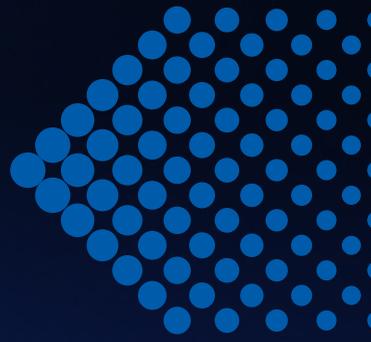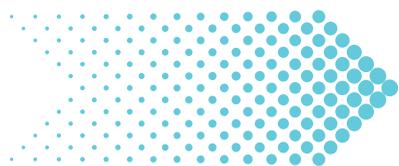# STEFANINI

CELEBRATING

3O

YEARS

of IT INNOVATION

INTRODUCTION

The face of technology began to rapidly change shape as the internet, virtual communication, social media and mobility computing rolled out.

Over the past 30 years, we've seen many changes that have impacted multiple areas of our daily lives: the world in which we live, the people with whom we surround ourselves, our jobs, our homes, our vehicles of transportation, our methods of communication and our everyday activities. Generally speaking, our way of living has evolved from simple to complex and multifaceted—and a large portion of these changes is attributed to technology. As a tech company, Stefanini has also undergone significant transformation, a direct reflection of the changes happening in our society and our world.

When Marco Stefanini founded his namesake company, Stefanini, in 1987, his original intent was to create a training company, where employees would become fluent in everything related to information technology (IT). During this time, IT was relatively infantile but would not stay that way for long. The face of technology began to rapidly change shape as the internet, virtual communication, social media and mobility computing rolled out to everyday consumers and became widespread; high consumer use of these once-restricted technologies created a demand for IT services and support that had never existed before. At this point, Stefanini evolved into more than simply a training company—it became a *providing* company, offering IT services and support to enterprises around the world.

From humble beginnings in Brazil to a present-day global footprint and staunch position within the competitive IT landscape, Stefanini is a company that is always striving to grow in accordance with the demands and necessities that people require. In general, what we decide we require is influenced by what we see around us, and what we see is constantly changing technology. Let's take a look at some of the past achievements in technology that have shaped Stefanini and propelled us to take action toward constant evolution.

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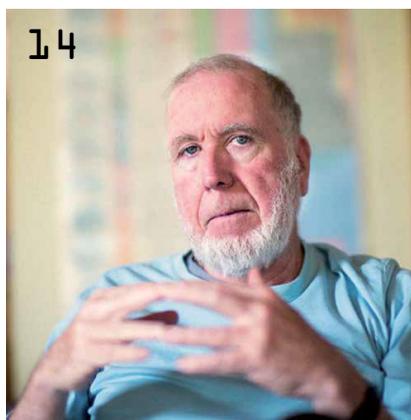
TECHNOLOGY TRENDS OF THE PAST

