiness”.

Other similarities on happiness ingredients are; satisfied about basic needs, the challenge of a job that matches your skills, physical and mental health, gratitude, positive feelings, stable, trusting and loving relationships, autonomy, freedom, a few disappointments, and last but not least: hope.<sup>20</sup> Positive feelings may differ from person to person, but nobody will describe happiness as feeling blue 24/7. Zegers’ key findings after 20 years of research are:

- 1** No matter where you’re from, other people are essential to your happiness.
- 2** Knowing and doing what makes you happy don’t necessarily go together. (For instance, a chain smoker may tell you that “good health” makes him happy.)
- 3** Averages from happiness studies may not apply to you.<sup>21</sup>

## The economic advantage of happiness

We suggest to go beyond customer obsession and focus not only on positive emotions, but also on contributing to engagement, relationships, meaning and achievements. This is not only an advice for the near future, since we could easily argue that we are already living in a happiness economy. Just take a 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, emphasizes this point when he states: “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.”

### (Un)happy customers

These exemplar 6,000 friends are easily surpassed in the aviation branch. “There’s no lack of unhappy airline customers”, says Forrester Research in their research on the upside of happy customers.<sup>22</sup> On average 50 percent of the customers reported to have poor to very poor experiences with airlines. This is despite

**After a decision from their computer made a customer unhappy (and the incident went viral), it probably became a bit harder for United Airlines to claim to have an excellent Customer Service.**

the fact that 2017 was the safest year in aviation history. Take the example of United Airlines and the “unhappiest customer in their history”. When nobody volunteered to leave an over-booked 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 view of other passengers who 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.

Forrester looked at the happiness advantage by industry. They calculated the extra revenue a company would realize when it improves the customer experience with one point on Forrester’s “zero to hundred” customer experience scale. The scoring is done by looking at two constructs. The first construct is the *quality of the customer experience*, which consists of the parameters “effectiveness of delivered value”, “ease of use”, and “emotion”. The second construct is the *customer loyalty*, with the parameters “retention”, “enrichment of purchase”, and “advocacy of the brand or service”.<sup>23</sup> The end sum of these parameters places a company in having a Very poor, Poor, OK, Good, or Excellent customer experience.

Sometimes, reducing the unhappiness of customers is a more important way to grow

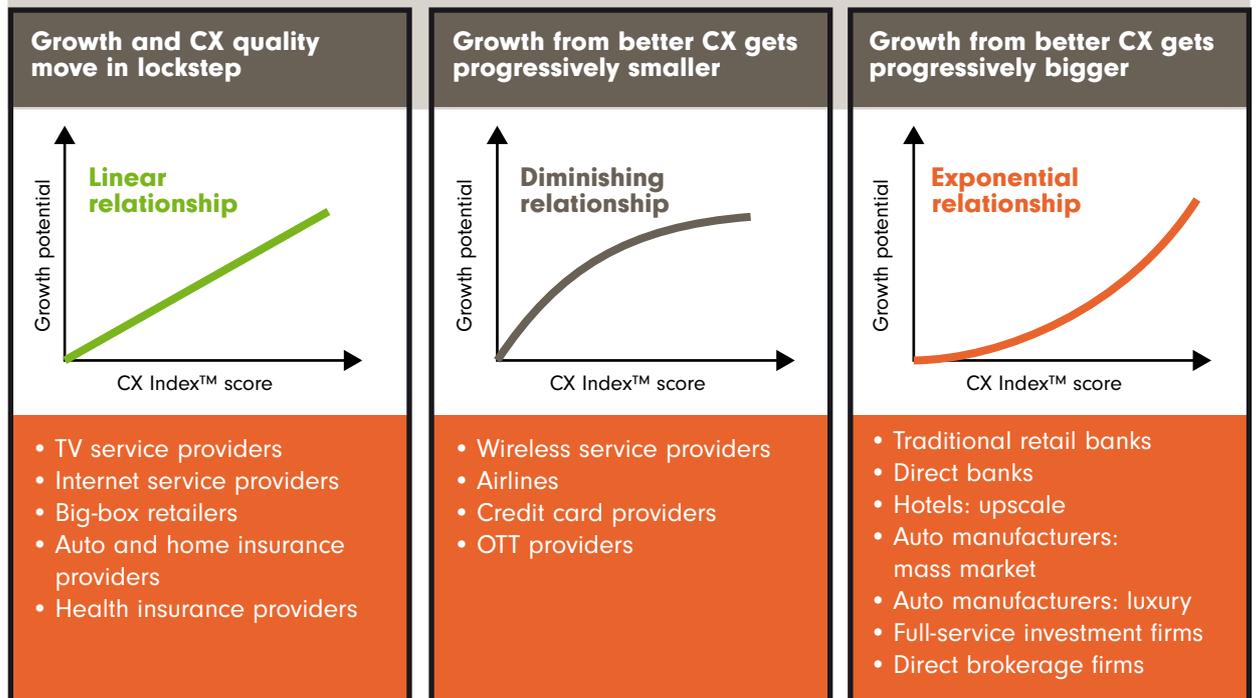


Forrester calculated the extra revenue a company would realize when it improves the customer experience with one point on Forrester's "zero to hundred" customer experience scale.

Industry	Extra \$ per customer
Auto manufacturers	\$ 48.56
Auto and home insurance providers	\$ 14.30
Direct Banks	\$ 9.89
Traditional retail banks	\$ 7.93
Hotels	\$ 7.55
TV service providers	\$ 6.11
Internet service providers	\$ 5.26
Luxury car manufacturers	\$ 4.18
Airlines	\$ 3.49
Wireless service providers	\$ 3.43
Big-box retailers	\$ 2.44
Rental car providers	\$ 1.67
OTT providers	\$ 0.37
Credit card providers	\$ 0.08

revenue. In the case of airlines, poor experiences lead to unhappy customers and unhappy customers tend to drive the customers in the hands of airlines that provide better experiences. Further findings show that improvements in the experiences of customers display different dynamics per industry. It can be linear, progressively smaller, or exponential. Each point up in Forrester's customer experience scale leads to exponential business growth in the case of hotels or direct banks for instance. Airlines as said, can specifically grow from taking away unhappiness. There's a diminishing relationship. Rental car providers and other industries move in lockstep.

Forrester's findings show that improvements in the experiences of customers display different dynamics per industry. The relationship between growth potential and customer experience can be linear, diminishing, or exponential.



## (Un)happy employees

Happy customers count, and so do happy employees. Shawn Achor, author of the best-seller *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.”<sup>24</sup> To give you some numbers: it has been found that people who are happy

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

## Is work making you happy?

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 at the 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.<sup>27</sup>

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

have 37 percent higher work productivity compared to people who are unhappy. Creativity quadruples with happy people showing 300 percent higher creativity.<sup>25</sup> Not surprisingly it has been reported that companies with a large number of happy people have higher earnings per share. 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.”<sup>26</sup> One reason for companies to appoint a Chief Happiness Officer – which is basically a HR Manager with a special qualification – is that he/she believes happy employees make better employees.

## Shifting from economics to eudaimonics

A contemporary view on happiness comes from Aaron Hurst, CEO of Imperative and author of the book *The Purpose Economy*. 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 (and many others) 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”. He claims that the common theme of these trends is “purpose” and sees the quest for a higher purpose as the new driver of the economy. Umair Haque specially coined a word for that transition: Eudaimonics. This is the Greek word for happiness and well-being. We already interviewed Haque some years ago on these trends.<sup>28</sup> He then talked about a general shift from “thin value” to “thick value”. Thick value meaning an economy directed by a higher purpose, doing good for us all. Now he talks about a shift from economics to *eudaimonics*,

especially relevant since the promise of AI and automation raises questions about the role of work and meaning in our lives. Umair Haque is an author and influential business thinker who recently founded Eudaemonia & Co, a consultancy company helping organizations apply happiness principles in business.

