







# THE VIRTUAL ECONOMY

A GUIDE FOR LEADERS TO THRIVE IN THE 3RD AGE OF THE INTERNET

JEREMY DENISTY & DADO VAN PETEGHEM To our kids, Harvey, Noah & Milou Our beacons of the Alpha Generation And to our lovely partners, Frauke & Marine

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### SETTING THE STAGE

We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction.

– Bill Gates

# LET'S GET TO THE FUTURE FIRST

The world as we know it will be unrecognisable in 10 years.

The convergence of different new technologies, business models and the spirit of eager new generations are creating a perfect wind of change. Everything is accelerating together. Change is happening faster than ever before, and what seemed extraordinary yesterday is becoming ordinary today.

Thank you for taking the time to explore this book. We really appreciate your curiosity and open-mindedness; they are the true catalysts to enable the future.

Our goal is not just to discuss what's coming next, but to be a fire starter, to inspire you to be at the forefront of this new frontier. We will outline how we see the emergence of the virtual economy and how we believe you can navigate this new wave, supported with many different cases and examples to make things concrete.

Let's be fearless together in the face of progress and embrace the boundless possibilities that lie ahead.

## 2. A FEW THINGS BEFORE WE START

This book is not a scientific study but an exploration with a narrative that touches our day-to-day lives, our businesses and our societies. It represents a vision of what is, and what could be, tracing a path from today's world into the accelerated tomorrow.

We will be exploring the potential developments and progress of the next decade, while looping back to our present realities. We want to help you solve today's problems with tomorrow's solutions.

The story is not solely focused on the rise of technology. We have tried to dive into the heart of the matter: how the perspectives of business, culture and society at large will evolve in the years to come as a result of many technological breakthroughs.

The models, concepts and ideas in the book come from our insights, our experiences, many discussions and everything we thoroughly believe in. At has acted as our assistant in the process, enhancing our capabilities to formulate these ideas in the best possible way. This is a work of human vision and perspective, augmented by AI, all in true man-machine collaboration mode.

This book aims to be a beacon of optimism. We firmly believe that optimism is a moral duty; it is the force that encourages us to imagine and create a better world for ourselves and future generations. We do not ignore the challenges and obstacles that technology presents: concerns like the overuse of virtual platforms by younger people, potential bias in artificial intelligence and algorithms, or the increasing digital divide. But we will be painting the future with hopeful strokes, confident in our human potential to thrive and prosper in a world surrounded by machines. After all, it is together that we build the future.

Sit back and get comfortable, wherever you are – on a sofa, a plane, the beach, behind a desk, in the comfort of your bed or somewhere with a beautiful view. We sincerely hope we can tickle your imagination and ignite your optimism for the future  $\bigcirc$ 

Enjoy!

## 7, THE HOT TOPICS IN THE BOARDROOM

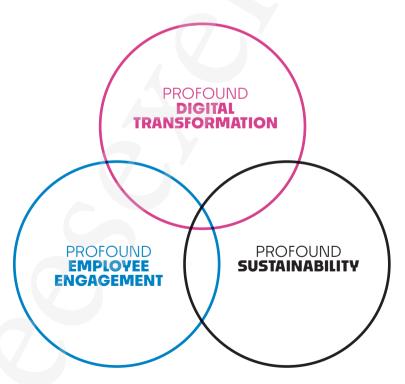
In today's fast-paced landscape, there are 3 hot topics that are keeping business leaders up at night to remain relevant, beyond the general need for growth and survival:

- Profound digital transformation we need to be tech-powered and agile
- Profound employee engagement we need to be attractive for talent
- 3. Profound sustainability we need to be 'more than for profit'

Although organisations have been implementing digital transformation initiatives for over a decade, it is only since the COVID-19 pandemic that the ambitions and commitments to these initiatives have become serious enough to make a real difference. There is now an even higher interest in e-commerce, digital marketing, the automation of processes through AI and robotics, data strategies, cloud applications and everything in between. Business leaders are also looking into building new types of customer experiences in virtual environments and leveraging the gaming habits of younger generations. Gradually, digital is finally moving from the sidelines to the core of the business.

Along with accelerated digital transformation, profound employee engagement is another area getting serious attention. Retaining and attracting talent, building a strong company culture and ensuring employee well-being are very high on the agenda for all types of businesses around the globe. With the current challenges in the workplace around remote and hybrid work, organisations are fundamentally rethinking the 360° experience for their employees. To stay competitive, all organisations need to improve their efforts in this area. New generations of workers have different needs and more options than ever before. Therefore we need to rethink our engagement strategies. This includes developing new-style work environments, creating a strong corporate culture in virtual settings, developing 'leadership from a distance' with remote teams, and much, much more.

### **3 HOT TOPICS IN THE BOARDROOM**



Last but not least, there is a strong need to focus more on environment and social concerns. Profound sustainability is a crucial topic with very high levels of commitment from business leaders and society at large. Corporate social responsibility (CSR) used to be a public relations department with an office down the hallway. Today, it has been rightfully propelled into the centre of decision-making. We need to do better. Organisations must integrate sustainability into their core operating and business models.