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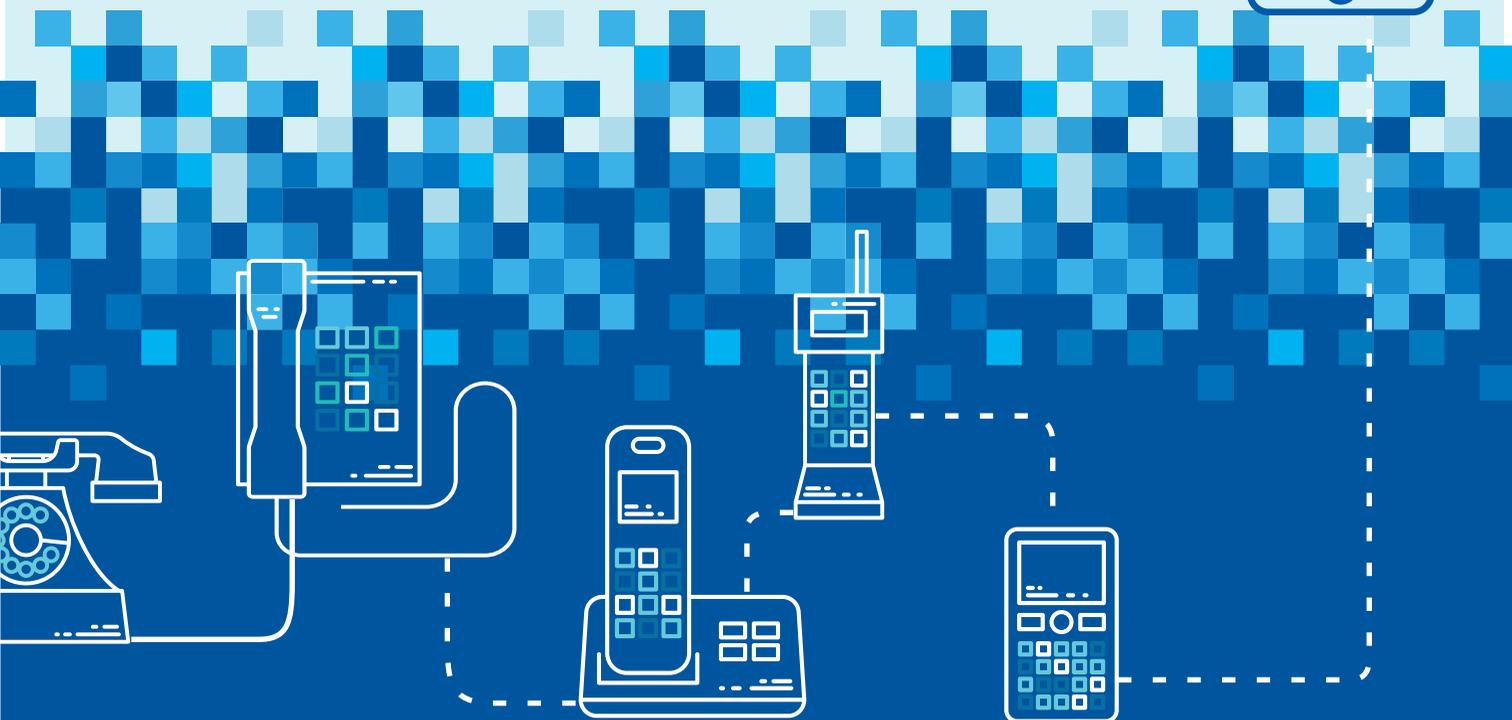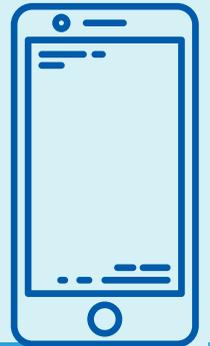
TECHNOLOGY TRENDS OF THE PAST

Software programs designed specifically for mobile phones were created, and these "apps" opened up a whole new world for consumers and enterprises alike.

The past 30 years have been home to the most monumental moments in technology history. The inception of the internet, email and social media has made a drastic impact on how we interact with each other. Perhaps one of the most important factors that influenced communication is mobile technology. Ailtom Nascimention, Stefanini's vice president, explains, "After self-service and connectivity, the next jump was mobility."

While the first claim of mobile phone usage came in the early 1900s, these portable devices did not begin appearing in the hands of the average consumer until the 1990s—also when the 2G mobile network arrived. The two systems competing on the network were the CDMA standard, developed by the U.S., and the GSM standard, developed by Europe.[1] The 2G network yielded many new additions to mobile technology, including SMS text messages and the first forms of downloadable content: ringtones.

From this point on, mobile phone technology evolved to the point that the sole purpose was no longer just to make calls. Not only were consumers able to download ringtones to their phones, but new types of content were springing up underneath their fingertips. Software programs designed specifically for mobile phones were created, and these "apps" opened up a whole new world for consumers and enterprises alike.

Initially, most apps were centered on the goal of improving productivity and retrieving information and were limited to calculators, calendars, stock market and weather information tools. Eventually, apps came to have many different uses, related to gaming, shopping, transportation, communication, health and much more. Now they play a crucial part in many companies' corporate strategies, serving as a way to keep employees connected, updated on company information and productive.
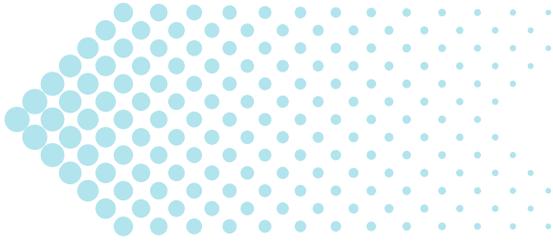
In conjunction with the internet and social media, mobile technology contributed to the digitalization of communication.

In conjunction with the internet and social media, mobile technology contributed to the digitalization of communication, allowing people to reach virtually anyone they want at any time, with no constraints.

Mobile technology heavily influenced Stefanini's services portfolio, as offerings tailored to enterprise mobility were implemented. On-the-go, on-demand technology requires maintenance and services that can optimize it and increase its efficiency, and this is what Stefanini's mobile services were designed to accomplish.

With user experience design services, mobile app development, enterprise mobility management and managed mobility services,

Stefanini grasped the increasing importance of mobility in relation to business strategies. Concurrently, the company underlined the fact that building a solid mobile and wireless infrastructure that supports collaboration and knowledge sharing—but also has strong controls in place, including policy and technology protections—is imperative to business success.

This trend is compounded by Industry 4.0 (the Fourth Industrial Revolution) and the Industrial Internet of Things (IIoT)—both of which are affecting a multitude of companies and have significantly affected where Stefanini is in the present and launched our evolutionary path for the future. While the hallmarks of the first three industrial revolutions are based on

- ▶ Stefanini begins in Brazil.
- ▶ MP3 files are created by a German company.

- ▶ Apple files a copyright infringement against Microsoft for Windows 2.03 and Hewlett Packard for New Wave in comparison with their Macintosh operating system.

- ▶ The first Internet Service Provider, known as "The World," begins servicing customers.

- ▶ Stefanini begins outsourcing services.
- ▶ The World Wide Web is invented by Tim Berners-Lee.

- ▶ The first web server outside of Europe comes online.

1987

1988

1989

1990

1991

1992

- ▶ The touchscreen mobile phone and personal digital assistant, IBM Simon, is introduced and considered to be the first smartphone.
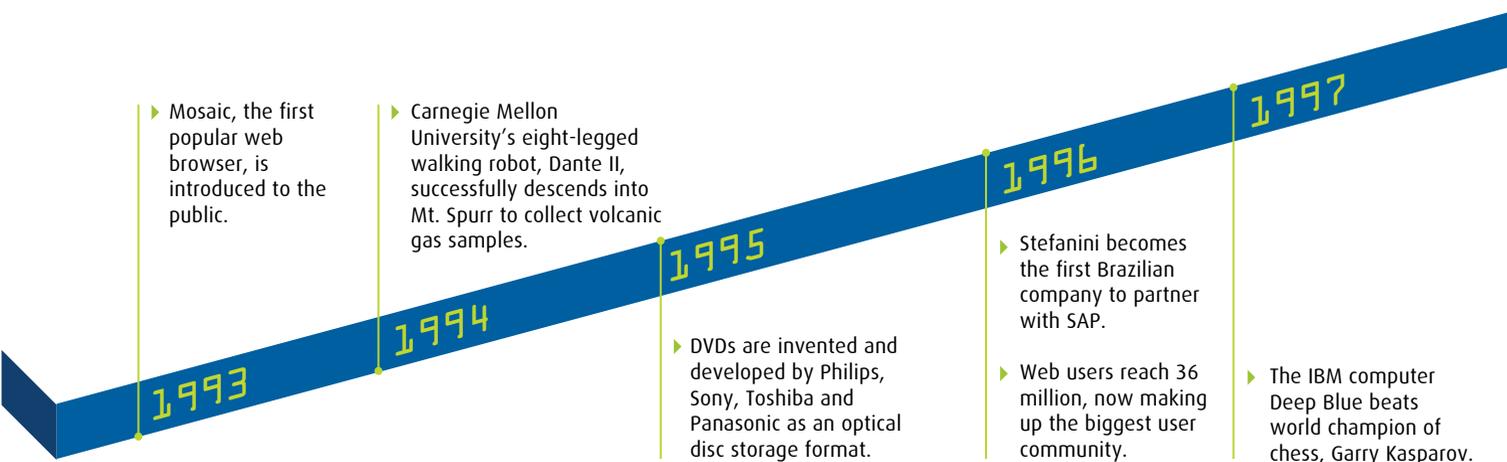
30 Years, 30 Facts

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The Fourth Industrial Revolution is considered to be a "smart factory," which entails connecting devices and assets.

steam, electricity, the assembly line, mass production and computers, the Fourth Industrial Revolution is considered to be a "smart factory," which entails connecting devices and assets in order to monitor data and processes generated by supply and value chains; the goal of this process is to create real-time control, logistics management and decentralized decision-making with little input from human operators.[2]

In other words, Industry 4.0 is driven by digital transformation, specifically in its application to manufacturing. This initiative aims to help manufacturers eliminate substantial amounts of operational inefficiency, with endless possibilities to automate and shorten processes for improved savings in operations,

maintenance and energy. Likewise, with IIoT—which is focused on a broader implementation of internet-connected technologies that span many industries—computers and automation have merged to create a new pathway to conducting business.

Innovations like Uber and Airbnb have emerged, reducing bureaucracy and the gap between supply and demand. The processing capacity of supercomputers has landed in the hands of almost every individual, and the world is essentially an arm's reach away.

1993
▶ Mosaic, the first popular web browser, is introduced to the public.

1994
▶ Carnegie Mellon University's eight-legged walking robot, Dante II, successfully descends into Mt. Spurr to collect volcanic gas samples.

1995
▶ DVDs are invented and developed by Philips, Sony, Toshiba and Panasonic as an optical disc storage format.

1996
▶ Stefanini becomes the first Brazilian company to partner with SAP.

▶ Web users reach 36 million, now making up the biggest user community.

1997
▶ The IBM computer Deep Blue beats world champion of chess, Garry Kasparov.

30 Years, 30 Facts

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- Tiger Electronics launches the Furby electronic toy, the first domestic robot.

- Pen drives —also known as USB drives, flash drives and thumb drives—are introduced.

- AOL announces it has acquired Time Warner for $164 billion in stock and becomes AOL Time Warner.

- The first Stefanini branch in the U.S. opens.

- Steven Spielberg's movie *A.I. Artificial Intelligence* is released worldwide.

- The consulting firm Gartner finds that approximately 1 billion PCs have been shipped worldwide from the mid-'70s to 2002.

- Andy Rubin founds Android, initially starting as an operating system for digital cameras.

- Facebook, Gmail and Firefox launch.

1998 **1999** **2000** **2001** **2002** **2003** **2004**

- Stefanini obtains certification for CMMI Level 5.

- YouTube is founded and comes online, starting as an online dating site.

- Twttr, currently known as Twitter, launches.

- Stefanini is the first company in South America to be included in The Black Book of Outsourcing.

- The first Apple iPhone with iOS is released.

- Stefanini's Canada branch opens.

- T-Mobile's G1 phone (HTC Dream) is the first phone to be released with Google Android 1.0.

- Stefanini obtains certification for MPS.BR level A.

- Someone with the alias Satoshi Nakamoto introduces the internet currency, Bitcoin.

- Stefanini acquires CXI in the U.S. and Information & Technology in Colombia.

- Steve Jobs passes away, and Apple announces its virtual assistant Siri.

2005 **2006** **2007** **2008** **2009** **2011**

- Stefanini begins its innovation project and is recognized as the fourth most innovative company in Brazil by Fast Company.

- Time Magazine names the hacker group Anonymous one of the "100 most influential people" in the world.

- Stefanini acquires RCG Staffing in the U.S.

- Edward Snowden begins to leak classified NSA information in June 2013, which violates the Espionage Act of 1917.

- Stefanini merges with HMI Engineering and also launches Inspiring, a new Stefanini company focused on telecommunications.

- Apple releases the Apple Watch.

- Stefanini acquires Sysman in Colombia.

- The development of self-driving vehicles increases.

- Stefanini celebrates 30 years of innovation and digital transformation.

- Artificial intelligence and the Internet of Things (IoT) become more prominent.

2012 **2013** **2014** **2015** **2016** **2017**

- Stefanini creates big data subsidiary Datastorm and also obtains ISO 27001 certification.

- HTML 5 is announced.

THE FUTURE OF TECHNOLOGY

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THE FUTURE OF TECHNOLOGY

While many of these trends are already set in motion, they will continue to gain traction within the coming years, and Stefanini is prepared to keep pace with them.

With a solid foundation of technologically savvy employees and a thirst for innovation, Stefanini has positioned itself as a company that is always striving to evolve. Our dedication to devising new ideas, new methods of performing typical tasks and new ways of thinking about the world in general propels us to continually move forward to align ourselves with the ever-changing technology trends. While many of these trends are already set in motion, they will continue to gain traction within the coming years, and Stefanini is prepared to keep pace with them.