### Concluding bullet points

- Closing the gap between what is technologically possible and socially desirable, brings your organization a happiness advantage. It is a huge gap, given the current state of technology and the historical lack of focus on digital happiness.
- Happiness counts. Happy customers spend more, happy employees outperform.
- How to create a smile on the face of customers every day or how to get employees into a good groove so they can flourish, should be high on the digital agenda.
- Finding purpose and meaning in life, in organizations, in work and in products you buy, will contribute to happiness. Organizations that are able to add meaning to what they do and produce are profiting more from the happiness advantage.
- It is a rat race. Competition for happiness will be fierce, as desires can be fulfilled by any competitor.
- Those who disregard the essential human elements of pleasure, flow and meaning, are sailing against the wind. Happiness, the human project, is what will drive change in the 21st century.

## 2 Dealing with Delusions: Digital Is Different

A spoon, a shovel, a car, a train, spectacles, medicine, internet. These are all human-built artifacts, and while different in technology, are all useful instruments to improve life. Somehow we sense that digital is different from the other technologies on the list, but then it is difficult to exactly define what makes digital so special. This is an important question that needs to be answered. If digital is different, then digital could bring new dimensions to both sides of the happiness coin.

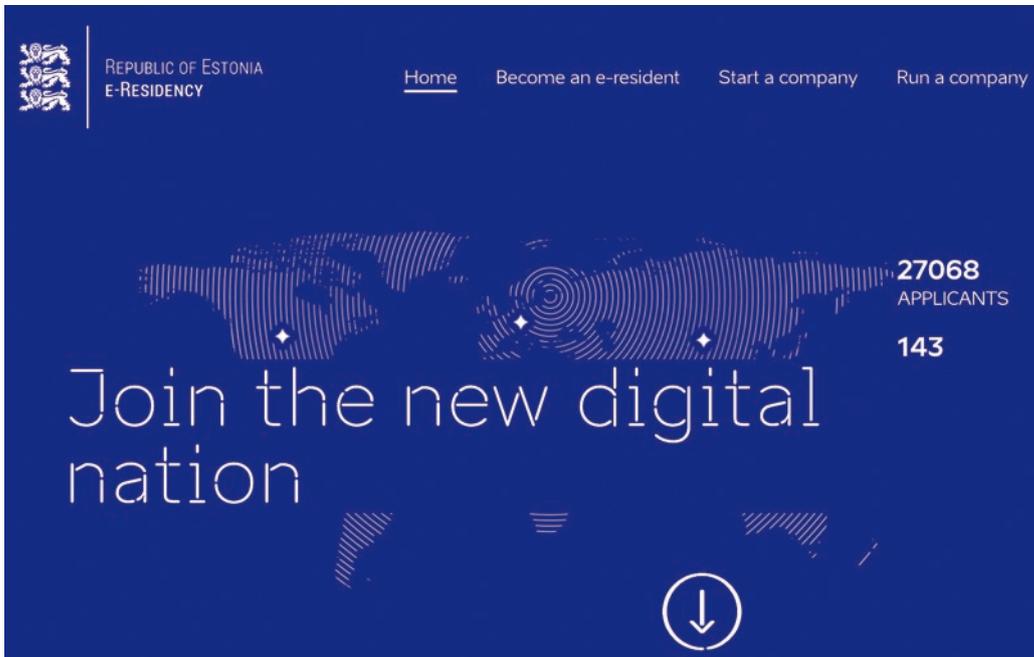
To find an answer to this question, we went back to Oxford and had an interesting conversation with Professor Luciano Floridi, who was mentioned earlier. “It is the capability of digital technology to couple and decouple that makes digital so special” was his immediate answer. “To bundle and unbundle, to cut and paste, to glue and unglue, that is the characteristic that sets digital apart from any other technology”. It makes sense. 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 at 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 were previously unimaginable. A few things we can already conclude:

### Explosion of combinatorial innovation

First of all, Digital drives an explosion of new innovations and new opportunities. As mentioned earlier, all you ever dreamed of can now be built. This is the so-called combinatorial innovation effect (a term coined by Google’s Chief Technology Officer Hal Varian). The combination of one digital technology with another or with the physical world presents us a huge variety of possible innovations.

### The road to a (happy) future is paved with paradoxes

Secondly, there’s no clear understanding of what all these innovations will bring exactly. Nobody knows what the future will look like, because it is so new and the mix of these new realities inherently contain opposite outcomes. What is certain though is that we will constantly have to deal with paradoxes. Hope, happiness and delusions are the constant drumbeat of our digital era.



### Zooming in: the case of Estonia

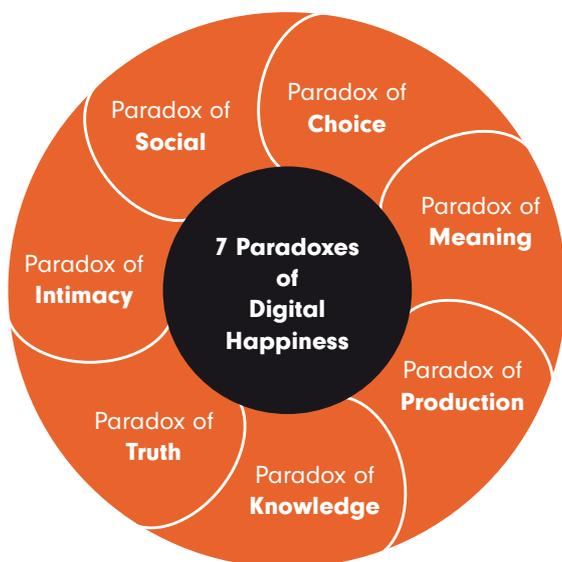
Take for instance Estonia as an example of the explosion of combinatorial innovation and the paradoxes that come along with those. Since its independence in 1991 the small Baltic country of Estonia has become one of world's most digitally advanced societies, and one of the fastest growing economies in Europe. Data integrity is a key characteristic of the so-called e-Residency project. While people can track who's looking at their data -the police for instance – the trust in the government has shifted from “just trust them” towards “just trust the data”. Another remarkable pillar of the initiative is the fact that everybody in the world can become an e-Resident of Estonia, giving them access to all kinds of digital services like starting a (e-)business or opening a bank account.

We interviewed Kaspar Korjus, Managing Director of that program, to understand how it works. “Envision this”, he told us.

“With e-Residency, Estonia is building the first transnational digital identity platform in the world. A new fully digital nation for global citizens, built on inclusion, transparency, and legitimacy to empower citizens globally and to achieve worldwide digital and financial inclusion”. Korjus added, “When you're born on the wrong side of the border, it is just bad luck. But that is unfair. Everyone has the right to live a happy life”. Residency and physical location are completely decoupled. e-Residency especially targets entrepreneurs who are fed up with the tiring administrative processes of their own government and offers to take away all friction with their superior frictionless alternative. “You don't have to migrate or visit the country, it's 2018; physical borders are so 2017”, Korjus explained. The Estcoin is Estonia's latest eye-catcher: they want to become the first country to launch their own crypto-token as a service for e-Residents. How's that for a vision?

## The 7 paradoxes of digital happiness

The case of Estonia is inspiring, but as any pioneer knows, they will encounter challenges. The road to a (happy) future is paved with paradoxes. 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. But some users counter that the app forces taxi drivers to act happy 24/7 and the authenticity of our relationships is at stake; the paradoxes of truth and social shine through. It's not always easy to find the right balance. 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 illustrated by these 7 paradoxes.



### Paradox of Social

Digital has created the ability to socialize virtually 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. If there's one thing that stands out in the contemporary digital behavior, it is that platforms are eating the attention of us all, including your customers. Companies like Facebook, WeChat, and Twitter are attention merchants, as it's in their interest that people spend more time on their platforms, and they go very far in seducing us. A study conducted by the University of Yale shows that overall the use of Facebook is negatively associated with our well-being. 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 the world's web shops. But research has shown that when confronted with too many choices, our happiness unexpectedly drops; too many options 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*. We asked Sandra Matz, a computational social scientist at the Columbia Business School whether there are digital tools to solve this issue of choice-stress. She directed us to her study called *How money can buy happiness* in which she 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.<sup>29</sup> Profiling customers can lead to customer happiness, but when you ask your customers they could argue the opposite. How are you profiling your customers and does that contribute to making better choices for them?

### 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 valued, that gave your life meaning, may diminish your happiness. But an AI-enhanced dermatoscope for instance, can add meaning (and happiness) to the life of the dermatologist using it.<sup>30</sup> How can you foster an AI-first strategy while preserving meaning for people? Andrew McAfee even warns for an increasing anger of society towards robotics, artificial intelligence and big tech companies. After immigrants and globalization (populist) politicians could point their arrows at these technologies and demonize digital.<sup>31</sup>

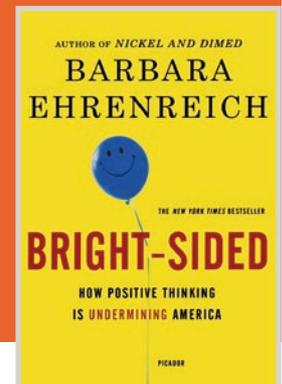
### Paradox of Production

Coupling consumption and production sheds a new light on the role of the consumer. The concept of "prosuming" is basically what we witnessed in history until the dawn of 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.<sup>32</sup> Do you invite stakeholders and customers to participate in the production of value?

## Is there a happiness paradox?

In her book *Bright-Sided* Barbara Ehrenreich writes about the negative consequences of the positive thinking paradigm. The financial crisis of 2008 could possibly have been prevented if we had kept a realistic and balanced perspective. The happiness bubble we are all emerged in, prevents us from asking critical questions, places an unrealistic responsibility on the individual, and could make us forget the troubles of others, society and the world. This could paradoxically lead to more unhappiness. Ehrenreich calls positive thinking the ideology of neo-liberalism.

Ehrenreich received the Erasmus Prize for her investigative journalism and writes for *The New York Times* and *Time Magazine*.



### Paradox of Knowledge

The 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. Because a lot of media and services on the internet are designed with a stickiness factor in mind, we are over-stimulated 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 to many questions. The same technology provides enormous opportunities to back up 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; people are leading their lives in their own filter bubble that is only confirming their existing values and beliefs. Even if there is something like a universal truth, it may be buried like 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 may also come across as “creepy”, provoke “uncanny” feelings, and lead to privacy violations. Take, for example, electronic billboards with facial recognition that adjust ads according to gender, age, state of mind, and emotions. Is this to be regarded as manipulation of the customer, or born out of a genuine wish to add value to the customer’s life? We want technology to become an extension of ourselves, but we don’t want to give up privacy, control, or the ability to choose freely. What are you doing to protect the balance between persuasive technologies and free choice?

## Our inability to deal with digital

The 7 paradoxes and the possibilities of (de)coupling create a world that is hard to understand with the more primitive parts of our brain. In prehistoric 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 brain into fighting or fleeing mode. Stress was impermanent and critical to survival. Modern times are different and more complex. 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 immediately experience stress. Since start-ups are aiming to add all five of our senses (vision, hearing, smell, taste, and touch) to the (AR/VR) experience, our brain will have an even harder time distinguishing between virtual and real.



The continuous exposure to virtual stressors and our inability to deal with them is one of the major points psychiatrist Professor Dr. Witte Hoogendijk addresses in his book *From Big Bang to Burnout*. We visited him at his hospital to

learn more about it. A five-meter broad visualization of the evolution of mankind was displayed at the wall of his doctor’s office. It starts with the Big Bang and the formation of the universe and ends with a rocket taking off from our planet. “Perhaps it is one of Elon Musk’s space programs”, he said. Hoogendijk started to explain 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. We are all imperfect

products of evolution, and the high stress levels we experience in our digitized society are a case in point. “What should we do about it?”, we asked. His answer was threefold.

It starts with acknowledging that we’re simply not wired to deal with these kinds of stressors. We experience higher levels of stress and are more easily distracted by these new powerful stimuli. Our modern stressors, the things that trigger our fish-brain and cause stress, are abstract, inevitable, and mostly beyond our control. We need to recognize our obsolete stress system and redesign our digital technology accordingly. Not in the least because research shows that stress-related illnesses like depression will become the leading cause of missed healthy years by 2030.<sup>33</sup> Still, Hoogendijk is optimistic. He sketched the three scenarios that he describes in his book:

- 1** The first one is that we’ll merge more with technology. “We need to increase intelligence in order to solve the real big issues on this planet”, he added. Breakthroughs in neuroscience are to be expected. Taking evolution in our own hands looks like a logical evolutionary next step.
- 2** Practicing more mindfulness is the other scenario. Technology might be exponential but evolution is not. Meanwhile, our fish brain will be here to stay for at least a few hundreds or thousands of years. We’ll have to find other ways to deal with these issues than rely on evolution.
- 3** And the third option is turning yourself in a data object. Apply all the gadgets to measure how you feel in all kinds of circumstances and learn from that. In fact, what he was suggesting is that we all have to become our own digital happiness researchers. Looking at technology through the lens of the seven digital paradoxes as earlier presented, could be seen as a start.

## Concluding bullet points

- The coupling and decoupling capabilities of digital lead to an explosion of (combinatorial) innovation.
- Since we are witnessing exponential growth in digital technology, the influence of technology on happiness will only increase.
- Our brains are not wired for “digital”. Digital technology has created a world full of paradoxes and abstract stressors which have a negative impact on our “fish brains”, causing anxiety, stress and burn-outs.
- The 7 Paradoxes illustrate the dilemmas that we need to face when aiming for digital happiness.
- A delicate balance in every paradox is required as technology choices become bigger than financial decisions – they become moral and ethical decisions.
- Digital is an all-embracing web of conflicting values and (maybe unintended) consequences. Given this complexity, how can we actually hack happiness?

# 3 Design: Hacking Happiness

More than anything else, digital happiness needs to be designed. It is the design of the customer's and employee's entire experience with their happiness, their well-being, in mind that is important. Especially now that it is becoming clear that there are happiness delusions, created by the digital paradoxes we described before. But how do you "program" happiness and turn your organization into a happiness engine?

Basically, there are three schools of thought that support this idea, and that help you to design a happy organization. There's the traditional enterprise- and experience design that has been applied for many years, and there are new schools of thought related to the current and future impact of digital technology. We like to call them the school of yesterday, school of today, and school of tomorrow. And like the ghosts in Charles Dickens' *A Christmas Carol*, all three (past, present, future) have valuable lessons to teach.

## School of yesterday: experience and enterprise design

Naming user experience the school of yesterday is of course a provocative way of explaining that there are new insights. And we mean no disrespect; designing for an excellent user experience and building for an outstanding customer experience have let us move away from the "computer-says-no" situations. Even when it comes to digital happiness UXD has done its job; one branch of user experience already focuses on designing for affective interaction and evaluating emotions. But we have seen earlier in this report that our definition of happiness is broader than just positive emotions. It's also about engagement, relationships, meaning, and achievements. Furthermore, user experience design is all about how a user perceives

aspects of a product or service. But sometimes something will be perceived as pleasurable at first but will have unforeseen consequences in the future. An objective evaluation is often missing in the school of yesterday. The same is true for Enterprise Design and Enterprise Architecture. This school of thought has been dealing with organizational and technological complexity for decades. Introducing design principles "to make life easier" and create more organizational efficiency has paid off. But despite the progress we see that teachers, nurses, policemen, and many others are complaining. It can be hard to get into a flow, enjoy work, experience a sense of meaning and purpose, when systems don't contribute to the essence of your work or when the bureaucratization of the work takes away the freedom and joy. New ideas and design principles to "humanize" organizations and create happier spaces to work in are definitely needed.

## School of today: Positive Computing & Time Well Spent

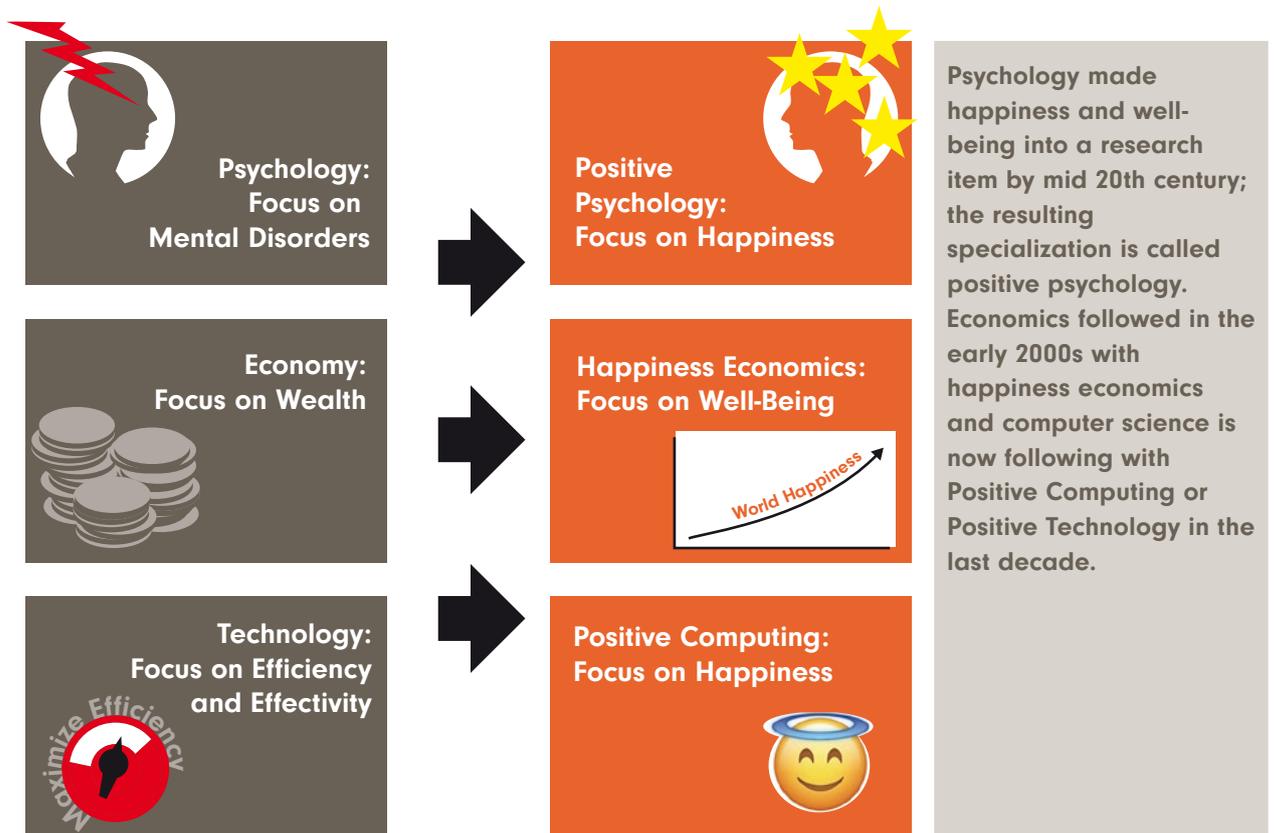
The foundations of the school of today are rooted in behavioral economics and psychology. Insights in what creates happiness (and unhappiness) are fundamental. Therefore we need to turn the scientific insights of positive psychology into Positive Technology. Computer science, and associated sciences are relatively

young compared to physics, medicine, economics and even psychology. Computer science only became a distinct academic discipline mid-20th century. Soon after the rise of the internet, psychology began studying the impact of emerging technology on human behavior and cyberpsychology was born. Although some academics were skeptical, because “nothing important” was happening online, the research field has grown substantially. And now, parallel to the shift from psychology to positive psychology and from economics to happiness economics, we see a whole new research field emerging: Positive Technology, also called Positive Computing. It is the digital derivative of positive psychology and human computer interaction and aims at designing technology to foster psychological well-being in areas such as pleasure, flow, meaning, competence, and positive

relationships.<sup>34</sup> Positive Computing is a multi-disciplined science and combines psychology, neuroscience, human computer interaction and design thinking.

**“If digital technologies are not yet actively supporting our well-being, it is simply because we have yet to consider it in the design cycle of technology.”**

**Rafael Calvo**



Going after the real thing (happiness), instead of “proxies are fundamental for Positive Computing. A first step to designing for digital happiness could be to take a look at the design principles from Positive Computing and create a bridge between science and practice. You’ll find these design principles in the book *Positive Computing: Technology for Wellbeing and Human Potential* by Rafael Calvo. He is a Professor at the University of Sydney and one of the drivers behind this new research field. Calvo co-authored this book with user experience expert Dorian Peters.<sup>35</sup> When aiming for digital happiness it can be overwhelming to target well-being in general. Instead, they recommend targeting one or more of the following well-being determinants: Autonomy, Compassion, Competence, Engagement, Meaning, and Relatedness.<sup>36</sup>

### Time Well Spent: taking responsibility for behavioral impact

While positive technology fuels the school of today from an academic perspective, Time Well Spent drives the school of today from bottom-up. The movement started with two now ex-Googlers: James Williams and former “design ethicist” Tristan Harris decided to take on the attention economy, where advertising is the business model of the internet. “Time Well Spent” aims to steer technology design towards having greater respect for users’ attention, goals and values. According to the growing group of followers, this could very well be the beginning of a movement similar to the Green Movement. Tristan Harris explains in an e-mail: “This topic has become mainstream far sooner than we ever expected, as people feel addicted, manipulated, and eager to engage.

Determinant	Enabler	Disabler
<b>Autonomy</b>	<ul style="list-style-type: none"> <li>Offering visualizations to understand and take control of things, e.g. spending</li> <li>Cross-platform solutions</li> </ul>	<ul style="list-style-type: none"> <li>Algorithms which present content without other options</li> <li>Too many options which cause inertia</li> </ul>
<b>Compassion</b>	<ul style="list-style-type: none"> <li>Making sure people are seen as humans, not as soulless actors in a process</li> </ul>	<ul style="list-style-type: none"> <li>Letting emotion rule over ratio</li> </ul>
<b>Competence</b>	<ul style="list-style-type: none"> <li>Adjusting difficulty levels to a user’s performance</li> </ul>	<ul style="list-style-type: none"> <li>One size fits all solutions</li> <li>Patronizing adjustments</li> </ul>
<b>Engagement</b>	<ul style="list-style-type: none"> <li>Giving options to control push-notifications and other disturbances.</li> </ul>	<ul style="list-style-type: none"> <li>Platforms that continuously scream for a user’s attention in the same high alert way</li> </ul>
<b>Meaning</b>	<ul style="list-style-type: none"> <li>Relating goals in digital media to “in real life” goals, e.g. using a banking app to save for a family vacation</li> </ul>	<ul style="list-style-type: none"> <li>Asking users to perform actions without the context of meaning</li> </ul>
<b>Relatedness</b>	<ul style="list-style-type: none"> <li>Letting users create inner circles to concentrate value and reduce noise</li> </ul>	<ul style="list-style-type: none"> <li>Scattering information with no sense of priority</li> </ul>

The six well-being determinants from Positive Technology. How to create or destroy digital happiness?

The tides are shifting quickly, but there is much work to do.<sup>37</sup> The movement has now matured into the Center for Humane Technology, which has the formalized goal “to protect our democracy, mental health, social relationships, and children from tech manipulation, and to inspire the realignment of technology with humanity’s best interests.”<sup>38</sup> Customers of the future are not just asking for more efficiency, but are also asking for more happiness.

To give you an idea what kind of world Time Well Spent and the Center for Humane Technology are striving for, we want to show a few aspects that show how a company could design an app, website or service differently:

	Before Time Well Spent	After Time Well Spent
<b>Ability to disconnect</b>	“Users want to be connected and reachable 24/7, all the time. If they want to disconnect, they can always leave their phone at home or uninstall my app” (All or Nothing choice)	“Users have a right to set boundaries between their work and personal life, bound their use according to their preferences, and set aside time to focus. I will design to empower them to create these spaces” (Choice <b>within</b> being Connected)
<b>Measuring success</b>	“I measure success in <b>number of transactions</b> (clicks, shares, visits, swipes, sales, rooms booked, messages sent)”	“I measure success in <b>net positive contributions to people’s lives</b> ” (time reading articles they were glad to spend, places they were glad to stay, people they were glad to meet)
<b>Greenwashing</b>	“I talk about my product in terms of catchy one-liners about how it benefits humanity”	“I talk about my product with humility, doubt and self-examination to see its full range of impacts more clearly– both positive and negative”
<b>Model of user behavior</b>	“Users are only doing what they want and <b>freely choose to do</b> ”	“I deeply influence what users are doing, feeling and thinking with my design choices – I can’t <b>not</b> influence people’s choices”
<b>Minimizing psychological externalities</b>	“It’s <b>their fault</b> if my product adds new looping concerns, feelings of guilt, fear of missing something, or other stressful thought patterns to users’ minds”	“It’s <b>my responsibility</b> to minimize psychological externalities that arise from using my product”

Time Well Spent: taking responsibility for the impact of your product leads to interesting changes of perspective. Time Well Spent makes this transparent with Before and After situations in different activities.

# Facebook

On January 12th 2018 Mark Zuckerberg, CEO of Facebook, announced major changes after Facebook saw its daily active user base declining for the first time in the U.S. and Canada during Q4 2017.<sup>39</sup> Zuckerberg apparently noticed the Time Well Spent movement: “One of our big focus areas for 2018 is making sure the time we all spend on Facebook is time well spent. [...] Research shows that strengthening our relationships improves our well-being and happiness. But recently we’ve gotten feedback from our community that public content – posts from businesses, brands and media – is crowding out the personal moments that lead us to connect more with each other. [...] We feel a responsibility to make sure our services aren’t just fun to use, but also good for people’s well-being. [...] I’m changing the goal give our product teams from focusing on helping you find relevant content to helping you have more meaningful social interactions.”<sup>40</sup> It remains to be seen how these changes will work out, especially since Facebook’s business model is completely build around advertising and paid content.

## School of tomorrow: beneficial AI

The school of tomorrow, along with technology experts all around the world, is concerned about the future of AI, how it can lead to digital unhappiness, and what to do about that:

- At the beginning of 2017 a group of leading AI experts gathered in Asilomar to discuss their concerns about the future of artificial intelligence. It resulted in a set of principles, the so-called “Asilomar Principles”. The principles have been signed by 1273 AI-researchers and 2541 others. The 23 agreed principles could be a good starting point for a digital happiness agenda, even if you’re not (yet) into artificial intelligence.
- In December 2017, the Institute of Electrical and Electronic Engineers (IEEE) published their second version of guidelines on *Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Artificial Intelligence and Autonomous Systems*. It was composed by several hundred participants from six continents, who are thought leaders from academia, industry, civil society, policy and government.

In our third research report on artificial intelligence (*The Frankenstein Factor*) we already discussed the importance of the Asilomar principles. It’s easy to get informed: there are only 23 of them and you can go the website of the Future of Life Institute to read them. The big picture: AI research should only be focused on creating *beneficial* intelligence, the economic prosperity created by AI should be shared broadly to benefit all of humanity, and designers should take responsibility (and sign the principles). What are you signing for? Our answer

would be: for choosing what's best for the individual and humanity as a whole. Going beyond the concept of a customer, because in the end we are all humans.

The IEEE report is more hands-on and thorough, a 263-page advice on how to create happiness and well-being with autonomous and Intelligent Systems (A/IS). One of the eye-catching pieces of advice:

### **“Start measuring happiness”**

IEEE pleads for quantifying happiness and well-being because traditional economic metrics don't take into effect the full impact of advanced technologies. The guidelines and principles IEEE presents should safeguard IT-systems “remaining human-centric and serving humanity”. In other words, they are worried that advanced technologies will de-humanize society if we don't create the design principles for a human-centric (digital) world.

Another point of advice from the IEEE report is that you should appoint someone responsible for the human values (page 66):

### **“Appoint a Chief Value Officer”**

This should be someone who is truly capable of understanding value and meaning in order to understand the customer.<sup>41</sup> This is aligned of course with the idea of measuring happiness to get the complete value picture. It could be a good starting point to apply the set of guidelines presented in the report. On the other hand, just putting a title on a business card doesn't mean anything if there's no formal power to create and apply new design principles attached to it.

### **A common denominator**

These three schools have a lot more in common than that they differ from each other. Rafael Calvo for instance, an important representative of the ideas on Positive Computing, is an important contributor to the IEEE report that we just mentioned. Both schools suggest taking human happiness and well-being as the core of digital strategies. The same can be said about Enterprise Architecture and UX design. Taking advantage of happiness can't be done without the support and contributions from the people in that field.

### **Concluding bullet points**

- Happiness can and should be designed.
- Knowing what makes people happy is crucial, scientific insights coming from positive psychology are therefore fundamental for creating digital happiness systems.
- School of yesterday: a lot of good practices, but explicit design for happiness could take us to the next level.
- School of today: Insights from positive psychology create opportunities to make end users more happy in a broad sense.
- School of tomorrow: The fear of AI creating more unhappiness in the future, drives important initiatives for designing new principles for digital technologies.
- Measuring happiness is seen as a key element in all three schools.

## 4 Quantify: Measuring the Happiness Economy

If you think quantifying happiness is a business decision you will have to make, here's your wake-up call: it is already happening, and it is done by your customers. We live in a world where people are obsessed with their own happiness. As a natural consequence, happiness is increasingly expressed through social media like Instagram or Facebook and specific review sites like booking.com. Savvy jobseekers rely on Glassdoor, and B2B marketers and clients go to B2B review platforms such as TrustRadius, G2 Crowd, and Salesforce AppExchange. Why trust a friendly sales face, when you can check case studies and testimonials of experts, analysts, peers and colleagues? Spreading our likes and dislikes has become second nature, and businesses do almost everything for good ratings. 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. The 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 broader market, the "affective computing" market, will grow from \$12.2 billion in 2016 to \$53.98 billion by 2021.<sup>42, 43</sup>

### **Happiness** is to be found everywhere

Let's have a look at a typical vacation day of a customer, Sarah. Her airplane has just landed in Bangkok. When Sarah gets off the airplane, the flight attendants say they hope she had a pleasant flight and they wish her a wonderful day. When she leaves the airport, she walks by a "smiley terminal" and pushes the green button; she was content with the flight and the handling at customs. Outside, Sarah orders an Uber and while waiting she checks the reviews of the driver. Partly out of curiosity but also just to be sure. After the ride, Sarah gives the driver 4 stars. He talked a bit too much and he didn't sense she just wanted to enjoy the scenery of the busy streets of Bangkok. She wonders how many stars the driver will give her. Standing in front of the hotel she realizes how smooth everything went and that she must not forget to mention she doesn't want to eat breakfast in the hotel. The reviews and ratings on Booking.com were quite unanimous that the breakfast was the only downside of the otherwise lovely place. Before she even sets a foot in the hotel, she sees that according to the reviews from yesterday, the hotel still hasn't picked up on this point of critique. Quite disappointing actually. She quickly opens TripAdvisor to look at the top-rated tourist attractions in Bangkok. In two days she's already flying to the next city, so she only has time to visit the top three. Time flies, so she'd better get going!

## Measure to the max

The story of Sarah was about her vacation, but Sarah could just as easily gone to purchase a car, find a new bank, or go on a quest for a new job. Despite the pervasiveness of this Happiness Economy, at the end of the day most engineers, marketers, and CIOs have little idea of what really works and whether their efforts produce the desired results. Currently, the most commonly used metric is the Net Promoter Score (NPS), invented by Frederick Reichheld.

### Net Promoter Score (NPS)

A management tool that can be used to gauge the loyalty of a firm's customer relationships. It serves as an alternative to traditional customer satisfaction research and claims to be correlated with revenue growth. NPS has been widely adopted with more than two-thirds of Fortune 1000 companies using the metric. NPS can be as low as -100 (everyone is a detractor) or as high as +100 (everyone is a promoter). An NPS that is positive (i.e., higher than zero) is felt to be good, and an NPS of +50 is excellent. There's one main question that serves as an indicator for customer loyalty in NPS: "How likely are you to recommend my company to someone you know?"<sup>44</sup>

Related to that, other popular metrics are the Customer Effort Score (CES) and the Customer Satisfaction Survey (CSAT). The CSAT is all about having customers experience and exceed the specified satisfaction goals, and with CES

it's about how much effort it takes customers to get the right answers to their questions.

According to Ronald Voorn, former Global Marketing Director of Heineken, there is still not enough scientific evidence to prove the claim of NPS that a higher score means increasing sales. We've asked Voorn whether NPS should therefore not be used. His answer was the opposite. For a more balanced look and more granular insight in the happiness of customers, quantifying happiness is key and therefore you should first look into which set of metrics are most suitable for you sector. Then you're to measure to the max.

**"Organizations should use the set of metrics (which can include NPS) which works best for them. There are many ways to measure happiness and customer satisfaction and you should test them all to construct your optimal set."**

**Ronald Voorn, founder of Science for Business Group**

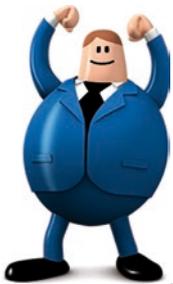
Just to show the range of possibilities, we briefly present to you the options and some examples of quantifying happiness. The overarching questions related to the possibilities here presented are:

- How intrusive is the measurement: physically, time-wise, psychologically?
- How rich are the outcomes? Are they one-dimensional or multi-layered?
- How true are the outcomes? Is it quantifying (real) happiness?

## Let's look at the options. Quantifying happiness:

### 1 By just asking

You can just ask people about how happy they are and one of the ways to do that is through the NPS. Since it is widely used, we'd like to enrich your understanding with an interesting use case of Bol.com. Bol.com is a leading e-tailer in the Netherlands with a revenue of 1.2 billion euros and 7.5 million customers. The company sells books, toys, electronics, and other consumer goods and is owned by Ahold Delhaize, a global food retailer. The company holds a strong belief that great service drives customer loyalty. That's why they measure their net promoter score on a constant basis. Bol.com has found that "promoters" recommend more, come back more often, and spend more (on average 30 percent more) than the detractors. Ten years ago Bol.com introduced Billie, a chatbot that could answer customers' questions. Today



Billie, the chatbot, was launched in 2007 and has progressed over time and currently scores +30 on NPS. As Billie the Chatbot is their main conversation channel, working on improvements of that channel has become key to improve their customers' happiness.

Billie has become their biggest customer service channel, handling 1.8 million conversations in 2017.

By measuring NPS they've found that switching from the chatbot to another channel resulted in a lower NPS score, since it is a nuisance. For instance:

- The NPS score after a phone conversations turned out to be 22 points lower when the customer needed to switch from Billie to a phone call.
- The NPS score of the use of Billie for returning goods improved by 18 points after integrating a function that enabled customers to identify products they've ordered, and print a return label without leaving the Billie chat function.

Needless to say, there are other ways of "asking". Questionnaires and interviews: there are many ways that would probably give you a richer context. NPS is popular for its simplicity, just one question. This also means it's one dimensional, but by analyzing the customer journeys over time, like Bol.com does, it becomes really actionable.

### 2 By counting the likes

Whether you ask for them or not, you will be rated with likes, stars, and emoticons on several

platforms. It's quick and one dimensional. Rating happiness can be done by gathering the likes and the stars given on all kinds of platforms. And since the voice of the customer is already expressed and counted, you only need to go out there and find it. Marketers love it when ratings are good, and they want to use it in their advertisements. The risk is that marketing purposes are getting more dominant than quantifying "true" happiness.



### 3 By looking at clicks, swipes and taps

We are altering interfaces continuously and measure the changes in view-through rate (VTR), click-through rate (CTR), conversion rates, shop-

ping cart abandonment rates, etc. It has become a standard practice for optimizing experiences and with A/B testing in production there is little harm in experimenting with new ideas.

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### 4 By looking at big data

In order to make people happy, part of the insights derived from big data could be used. We already mentioned for instance the research done on profiling by Sandra Matz that shows that “Money can buy you happiness” when companies use big data to match a product to a customer’s personality. But beyond consumerism there are cases on safety, health and all kinds of other issues where you can actually

contribute to the joy, pleasures and a sense of purpose of your customers. A lot of companies have found out that they are sitting on a gold mine of information and are looking for ways to not overstep the boundaries regarding privacy, legislation, and risk management. The debate on this issue will continue and, in the end, it will be up to us – human beings, customers and citizens – to decide what role we accept for organizations in this happiness area.

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### 5 By analyzing expressions of emotions

An impatient or angry customer can be traced by software analyzing the tone of voice and automatically connect to a human call center agent that is best in handling such a situation. Sentiment analysis of things being said about your company on Twitter or other social media can be captured by text analysis applications.

This can be accompanied by humans empathically and carefully reading the reviews. Do we detect expressions of smiles or surprises on the face of a customer? There’s software that can tell you what’s going on. Just Google on: Affectiva, Emotient, RealEyes, Moodpatrol, Nviso, Kairos, IBM tone analyser, Aylien, PreCeive, Beyond Verbal, Vocaturi, Callminer... and many, many more. Start experimenting.

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### 6 By using a wearable device

There’s much more to say about using wearable devices to measure happiness. Fitbits, implants, smart nails (they do exist), or brain interfaces (they also exist) are possible, but we’d like to focus on one particular case here. It might give you goose bumps when you think of the following scenario: you wear a device around your neck to measure the companies’ happiness. The intrusiveness not only comes from the fact that you’re wearing something, but much more, how your data is treated and

that your privacy is at stake. The way of measuring happiness that we present here is part of a new scientific field called “People Analytics” or “Social Physics”<sup>45</sup> and time will tell where the boundaries regarding intrusiveness and privacy will lie.

More than a decade ago Japanese multinational Hitachi created a “Happiness unit”. It is run by Kazuo Yuno, the Chief Corporate Scientist, and has gathered data of over a million man-days of behavior through what they call “the badge”.<sup>46</sup>

The data from the badge is sent back to a base unit, which calculates the happiness of the group as a whole by comparing the patterns of



The badge: measuring motion, interaction, movement and voice. A credit card-size wearable device loaded with sensors that determine where the wearer is, and whether he or she is sitting, standing, typing or nodding, talking (to whom) and for how long. The device is an enabler of people analytics, a data-driven approach to managing people at work, based on deep analysis of data.

activity with pre-determined patterns from groups who report being happy. According to Kazuo Yuno, measuring happiness through physics is giving better insights in happiness than self-reporting on happiness or, for instance, measuring facial expressions. One of the results of a Hitachi study measuring productivity in a call center found that happy employees performed 20 percent better than their unhappy colleagues. One of the indicators was the amount of social interaction during the breaks. In short: more social interactions, more happiness, higher productivity. This Hitachi case study has been published by Ethan Bernstein, "Sensing (and Monetizing) Happiness at Hitachi". Bernstein is assistant professor in organizational behavior of Harvard Business School and specializes in workplace transparency. Bernstein says that people are interested in their own data but are more skeptical about sharing their data with others. However, they are generally interested in knowing whether the others around them are happy or not.

## 7 By humans observing humans

This is a well-known practice within design agencies. Behavioral experts and anthropologists go out in the field to see how people deal with real-life situations in order to find ways for improvement. This is a great way to "go beyond customer obsession" and to define the unexpressed needs and desires that can make people (more) happy. The issue here is that you need experts to interpret the situation and translate it into satisfactory solutions. There's no

doubt that end user happiness is always the starting point of these kinds of customer journeys. We asked Risto Lähdesmäki, CEO and Co-Founder of Idean, to give an example of how it works. Idean is a design company with studios all over the world that is recently acquired by our own company. Risto's baseline was "It is the closest you can get to the customer. You need to go where the action is". One of the examples he gave us was about a mining project. By observing the behavior of



miners for weeks, doing what they do, using their tools, becoming the user, they were able to design new mining tools and supporting IT systems. Understanding the customer is not only about numbers, but about really under-

standing the problem through observation. Their designed user interface was a success and couldn't be done without factoring the human into the equation.

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## 8 By imagination

You could skip the dirty work. Due to time and budget limitations, observational and experimental methods often get skipped and imaginary users, the typical "John" or "Mary", are introduced. Needless to say that fieldwork and creating personas is often combined. It's easy to understand the pitfalls if you don't do this.

People start projecting their own assumptions without doing proper research. But you could also take it one step further and imagine the unimaginable like Elon Musk and Steve Jobs have done. Both observation and imagination can take you out of the traditional client box and lead you to powerful innovations.

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## Quantifying happiness in society

A ninth way of measuring happiness is to measure the happiness of countries and the society as a whole. Of course, this is a different context than your direct business environment, but at least two things can be learned here. The first one is that it fuels the debate on the question "What do we really want?" Economists are spreading the H-word and it's picked up in media and discussed at the coffee machine in your organization. One of the economists who is an important contributor to this discussion is Claudia Senik. She is professor Economics of Happiness at the University Paris-Sorbonne and one of the authors of the first OECD World Happiness Report in 2012. We interviewed her to learn more and what we've picked up from this, is the second point: there's a shift from measuring "by asking" towards measuring real-time with the use of big data and adding more objective criteria (such as the average life expectancy, graduation rates, crime statistics

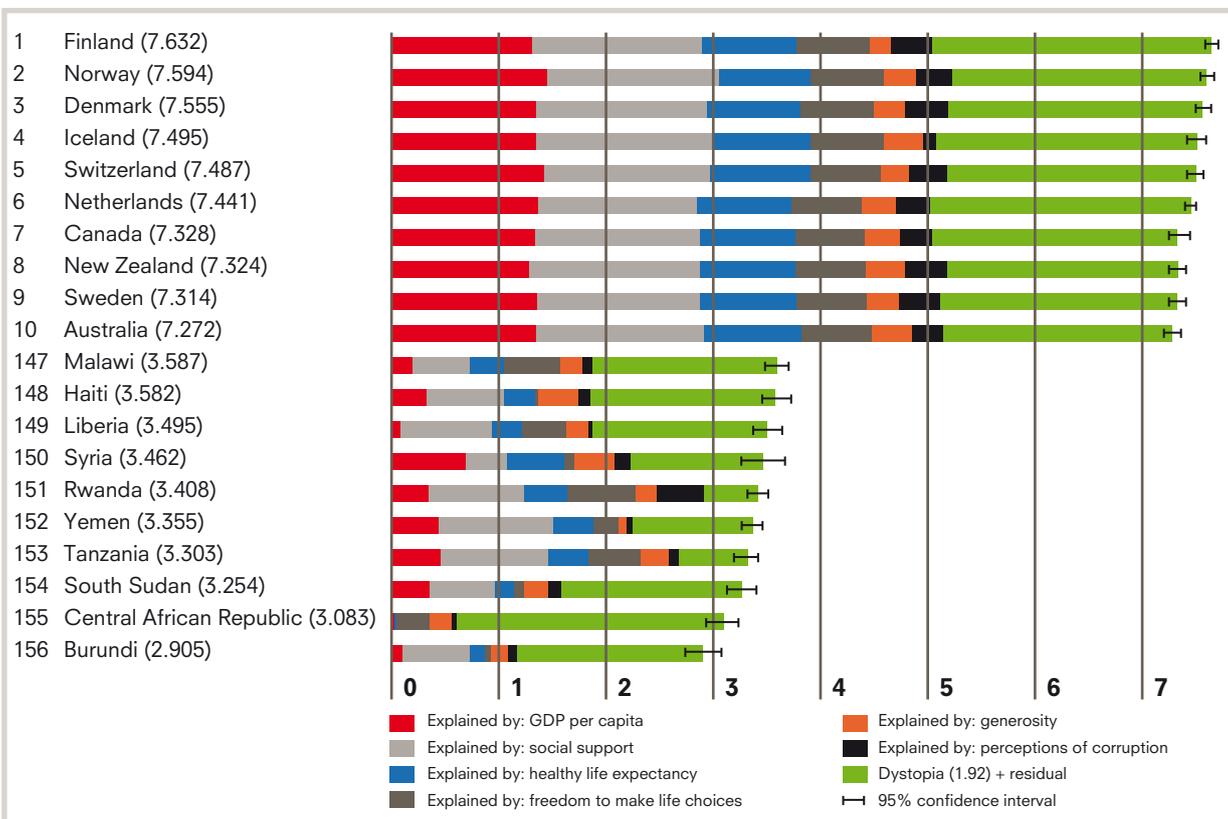
and income). On a national scale the subjective and objective metrics together form the "Gross National Happiness". Gross National Happiness is now being measured every year for almost every country and analyzed in the Gross National Happiness Index by the Organization for Economic Co-operation and Development (OECD).<sup>47, 48</sup> The Gross National Happiness Index yearly ranks the countries from the happiest to the unhappiest and uses objective matters like GDP, but also subjective metrics like how many times people laughed or smiled yesterday, and experienced business and government corruption and "freedom".<sup>49</sup>

Senik and her team are now looking to construct a big data happiness indicator to improve their research. During our conversation, Senik points to two big advantages: speed and precision. "Otherwise, the surveys were done once a year. So, you knew how happiness moved, but only once a year. You can now use this big data happiness indicator to understand what is happening in a precise region or population with a

really high frequency.” It will be no surprise that this kind of research is growing. One of the most prestigious “Happiness Big Data” projects is from researchers at the University of Vermont. Peter Dodds and Chris Danforth developed the Hedonometer: an instrument that tracks the happiness of the United States on Twitter.<sup>51</sup> The Hedonometer correlates with “real world” measurements such as the Gallup Well-Being Index<sup>52</sup> (similar to the Gross National Happiness Index of the OECD), and the Peace Index (which surveys rates of violent crime, incarceration, and homicides). Danford explains their business value while underscoring Senik’s point: “We can tell if a public health campaign to invest in school nutrition is changing the way people talk about food or engage in activities.”<sup>53</sup>

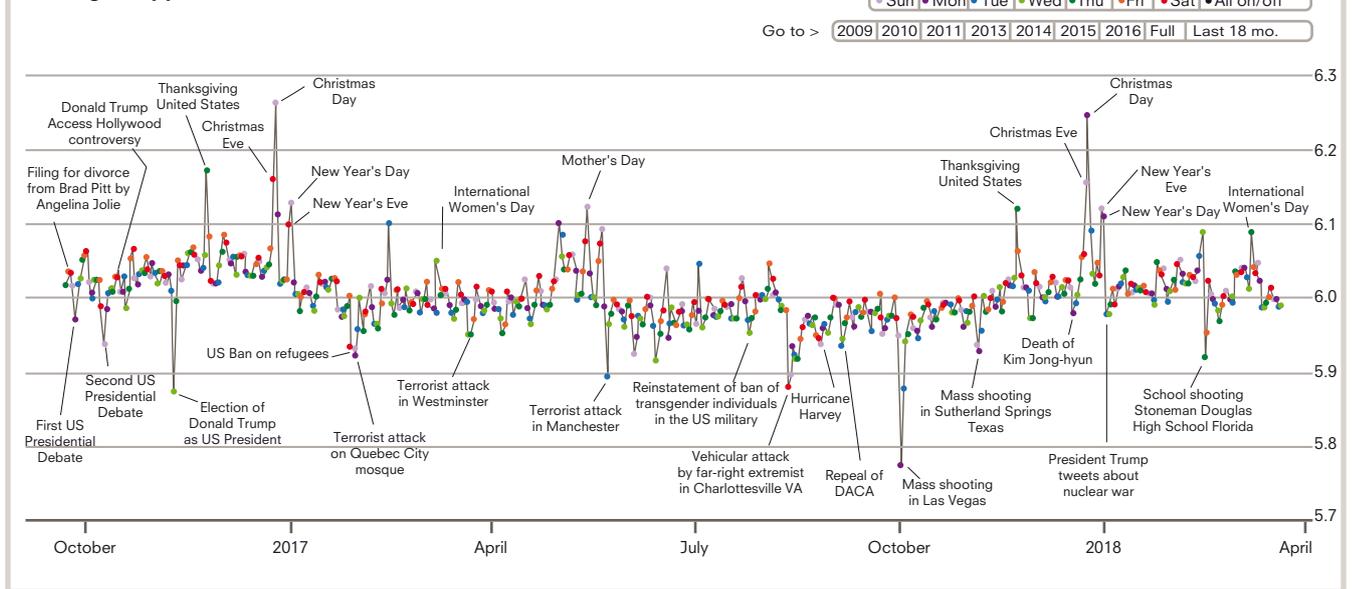
## In conclusion: the future of measuring happiness

We started this report with the statement that all you ever dreamed of now can be built. Through quantifying happiness, we can “capture people’s dreams”. From a simple “like” or a simple question to devices like “the badge” or even more futuristic brain interfaces – a whole spectrum of opportunities lie ahead. All these services and products let you gather actionable, real-time insights about your audience’s reactions to your content. They will contribute to a more accurate Voice of the Customer or employee, and it looks like a matter of time before they are integrated into Customer Feedback Management Platforms<sup>54</sup> which already gather feedback across multiple



The top 10 happiest and unhappiest countries according to The World Happiness Report 2018.<sup>50</sup>

## Average Happiness for Twitter



The Hedonometer is an instrument that tracks the happiness of the United States on Twitter.

channels and touchpoints. Two questions seem to be ultimately important, looking at all these opportunities:

- 1 Is it OK when I use these options?
- 2 Is it OK when I not use these options?

When happiness is your guidance, you're confronted with both issues. Are you doing enough, are you pushing the envelope so to say, to go beyond customer obsession in order to understand what ultimately drives people's happiness? Are your customers happy about the way you treat (their) data, are they convinced your quantitative information about them will be used for their happiness? Maybe it's wise to include the option to opt out, because not everyone wants to be measured and quantified.<sup>55</sup> The next and final chapter of this report introduces the concept of becoming the guardian of the happiness of your employees and customers. One thing seems crucial, a word we've been avoiding until now, and that is trust.

### Concluding bullet points

- We live in an age where we want to quantify, analyze, and understand every breath and every move the customer takes and makes.
- The examples we have shown clearly demonstrate new opportunities to understand the customer, but it is also clear it is still a field for pioneers.
- Gross National Happiness and related concepts have taken a steady place in our lives. The well-being of our society is increasingly seen as an important goal, next to GDP and other economic metrics.
- Incorporating big data is still in an experimental phase, but the interest is certainly there and the first results are promising.
- And maybe, while this domain of research will grow, the amount of details and correlations found will also grow which will help clarify the "dollar to happiness rate" of companies.

# 5 Becoming the Guardian of Your Customer's Digital Happiness

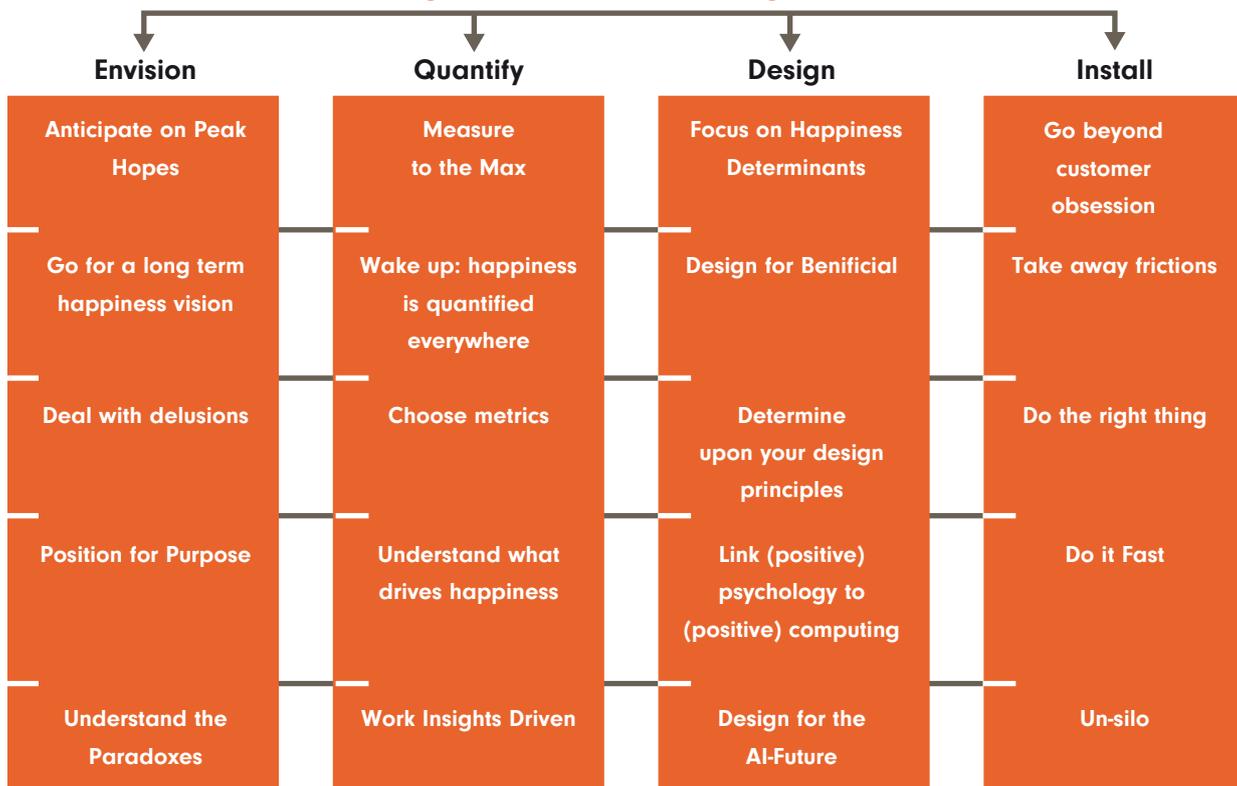
On January 6, 2018, two large shareholders of Apple, owning \$2 billion of Apple stock – JANA Partners (a hedge fund) and the California State Teachers' Retirement System (CalSTRS, a pension fund) – published an open letter, saying that Apple should do something about children's iPhone addiction (See [thinkdifferentlyaboutkids.com](http://thinkdifferentlyaboutkids.com)). It's a remarkable move from a shareholder's perspective, showing that in the end we all care about happiness and well-being. It also shows how "The 21st century Human Project", as we discussed earlier in this report, can play out. Because underneath the beauty of all these fantastic technological possibilities, the pursuit of happiness is the thing that truly drives societal and business change.

The EQ-ID model was helpful for us to structure the story. But Envisioning, Quantifying, Designing and Installing are of course oversimplifications. Especially when you consider

Installing as something to be implemented, like a software update. The way to install happiness is to pursue it, like everyone else is doing. How? These are the highlights we presented.



## Becoming the Guardian of Digital Happiness



So where does this all leave us? We, the authors, are continuing our research and are already working on a second report in this series. The next one will shine a different light on happiness and will discuss something that has rapidly become one of the hottest issues in IT. It's the question whether we can trust the systems that are used to build digital happiness. Can we ever be digitally happy when the Big Five companies that run the IT-industry are becoming so powerful, that they are taking over the economy as a whole? The fact that they are called the Frightful Five nowadays and that they are representing IT could have severe consequences for the general public. And this will influence the questions you might get about your own digital happiness practices.

It's about who can you trust? Who can we trust to bring happiness, or to create a positive context for happiness, and who is a true digital happiness guardian? It's the key question Rachel Botsman is asking in her latest book (with the same title: *Who Can You Trust?*). It was remarkable to listen to the panel discussion, hosted by Botsman, at the world Economic Forum in Davos on the 23<sup>rd</sup> of January 2018. The panel

had the striking title: "In Tech We Trust". Dara Khosrowshahi, formerly CEO of Expedia and since August 2017 the CEO of Uber, gave some shocking examples of how they can influence consumer behavior, but because of their company values they decided not to use these tricks. They spoke about the rise of platforms that foster *fast trust*, and about the immense power these platforms have which can lead to abuse. Khosrowshahi explained during the discussion that "A company starts having so much data and information about the user that if you describe it as a fight, it's just not a fair fight," Another panelist, Marc Benioff, CEO of Salesforce said that IT is like the tobacco industry. This wildly interesting panel discussion is the opening scene of our second report. There is a lot going on. Maybe Tim Berners Lee was right when he said "The Internet is Broken". But looking at these issues from a happiness perspective, it suddenly becomes pretty simple. Let the design principles of positive computing guide your actions. Do what is good and let that obsession drive the energy to learn more about humans and find ways to support their lives in a positive way. It is a sustainable strategy, maybe even for the next 300 years.

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For the difference in relation to positive psychology we recommend the following by Martin Seligman:  
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"Good mental states, including all of the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experiences. This definition of subjective well-being hence encompasses three elements:  
1. Life evaluation – a reflective assessment on a person's life or some specific aspect of it.  
2. Affect – a person's feelings or emotional states, typically measured with reference to a particular point in time.  
3. Eudaimonia – a sense of meaning and purpose in life, or good psychological functioning."
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