To stay ahead of the curve, leaders must embrace the constant change, adopt new technologies, foster a strong workplace culture and sustainable approach, and integrate future-forward thinking into their mindset. The market is not waiting.

We believe that the virtual economy is on the horizon, and that the described hot topics will get accelerated in this new paradigm. Digital transformation will enter a new phase with even more opportunities, employee engagement will be enabled in new ways, and the north star towards true sustainability has an opportunity to get fast-tracked with the advent of new technologies.

### SCOPING THE VIRTUAL ECONOMY



### 1.

# THE DIGITAL ECONOMY AND THE EMERGING VIRTUAL ECONOMY: A COMPARATIVE INSIGHT

The shift from the agrarian society, through the industrial revolution, to today's technologically driven world has been a major transformation in a relatively short time frame. With every passing decade, we are entering deeper into the technology maze. Our economies have made a transition from the purely traditional physical space to a space of binary codes and high-speed data.

It is interesting to look back and understand how we got here. The consumer Internet (world wide web) started in the early nineties with the 56k modems and Netscape browsers. Portals and search engines like Yahoo and Google helped us to organise the read-only 'Web1' and retrieve information. Internet speeds were slow, and you probably remember the early days when we had to pay for every minute we were online.

In a second wave of the Internet, 'Web2', people started to interact at scale online. In 2003 Myspace and LinkedIn were founded; in 2004 Facebook started and Twitter (now X) launched in 2006. These new social media platforms connected the people behind the computers and marked the start of the 'read-write' Internet age.

We are now entering the third phase of the Internet, 'Web3', which coincides with faster Internet speeds, the rise of AI, blockchain solutions and new hardware such as headsets and lenses for augmented and virtual reality.

The digital economy and the emerging virtual economy, though closely related, are two distinct concepts. Understanding this difference is akin to distinguishing between a black-and-white photograph and a 3-dimensional hologram: both represent reality, but in vastly different ways.

But before deep-diving into their differences, why do we even speak about an 'economy'? If we consider the World Bank's definition, 'an economy is an area of the production, distribution, and trade, as well as consumption of goods and services by different agents'. The different agents are consumers, businesses, governments, regulators, financial institutions, and NGOs. And this is precisely why we are speaking about the virtual economy. What is being discussed in this book goes far beyond the simple creation of new revenue streams or business models; it touches society as a whole in how we work, live, move, experience, consume and interact with one another, with interconnected impacts between all agents involved.

### THE DIGITAL ECONOMY: AN OVERVIEW

The digital economy, often synonymous with the Internet economy, is mainly about economic activities in the real world that are supported by digital technologies. Buying products online, paying online, ordering a car through an app... digital products, services and behaviours as

The digital economy is the infrastructure layer, the virtual economy will be the experiential layer. enablers for the physical world. Born from the union of the Internet and the world wide web in the late 20th century, the digital economy transformed industries across the board, from manufacturing and

services, retail, healthcare and automotive, to education, media and entertainment. We saw the rise of platforms, market places, software-as-a-service players, digital payment providers, and so on.

A great example of the digital economy in action is the e-commerce giant Amazon. In the beginning, Amazon disrupted the traditional bricks and-mortar bookstores with its online platform. Today, it has expanded its operations to include a multitude of consumer products, streaming services and cloud computing through Amazon Web Services (AWS). Similarly, Airbnb has reinvented the hospitality sector without owning hotel rooms, and Uber has become a dominant force in the transportation industry without owning cars. You know the story.

### THE ADVENT OF THE VIRTUAL ECONOMY

While the digital economy mainly relies on creating, selling and buying goods and services digitally, the virtual economy goes further, building entirely new realms of economic activities within virtual environments.

In its simplest form we can see how the virtual economy is taking shape in our kids' video games. How they buy virtual avatars, skins and items with virtual currencies. And how much they care about how they portray themselves within these games; their virtual identities.

The virtual economy's roots can be traced back to the early 2000s with the advent of multiplayer online games like World of Warcraft and Second Life, where virtual goods and services were traded for real money.

However, with the advancement of augmented and mixed reality technologies, spatial computing, AI and the blockchain, the scope of the virtual economy is expanding beyond the gaming world. It is creating immersive, interactive experiences that were once the stuff of science fiction.

### **S** CASE IN POINT

### CHRISTOFLE, A BOLD LEAP INTO THE VIRTUAL ECONOMY

Established in 1830, French luxury brand Christofle is renowned for its exceptional silverware, home accessories, and jewellery, melding traditional craftsmanship with innovative designs for nearly two centuries. Known for its commitment to excellence and aesthetics, Christofle (part of Chalhoub Group) has catered to luxury enthusiasts worldwide.

But could you believe that a legacy silverware brand is selling virtual items to teenage youngsters?

Well, in collaboration with Boltable Studio and Prince Clothing, Christofle unveiled a virtual collection on the Roblox virtual gaming platform in 2023 and sold over 50,000 items for people's avatars in just two months. The 10-item virtual collection, featuring standout pieces like the Christofle Crown and Christofle Sunglasses, fastly became a Roblox sensation.