In today's society, we are able to connect with other people around the world at virtually any time, collaborating and sharing content with ease; we reach out to our social networks and communities for information and input on everything. Social media's power to influence is incomparable, prompting companies to plan their communication strategies with the social aspect in the forefront of their focus. As the way through which we utilize social media continues to grow, relationships between businesses and consumers will likely become closer than ever, with consumers playing a paramount role in the development of products.

Community engagement will soar, and businesses will depend upon consumers to assist with promoting and even creating products, based on needs, wants, convenience and more.[3] Likewise, consumers will rely on businesses to turn out the exact products for which they ask, paying close attention to their feedback communicated through social media outlets. This type of socially organized structure and mutually beneficial way of working together will yield a much more interactive business-consumer culture. Zenith Media's Denise Rubino explains, "by 2038, customers' experiences will be used to refine products and services, foster innovation and bring new ideas to market."[3]

The New Customer

In the future we'll see a "paint bucket effect" of technology, as it spills over into almost every facet of our daily lives and changes the way we go about performing everyday tasks; one area that we expect to be highly impacted is shopping. According to Zenith Media, one example will be the creation of "i-streets," an amalgam of physical retail stores and highly interactive digital technology that will change traditional shopping experiences.[3] The central focus of these technologically-enabled

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With virtually infinite information, data, research, facts and knowledge at our fingertips, we have the ability to educate ourselves on how the things we do impact our daily lives.

shopping centers is customer-driven and experiential, delivering an unparalleled opportunity for customers to engage with products before they buy them.

Through personalized, digitalized and revolutionary methods of creating, distributing and marketing products, the ordinary shopping experience will transform and become interactive, multisensory and immersive—shifting from simply seeing and feeling a product to experiencing a product on multiple levels, all structured around individual, personal needs, behaviors and interests.[3]

While virtual shopping will continue to be on the upswing, especially in alignment with the prevalence of mobile devices, the need for tangibility will continue to stay relevant in stores, with 3D printers enabling on-demand physical products to place right in the customer's hand.

With virtually infinite information, data, research, facts and knowledge at our fingertips—and a steady stream of it bubbling from news outlets, social media platforms and more—we have the ability to educate ourselves on how the things we do, the ways we act and the elements with which we surround ourselves impact our daily lives. As obtaining this information continues to

improve in terms of ease, as well as quantity and quality of content, it allows us to make better choices and improve our wellbeing.

This type of environmentally aware and concerned way of thinking is extending to the larger picture, affecting businesses and governments' mindsets. In the coming years, it is likely that we will see an extensive environmental and socially responsible conscientiousness of the way products impact our livelihood. We will be able to view information about products through augmented reality features on their packaging, informing us about environmental and health-related impacts.

New Forms of Technology
The boundaries that once designated the limitations of technology are fading away into irrelevancy and inapplicability as new forms of technology are becoming seamlessly integrated into our lives every day. The internet and its capabilities have surpassed what was ever initially imagined, as it's no longer enough to access the internet from your computer or mobile phone; connecting to the internet, and its wealth of information and social networks, has become second nature.

All it takes to connect is putting on a smart watch, smart glasses or other similar devices. Time magazine describes the Internet of Everything (IoE) as "a catch-all phrase to

In the next 30 years, it is forecasted that the number of objects designed for connectivity will increase.

describe adding connectivity and intelligence to just about every device in order to give them special functions."[4]

With IoE comes connectivity between virtually everything: people and objects of all sorts are tied together, and interaction is more accessible than ever before. In the next 30 years, it is forecasted that the number of objects designed for this type of connectivity will increase. Smart watches, activity trackers, smart glasses and similar products will become so ubiquitous that virtually everyone will use them in their daily lives. Additionally, this kind of intelligent technology will likely evolve to include microchipping, under-the-skin devices and other methods of connecting not only our objects but also ourselves—providing a convenient, technologically advanced way to tailor-make our everyday experiences for a more efficient way of living that speaks to our individual lifestyles.

Social Media and Content Creation

In the age of Instagram, Snapchat, YouTube, Facebook and Twitter, among others, people have virtually limitless options and avenues through which they can create and disseminate their own content. In the coming years, this will become even more widespread. Moving beyond simple self-expression, content created by the general public will become as widely publicized as news and other content created by professional media outlets and organizations.

In determining what content should be created, collective input and collaboration will occur in the public forum—with news and media outlets strongly valuing and depending on "the voice" of the everyday person and addressing their comments, opinions and ideas. Though user-created content will be abundant, content created through professional media and entertainment outlets will still maintain its reputability and value.

Changes on the Horizon

When considering all of the changes on the horizon in the future, demonstrating optimism is imperative. According to business consultants, the next 12 years will be spectacular. There is a strong marketing discourse disseminated in the market, and it translates into the expression "digital transformation." The best way to prepare yourself is to understand that digital transformation is not just about implementing a new tool, raising your company's technology budget or making any incremental improvement in your business. "Leaders need to take a step back from focusing on immediate needs," says futurist John Mahaffie. "Only then will you see what a new

"Leaders need to take a step back from focusing on immediate needs," says futurist John Mahaffie. "Only then will you see what a new technology can mean."

technology can mean." In other words, the central focus in a company's periphery often pales in comparison to what the full view of digital transformation will entail.

Therefore, the main competitor is change. This explains why the automotive industry is more concerned with Google and Tesla than its direct competitors. "It will be a matter of survival for the business," warns Strategic Futures consultant Ron Gunn. "There will be a huge gap between innovators and those who follow the path of the dinosaur. And it's going to happen more or less in the next 12 years." These innovations contradict traditions. Experts say that the future has already arrived, but not even the most creative science fiction writer can imagine what these new business models will be like.

Who will disappear, who will survive and who will be a great success in this new digital world? No one knows because this new age of digital transformation is still in its early stages. Technologies that have yet to fully develop and reach their potential include artificial intelligence, controlling devices and the cloud, neural networks, with systems learning and blockchain.

All of these technologies will enable digital currency, secure transaction authentication and tracking. As John Mahaffie hypothesizes, mobile devices will disappear, and we will have nothing to carry. The technology and services we need will be embedded and inherently present in everything with which we interact—recognizing us and serving us. To make this possible, chips will contain built-in artificial intelligence, so that everything will be automatically connected.

The Shift to Digital

As new opportunities arrive, we at Stefanini must position ourselves to catch every one that comes to us. We may not always have a clear view of their origins or the manner through which they will arrive, but we must ensure that we are always primed to seize these moments—whether that happens through investing in innovation, understanding technological tools or enhancing our broad portfolio that has allowed our company to master the rules of business. Now, as a $1 billion global company with a presence in 40 countries, Stefanini leads the path of digital transformation and maintains a forceful position as one of the largest integrators of digital solutions.

INTERVIEW WITH
KEVIN KELLY

Stefanini

Kevin Kelly

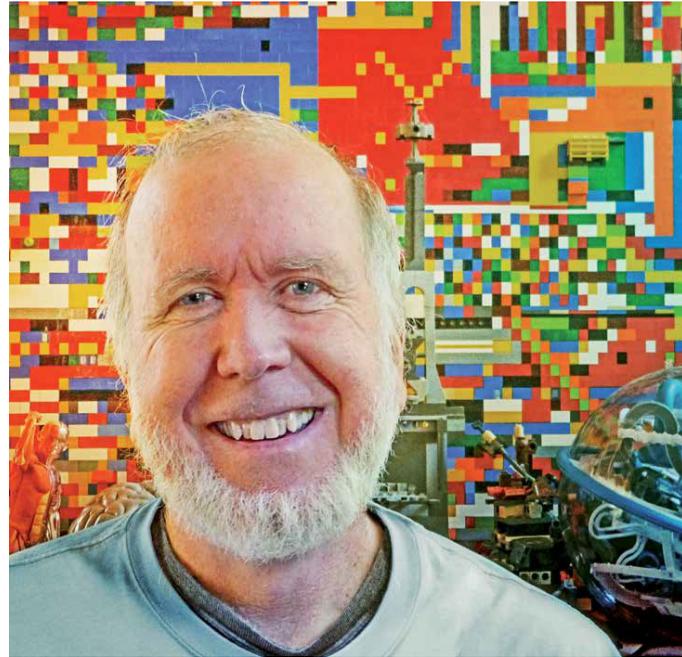**Stefanini**

INTERVIEW WITH KEVIN KELLY

Much of what will happen in the coming decades is determined by technological trends that are already in place. In his book "Inevitable," Kevin Kelly, co-founder of Wired magazine—a reference magazine in innovation and creativity—reinforces that the ways we shop, work, learn and communicate will soon be totally revolutionized.

In this interview with Stefanini, Kevin Kelly explains, "By the end of the century, 70% of current professions will be replaced by automation." According to the author—who was also a consultant on Steven Spielberg's science fiction film *Minority Report*—12 technological forces will change the world: becoming, cognifying, flowing, screening, accessing, sharing, filtering, remixing, interacting, tracking, questioning and beginning. "We're not running a race against the machines. We are in the running with machines, where resistance is not the best choice," says Kelly.

Stefanini: What do you think the scenario will be like in the next 20 years, with everything connected through IoT and the web?

Kevin Kelly: We are definitely moving in the direction to connect all the things that we manufacture. The counter-force, the challenge, the hurdle to making that happen, is actually not the connection which we know how to do. The difficulty and the challenge for the Internet of Things is actually battery power and keeping everything going. The reason why your entire house, and all the objects, is not on the internet is because they would all require a battery that would need to be charged and recharged, and that's a technical achievement that we don't know how to do right now. And we can't see that happening even in 10 or 20 years. So right now the Internet of Things is mostly the bigger appliances that we can plug in, that we can run wires to, so anything on the internet right now has to have a wire into it, coming from the grid, and that limits it. So you can have your refrigerator, you can have your TV, you can have your car, and they can all be part of the Internet of Things. So right now we have the "Internet of Some Things," not the "Internet of Everything."

Stefanini: Do you think all innovations today come from remixing other things that have already been created, or are there still new things to be discovered with 100% innovation, free from remixing?

Kevin Kelly: I think 98% is remixing. I think there is 2%, which is occasionally absolutely new, but it's very, very rare in that most new things are remixed, and I think most successful things are remixed. Meaning, it's very hard to make a great success out of something brand new. So even that 2% probably is not a big hit because it's too new. So there is 2%, but 2% is not necessarily the best sellers; the best sellers are usually remixes of something that already exists.

**Stefanini:** Which technologies will be in the 2% that you mentioned?

Kevin Kelly: I think the invention of the laser was not just remixing, but a brand-new invention which enabled many, many other things, from barcode readers to the DVD. The invention of the laser was not just remixing anything in the past, and I think that things like what we're working on now are solar fusion and synthetic solar energy. That would be brand-new if we're able to do that. It's not like anything that we've done before.

Stefanini: What would be your advice for working in this digital age and transforming this digital mentality into other projects and services?

Kevin Kelly: I think the thing I'm learning about these new technologies is that the companies that seem to do best institute a culture of trying these things out in many small steps, on a constant, reiterative cycle. So rather than try and make a grand digital strategy that you implement into your company that's unlikely to work and would be a disaster—and you don't want to try it again for many years and you only delay—I think the process that seems to work is constant small trials, constant small successes that you can build towards a big change. The culture of the company has to embrace this on an ongoing, daily basis, where every week you're trying something new in a small way, trying a new technology, and most of the time it's not going to work. That's just the nature of it. But you accept those small failures as a learning experience, and then you try and iterate towards a big success over time. But I think if you try to make a grand vision, as the CEO, and a big change all at once, it just doesn't work. That's true about digital, and it's going to be true about artificial intelligence and virtual reality. I think what you want instead is to have your people already working on many small things, knowing that most of them are not going to work, accepting the fact that they're not going to work, but using these failures as a way to learn what we call "failing forward." And so you fail forward, you keep making these little things, and so you have your failures kept small instead of big, disastrous failures.

HOW STEFANINI IS FIT FOR THE FUTURE

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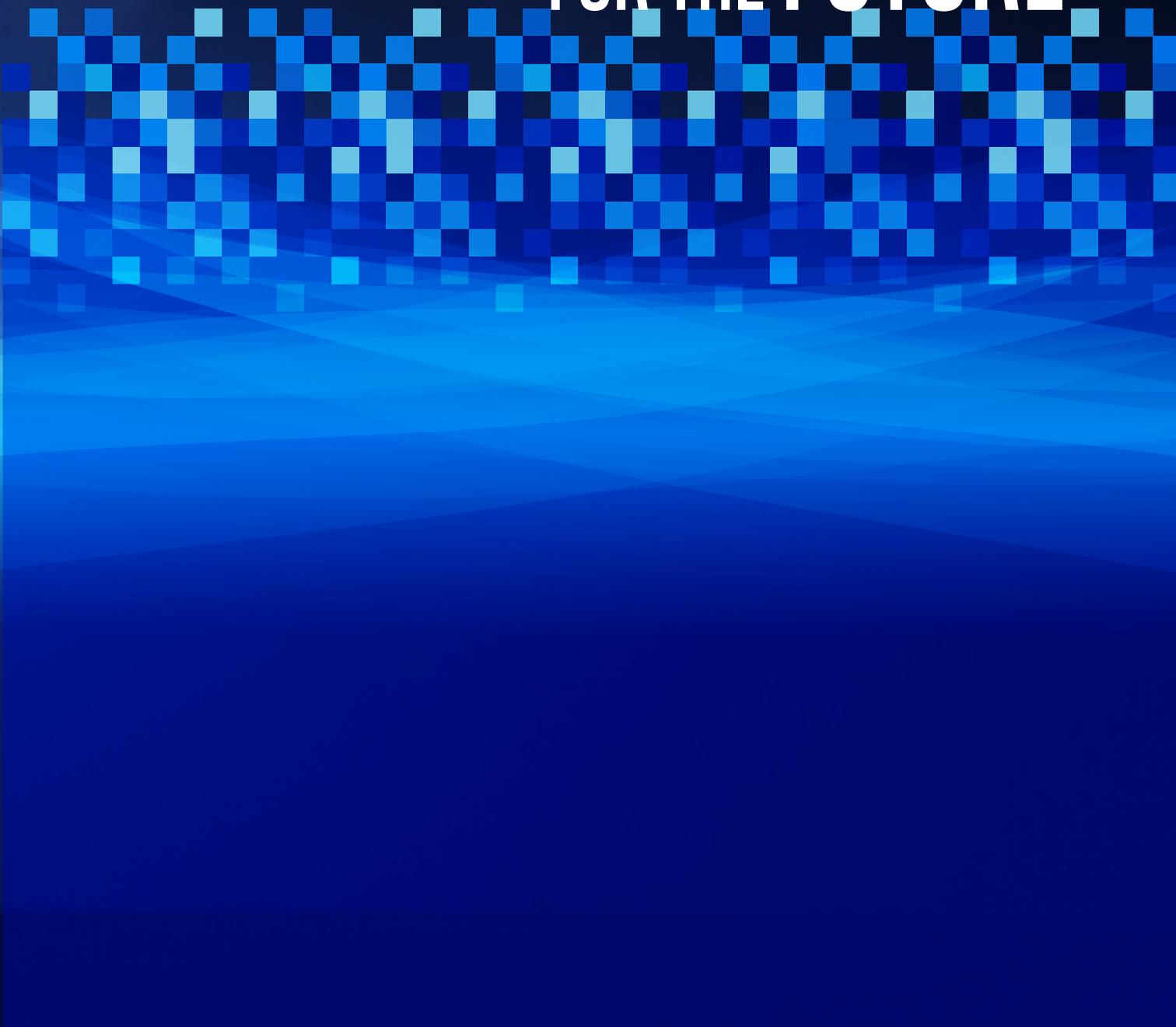
HOW STEFANINI IS FIT FOR THE FUTURE

As the majority of the significant technology trends likely to occur in the next 30 years have already been initiated, Stefanini is keeping an eye on the future with a steady grasp on the present. We will continue to guide companies along the path of digital transformation, architecting the customer's entire business from original, innovative design to complete integration of the most futuristic technology. But most importantly, within our DNA is the ability to react to crises, not only diverting us from the unexpected but also helping us benefit from challenges and emerge from them with an increased sense of preparation and strength within the market.

Our innovation offers and 2020+ platform are designed to increase ease of use and efficiency for business processes in all industries. Sophie, Stefanini's artificial intelligence platform, can simplify and streamline many processes that are currently performed by human agents, allowing humans to shift their focus to business areas that require traits like creativity—which automated technology and artificial intelligence cannot duplicate.

Stefanini has become a leader in the digital revolution and earned the reputation of a dependable business partner that companies can rely on—not only transforming their current business but also their career paths for the future, driven toward innovation. Throughout our 30 years, we have grown and transformed to become a company that values our people and always strives to innovate, placing a heavy emphasis on collaboration and the contribution of new ideas that will help fuel our future, which is always changing.

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