“If a man will begin with certainties, he shall end in doubts. But if he will be content to begin with doubts, he shall end in certainties.”
— Francis Bacon

“History doesn’t repeat itself. But it does rhyme.”
— Mark Twain
We’re at the halfway mark in the digital revolution. What will happen when we cross this point?

The idea behind the New Normal is quite simple: ‘We’re halfway there’. The New Normal is about all things we call ‘digital’, and in the digital revolution we’re probably only halfway there. That means we have as much journey ahead of us as we have behind us.

In this book, we want to explore the world of ‘digital’ once we’ve crossed the halfway point, specifically examining the impact of the New Normal on our business lives. In our opinion, the second leg of the digital journey will be completely different from the first leg that is now coming to a close.

The glass is half full, and this will drastically change our perception of technology. The next ten, twenty and thirty years will be marked by an ever increasing digital world and society, but there will be some fundamental shifts in our behavior and our adoption of technology. The impact on businesses and the way they use technology will be enormous.

How do we know that we’re halfway there? We don’t. Justin Rattner is Vice President and Chief Technology Officer of Intel, the company that powers most of our computers with their Intel
chips. Justin is a ‘deep’ thinker, and his point of view is that we’ve now had roughly 40 years of Information Technology, but as Justin says: “If you think the past years of digital revolution were pretty amazing, think again. The next 40 years will blow you away, and will make the past 40 years look pretty tame.”

Quite a bold statement, but then again, Intel builds and sells the technology of the future. The future is being made in their labs at this very moment, so he should know.

One of the co-founders of Intel, Gordon Moore, famously identified a trend in computing power that has been shaping the industry since the 1960s. According to ‘Moore’s Law’, the power and speed of computers double approximately every two years, and the semiconductor industry now sets targets for research and development based on exponential gains in digital capacity about every two years.

Ray Kurzweil, the great future thinker, put this relentless trend in context: “The computation in a cell phone today is a million times cheaper and a thousand times more powerful than the computer I used as a student. That’s a billion-fold increase in price performance. And it ain’t about to stop now.”

Kurzweil is notoriously optimistic about the upcoming decades of the digital revolution, but this is not a book about how great and wonderful the digital future is going to be. We have focused here on the impact of the digital revolution on your business, and how the awareness of the trends that we’ve seen over the past generation can help shape your business strategy going forward.

**THE NEW NORMAL**

**DIGITAL IS THE NEW BLACK.**

What will happen is that digital will become the New Normal. For more than thirty years, we’ve become increasingly digital, and the moment has arrived that we’re passing the halfway mark. From now on, digital is the norm. Everything we do from this point forward will have one common characteristic; we will expect things to be digital.
This is a statement on how our perception changes when digital is just ‘normal’. How we will expect digital things to always work, and will have a zero tolerance for digital failure.

This is about how we will crave for human contact in a world where most interactions with organizations and companies will be digital, and where analog might actually see a revival.

We will have to market to consumers differently when the world has become a digital society with the user in control of the consumption of information.

The second leg of the digital revolution won’t be a walk in the park. In fact, it will be much more difficult to truly stand out and differentiate your organization. In the beginning, it was simple; using technology was a novelty and gave you an edge. In the New Normal, access to technology is a commodity, and you will have to focus on other skills in your organization to make the difference.

The analogy I like to use is the swimming pool. If the digital revolution is the complete pool, it would be safe to say that you’re halfway in the water. You’ve waded through the shallow end, but your feet still touch the ground of the pool. There is no indication, however, that you will be able to swim in the deep end.
IT departments will have to adapt to a world where they no longer introduce hot new technology, but where they will have to play catch-up to what their employees are using in their homes and find completely natural. Let’s now explore the deep end of the digital pool.

**A BRIEF HISTORY OF DIGITAL**

The roots of the digital revolution stretch back over 2000 years, to the invention of the abacus and the slide rule, and wind throughout the following two millennia, tracing innovations in both automated calculation and programmability. Fast forward to the 20th century, when, over a ten-year period during the 1930s and 40s, the cumulative innovations of a wide range of scientists and engineers led to the birth of modern digital computing, driven in large part by government-funded research.

The 1960s saw the transition from vacuum-tube-based electronics to transistor-based machines, which ushered in a new paradigm of digital advancement, framed broadly by ’Moore’s Law’. As speed increased and the need for power decreased, the digital world spread from governments to corporations to individuals. And at a certain point at the end of the 1990s, the decreased costs of hardware combined with the growing World Wide Web and a consumer-centric software revolution caused an inflection point:

**The technology in our home eclipsed the technology in our work life.**

**SOCIETY HAS CLEARLY GONE DIGITAL**

IT AIN’T KANSAS ANYMORE, IT’S SILICON.

Observe the changes in our home environment.

Ten years ago, if you had access to a laptop, it was probably on loan from your IT department. And ten years ago, this laptop, or your desktop PC, was probably the nicest, most expensive, most sophisticated piece of technology in your home, and was gradually handed down from the older generation to the newer generation. In previous times, clothes were handed down, but technology became the new hand-me-down.
Today, the tables have turned: the most powerful technology in the house may be owned by a teenager who needs the ‘fastest and coolest’ computer in the house to play ‘World of Warcraft’. When that won’t do anymore, it will be handed over to the siblings, and eventually you end up with something on which you do your home banking. That is a total reversal of power in our living rooms in just ten years.

I saw a recent survey in Australia on the necessities in life. They asked hundreds of (young) Australians what they thought were the most important ‘necessities’. The top two answers – ➀ a car, and ➁ air conditioning – were not surprising, as Australia is a big, hot continent. But the rest of the top 10 list was dominated by digital fare like iPods, laptops, Facebook, high speed Internet, mobile phones and flat screen TVs. As a sign of the times, on the top ten list of the absolute ‘necessities in life’, food didn’t make the cut.

Physiologically speaking, these young Australians are jumping the gun a bit, but we can clearly see the perceptions of digital importance in the younger generation.

**DIGITAL IMMIGRANTS VS. DIGITAL NATIVES**

Most readers of this book don’t have a long history of being digital. Most of us are still digital immigrants. But we’re entering a world where analog really is the exception. I like this simple test to distinguish between a digital native and a digital immigrant. You put a camera on a table and just ask “What is this?” A digital immigrant will say: “That’s a digital camera”, whereas a digital native will say: “It’s a camera”. A digital native has probably never used an analog camera in his life.

The more we use the adjective ‘digital’, the more antiquated we sound. When digital becomes the New Normal, the adjective digital loses its descriptive meaning. Perhaps we should stop using...
the word altogether, because it is a clear indication that we’re still deeply anchored in the first leg of the journey.

THE NEW NORMAL IN THE WORKPLACE

What happens in the workplace as younger workers continue to replace older workers and as employees of all ages live increasingly digital personal lives? This is a key issue that all businesses should reflect on to make the most of opportunities within this transitional period. Today technology is a commodity. Technology is not work. Technology is life. Just a decade ago, our employees got their laptops, desktops, cell phones and Internet access from work. Today, they have better computers and connectivity at home, and they have much cooler personal cell phones than the ones we give them.

This is causing trouble for the IT folks. IT departments have turned from being ‘dispensers of cool stuff’ into the ‘dispensers of really old boring stuff’ in just a couple of years. When we used to hand out a computer and cell phone to a new employee on the first day of work, the employee would say, "Thank you". Now when we hand out their laptop and phone they look at us incredulously and think, "You don't think I'm going to be seen on the street carrying that around, do you?"

Generation Y – people born after 1978, typically the newest and youngest crop of office workers – are particularly affected. This is the first generation who have lived most of their lives in a digital world, and they think differently about technology. For them, technology is not for work but for life. They wake up with technology and go to sleep with technology, and as a matter of fact, their definition of work is: “That brief period during the day when I still have to use old technology.”

WORK = The brief period during the day when I use old technology.
IS IT ABOUT IT?

In a business context, what role will IT play in the realm of the New Normal? In my previous book – ‘Business / IT Fusion’ – I talked at length about the need for IT departments to transform themselves and become much closer to the business.

But here, we’re going even further. This is not about just re-positioning IT, or re-thinking the role of IT. Here we will examine how to reshape IT into something completely different. We will try to define what the ‘shape under the drape’ will be, and define what will happen to IT when IT becomes a commodity. We will redefine IT in the New Normal.

We are already feeling the impact of commoditization in IT. Commoditization pressures are high, and they are manifested not only in employees who are agitating to buy their own IT kits and bring them to work, but in tough questions by senior executives. Questions that all start with:

“Explain to me why”

such as:

- “Explain to me why the upgrade of our corporate website is going to cost half a million, while my 13-year-old nephew built the website for his school last weekend on open source...”
- “Explain to me why I can’t find anything in our state-of-the-art document management system, and particularly why I had to spend over an hour retrieving a document I had put there myself, when I can go onto Google and find anything in less than three seconds...”
- “Explain to me why I can book a flight online in two minutes, but it takes me almost an hour to input my expense account statements in these horrible SAP screens...”
- “Explain to me why I can buy a printer in the shop around the corner for under $200 and have it here in fifteen minutes, but when I use the corporate IT channels it takes me two weeks and costs three times as much...”

And that is just the beginning. The power of IT departments evaporates as corporations enter the New Normal. In the first leg of the digital revolution,
IT had a strong power base, as business executives depended on the ability of IT to guide them through the wonderful world of technology. But in the second leg, that power base is gone. The choice for IT departments is to either melt away, or adapt and reshape to reflect the new realm.

Today we still have armies of trained ‘builders’ in our IT departments, people we absolutely needed in the first leg to construct our IT systems. They are like the myriads that were necessary to build the pyramids, but became idle once the pyramids were built. We built IT systems to last forever, or at least were designed that way, but we now need IT to help businesses be flexible, agile and capable of turning on a dime.

This pressure on IT is not a transition phase. It is here to stay. It is the New Normal of IT.

**THE FOUR I’S**

Clever businesses will anticipate the necessary changes, and will dismantle the old IT and transform the way we think about technological innovation. In this book we will talk about the four I’s that are the pillars of a re-imagined technology paradigm:

1. **INFORMATION**

   Yes. IT stands for Information Technology, but in the first half we focused on the ‘T’, while in the second half we will have to focus on the ‘I’: Information.

   As John Naisbitt wrote in his great book ‘Megatrends’ in 1982: “We will be drowning in information, and starved of knowledge.” He was right. Today companies are overflowing with emails and documents, flooded with templates and folders, and inundated with intranets, yet nobody finds anything. While we have certainly become more efficient producers of content, do we use that new content to increase our overall productivity? In the first leg we focused on building a technological foundation to enable knowledge workers to collaborate, but now we have to shift and build the skills, competencies and attitude to be more productive with that information.

   In a special report called ‘The Data Deluge’ by The Economist (25 February 2010), a single graph illustrates the information overload and the
growing gap between storage capacity and the amount of information being created.

**INTELLIGENCE**

How many databases does your company have? How much data do you handle? How accurate is your data? How much is data and how much is real intelligence? We store zillions of datapoints, and the overall reaction in most boardrooms must be: "Nah. The numbers are wrong." We have more data than ever before, but we just can’t seem to turn them into intelligence. We built databases so fast that we can’t see the forest for the trees. Then we built data-warehouses on top of the databases to make sense of the data. Then we decided not to trust those either. We’ve piled system on top of system, spent billions on capacity to store data, but that no longer works in the second half. The second leg means a focus on intelligence, not on data storage.

**INTEGRATION**

A company isn’t an island anymore. We’ve spent the last ten years building connections between systems within our organizations, but we’ll spend the next ten years integrating our information with information outside our
organizational boundaries. The skill of the second journey is the capability to cleverly connect, while the essential skill of the past was to masterfully build.

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**INNOVATE**

The most important of the four I's is the mindset we need to adopt. It's not about technology anymore: it's about being *clever* with technology. It's about technology-enabled innovation. When access to technology becomes a commodity, we no longer differentiate by just using technology. What we need to do is to develop the capacity to innovate *with* technology.

This is quite a quantum jump. That’s why the transition will be hardest on the old IT department. It’s about making that change, kicking off that first stage of the rocket and burning up the boosters in the second stage to transcend the earth’s atmosphere.
Some companies will be affected more than others. In his groundbreaking book ‘Being Digital’ in 1995, Nicholas Negroponte framed the difference between ‘moving bits and moving atoms’. Some companies are almost purely ‘bits’ companies, like banks and insurance companies. Their real assets are nothing more than ‘bits’ of information stored and transported. Conversely, some companies are ‘atom’ companies, profiting from the movement of real physical material. The core question is:

Can the product or service that your company offers be digitized?

What we’ve observed since Negroponte’s book is that some ‘bits markets’ have started feeling the heat. Just look at the massive changes we’ve seen in the media business: print media has lost classified ads to online variants like Craigslist, ad revenue on television is declining rapidly as more eyes view online, and the music industry has been decimated by online offerings, first illegally on Napster and now legally on iTunes.

The pure ‘atoms markets’ have been impacted much less significantly. If you run a coal mine in Australia, or operate a quarry in Zimbabwe, the chances that you’ve been obliterated by the New Normal are much slimmer. Realistically, most companies are not 100% bits or 100% atoms but the ‘Atoms to Bits ratio’ is a good predictor of when the New Normal will hit you.

Take the travel industry – there are plenty of atoms here: planes, hotel rooms, fuel, swimming pools, etc. But the
A pattern of interaction between travel companies and their customers has turned almost exclusively digital. The industry changed dramatically when the New Normal hit them. Today, almost every customer uses digital technology to find out information about a travel destination, using the Internet to compare different offerings and increasingly using digital means to reserve, book, pay and give feedback on their travels. The fundamental goal of the industry – to move travelers from one destination to another – is still very much intact, but the details have changed immensely.

When the New Normal hits a market like the travel industry, the impact can be devastating on the bit-centric elements of the business, but it impacts the traditional ‘atoms’ parts too. In the travel sector, the ‘rhythm’ used to be very simple: two major releases per year. The travel companies produced a winter catalogue and a summer catalogue and the whole organization revolved around those two major peaks of activity per year. Once the sector hit the New Normal, the rhythm of two releases per year evaporated and the operations of the companies became a 24/7, 365 days a year operation.

The companies in the travel sector that were able to cope with the New Normal were those who repositioned technology not as a ‘side activity’ in the IT department, but made technological innovation the core of their activities, leading them to innovate new ways to interact with their customers and partners. These changes aren’t IT changes; they are business changes. It requires business attention and business oversight to make this happen.

**CAN YOU ADAPT?**

Can you adapt? Can you adapt to the New Normal, and can you do it quickly enough? Can you shift your mindset towards the realities of the New Normal?
Over time, the problem will disappear. In twenty years, most managers will be digital natives, and everyone else will have adjusted to the New Normal. But the transition phase between the halfway point, where digital becomes the New Normal in society, and the point where digital has become the New Normal in the boardroom, will be a crucial one.

It is your responsibility to manage your company through those challenging years beyond the halfway point. Your challenge is to navigate your organization through the storm of the New Normal.

**ONWARDS HO**

In the rest of this book, we will look at the New Normal and explore its limits. We will discover what happens when we’re fully submerged in the deep end of the pool. We’ll explore the impact of the New Normal. We’ll study what the limits will be when we look at attention span, intelligence, pricing, privacy and control when navigating the second leg of the digital journey.

We will also construct ‘rules of the New Normal’. We will review the rules which will govern the second half of the game, and how we will have to
behave as organizations to keep employees and customers on board in the New Normal.

Next we’ll tackle the four I’s. Information, intelligence, integration and innovation are the mantras of the New Normal. This book will clarify what they mean, how can you build a strategy in those areas, and how can you practically tackle the challenges ahead.

Finally, I want to reflect on IT itself. How can we reshape the old IT, and how can the business take ownership of technology-enabled innovation? What will be the ‘shape under the drape’ when we examine where technology is leading us?

You are at the crossroads of the digital revolution, and about to step into the great unknown. Our feet are feeling the curve of the pool dropping away below us, and we can sense the attraction of the deep end of the pool. We feel the tug of the New Normal all around us, in society, in our family, in our colleagues who are being drawn into the realm where being digital is just being normal.