Working closely with Christofle's HQ in France, the designs draw inspiration from the brand's esteemed French lineage, bridging virtual innovation with traditional luxury. As the items continue to gain traction, Christofle's virtual experiment is proving to be a great fusion of old-world charm and contemporary appeal to address the new generations and further solidify its place in the contemporary luxury market.

This case is the ultimate proof, no matter which industry or product you're selling, that it's possible to stay future proof if you're skating where the puck is going.

## WHAT MIGHT THE FUTURE INTERNET LOOK LIKE?

We believe that the next wave of the Internet that will drive the virtual economy will be defined by 3 core ingredients.

### 1. TOWARDS A MORE IMMERSIVE INTERNET

The first ingredient is the development of more 3D immersive experiences. The Internet as we know it today is quite flat and 2D. Think about our main e-commerce sites, where mostly we're looking at pictures in a grid with prices listed underneath. Convenient, but not experience-driven. This does not necessarily mean that every e-commerce website requires a 3D experiential layer. But e-commerce fashion, a \$820 billion industry globally, could certainly benefit from a more immersive buying experience, using 3D, virtual, mixed and augmented reality technologies to create more interactive and engaging virtual environments. By immersing users in realistic and captivating environments, these experiences provide a new level of engagement and interactivity, with endless possibilities for creativity and collaboration.

**3D desktop and mobile experiences:** The immersive Internet will predominantly emerge from 3D experiences accessible through desktop

and mobile devices, without needing any headset. These 3D experiences can vary in complexity and implementation, ranging from simple 3D animations (for example, a virtual shoe you can see in full 3D before purchasing it, or a student doctor looking at a 3D representation of a brain) to fully immersive 3D virtual worlds.

Virtual reality (VR): Virtual reality immerses the user in a completely artificial virtual environment. When you put on a VR headset, all of your real-world surroundings are replaced by a virtual landscape. This can be anything from a video game world to a 3D movie or a virtual recreation of a real-world location. VR is typically characterised by its ability to provide a highly immersive experience, giving users the feeling of being 'inside' the virtual world.

Augmented reality (AR): Augmented reality overlays digital information onto the real world. This digital information can take many forms, such as images, videos, 3D models, or text. Unlike VR, AR doesn't replace the real world; instead, it adds virtual elements to it. The most common example of AR is the mobile game Pokémon Go, where virtual characters appear in real-world locations, or apps such as IKEA Place, which lets you visualise furniture in your own home.

Mixed reality (MR): Mixed reality is a blend of AR and VR, integrating virtual objects into the real world in such a way that they become part of it. For example, an automotive engineer could see a virtual engine projected onto their real desk. This is augmented reality. When they place a new 3D-printed engine part on their desk, and the virtual engine integrates the new part, this is mixed reality. In other words, MR not only overlays, but also anchors virtual objects to the real world (or the other way around), allowing users to interact with these objects as if they were real.

### 2. TOWARDS A MORE DECENTRALISED INTERNET

The second ingredient is about ownership and transparency. In today's Internet, data is stored on servers controlled by a few large corporations. With an increasing need from Internet users to be in control of their own data and assets, technologies have emerged enabling true ownership and transparency in the virtual space.

More ownership: For the first time it will be possible to prove that you really own something on the Internet. Think about owning virtual artwork, virtual real estate, virtual sneakers, virtual gaming assets, etc. Just like in the real world, when we own something, we want proof of ownership through a document such as a contract or an invoice. The next iteration of the Internet will enable ownership and transparency through the blockchain with virtual contracts, allowing people to be in true control of their data and their virtual assets.

NFTs, or non-fungible tokens, use blockchain technology to verify ownership and authenticity, all publicly written in what we call a 'smart contract'. NFTs allow creators to monetise their virtual content, and buyers to own unique virtual assets. This provides new opportunities for creators and businesses to build relationships with their audiences, by offering exclusive content and experiences to those who own their virtual creations.

More transparency: As well as proof of ownership, the blockchain also enables increased transparency, for example to disclose the production cycle of goods or the authenticity of valuable items. From verifying the authenticity of a piece of (virtual) art to tracking the journey of agricultural produce from farm to table, blockchain ensures that every transaction, transfer and transition is transparently recorded and publicly available, fostering trust and accountability in an increasingly interconnected world.

### 3. TOWARDS A MORE EXPONENTIAL INTERNET

The third ingredient is the accelerated proliferation of AI models and platforms, which enable exponential growth in terms of productivity and creativity. Artificial intelligence is evolving at an astonishing pace, and its applications are almost limitless. From autonomous vehicles to personalised healthcare, from generative AI in marketing and innovation to pattern recognition in finance, legal, HR, and so on, AI has the potential to revolutionise every aspect of modern life and business.

By harnessing the power of AI technology, individuals and organisations can achieve exponential growth and unlock new opportunities for innovation and development. AI has been around for many years, but as in a perfect storm everything is accelerating right now. We are entering the true man-machine era.

To summarise, these are for us the 3 defining ingredients of the virtual economy:

