



THE POST-PANDEMIC STRATEGY

Digital Transformation in Fintech and Healthcare

An ebook by  **maxcode**



INTRODUCTION

The COVID-19 crisis has brought about years of change in the way companies do business. During the pandemic, consumers have moved toward online channels, and companies and industries have responded to this shift. According to a [McKinsey Global Survey of executives](#), their companies have accelerated the digitization of their operations by three to four years.

Still, where does this leave us?

Even though companies have adapted rapidly to the new needs, and the response to the COVID-19 changes happened at a fast pace, the level of competition and staying relevant on the market now has a new layer of technology required.

And with the changes adopted that are likely to stick for a few years and bring a new range of profit to businesses, there are some questions up in the air: is my company a true competitor that takes advantage of the new digital technologies on the market, and – if not – how do I become one?

With this in mind, we have drafted the present ebook that will guide you through new trends emerging as part of digital transformation, in both finance and healthcare. We have also built a list of advice and technical advancements to adopt that can help your company reach the growth that you seek, while embracing disruption as part of the post-pandemic strategy.

Jules van den Berg

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DIGITAL TRANSFORMATION AND FINANCIAL SERVICES IN THE PANDEMIC

For the past few years, digital transformation has played a significant role in business strategy for many companies in any industry. A turning point in this process was the COVID pandemic, which has profoundly impacted both consumer behavior and businesses. The shifts that we are now witnessing are unlikely to be transient but rather new realities that need to be addressed on many levels within companies but also by the regulatory bodies.

Even before the pandemic, 2020 was expected to be [the year of digital products](#). Although 2020 will always be associated with the pandemic, in years to come we may also look back on it as a time when rapid shifts were witnessed, businesses and consumers finding new ways of working together and new ways to do business, to transact. The value and significance of digital are now intersecting with a sense of assumed urgency. Be it to ensure that employees are able to work from home (or from anywhere) or consumers are given the same level of convenience when shopping, the security and accessibility of all types of interactions and exchanges in the digital space are now paramount.

Digital transformation reaches an unprecedented level

Personalized, real-time, seamless customer experience (CX) is not something new when it comes to consumer expectations. In particular, gen Y and younger are demanding experiences that complement their digital lifestyle. In this respect, digital capabilities, data-driven business models, and customer-centric approaches have been embraced for the past years by businesses in every sector. Initially driven by the demands of customers, this trend has been accelerated by the pandemic.

As Deloitte's 2020 report on [challenges to digital transformation](#) shows, core business improvements usually show in business performance within a few months, but transformational breakthroughs take 5 to 10 years up until visible benefits start to emerge. Moreover, in recent months, it has become clear that digital transformation is no longer a "nice to have" but generally considered a critical enabler of any business strategy. True digital transformation goes even beyond focusing on consumer needs and responding rapidly to any sudden changes in the market. The business model and organizational culture are usually the levels where any transformational, innovative change is refined, consolidated, and ultimately assimilated into the core of the business. Now, with a post-pandemic future still unclear, we need to find new ways of working, transacting, and building capabilities to ensure business continuity and relevance.

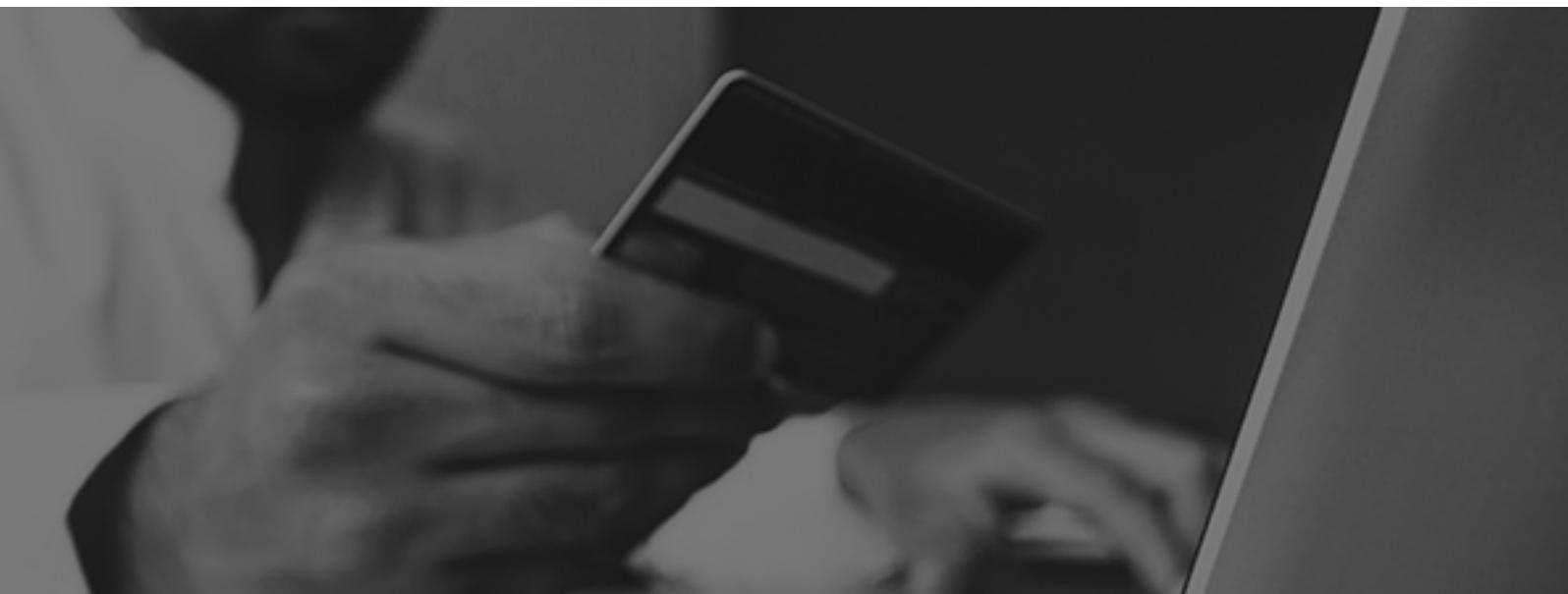


On European ground, we see that digital transformation is safeguarded and complemented on a regulatory level. The European Commission has recently proposed an ambitious reform of the digital space, a comprehensive set of new rules for all digital services that operate in the European Union: the [Digital Services Act](#), with the mission to ensure a safe and accountable online environment, and the [Digital Markets Act](#), whose purpose is to create a fair and open digital market. The new rules are said to protect consumers, foster innovation and competitiveness, and support the scaling of smaller platforms, SMEs, startups by lowering compliance costs and streamlining access to consumers.

“ This “Digital Decade”, at least in Europe, will bring new opportunities for companies in many industries, but we expect to see a lot going on in the financial space. Payments become ubiquitous, “[anywhere commerce](#)” is closer than ever, access to investment and loans is prone to more disruption are just a few aspects that demonstrate how dynamic this space is.

Financial services industry’s take on digital transformation

Pre-pandemic, especially in the fintech space, we were already accustomed to developments towards innovation and consolidation. Endowed with a huge consumer base, big tech players are constantly eyeing the financial products and services space, and relatively recently we’ve seen big corporates and regulatory bodies showing interest in digital currencies. In this landscape, the digital native businesses, such as neobanks, have proved so far very efficient in rapidly increasing their customer base and offering customer-centric propositions. Take for example Nubank, who is said to have reached [25 million consumers in Latin America](#), Monzo, Revolut, or n26. Their simple, customer-centric business proposition has enticed especially the younger generations with services such as overdraft cushions or early wage access. Even though [many still struggle to improve profitability](#), their success in reaching a huge customer base is perhaps unprecedented in this space. As we can easily see, the experience is perceived as gaining more value than institutional stability; a recent study even shows that [nine out of 10 banks, fintechs, PSPs, and payment intermediaries](#) agree that customers’ expectations have changed and that convenience is now key.





This current digital vision in the financial services space is accelerated by the pandemic, when mere expectations, “nice to have’s” are turned into an actual need for more accessibility, stability, security, and convenience. Many companies in this space are better able to serve customers, collaborate with partners, and respond to change as they have embraced new ways of implementing their technical infrastructure. The way some fintech companies are scaling nowadays is due to their digitally native nature. So far, when it comes to infrastructure, cloud computing has proven to be the foundation that positions a financial company as a serious competitor in this ever-changing, demanding environment.

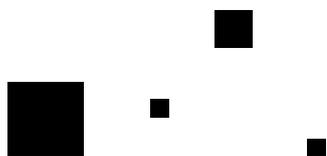
Initially, financial institutions have adopted the cloud beginning with proofs of concepts (PoCs), Software as a Service (SaaS) solutions, or front-office functions but not necessarily core functionality. As cloud became more mature, companies have started moving even core processing to the cloud. Public cloud providers like AWS and Microsoft Azure are sometimes proactively developing services specifically for the financial sector, while equipment manufacturers like HPE, Dell (VMware), and Cisco are constantly investing in building tools that enable simpler connectivity between on-premises data centers and cloud. Keeping up with innovation is easier when you can count on the resiliency and availability of the public cloud environments. Moreover, hybrid cloud was recently declared by Forbes [the winning enterprise architecture](#), due to its adaptability especially when it comes to enabling faster change in moments of uncertainty and disruption. Recently, [Azure Quantum](#), the public cloud ecosystem for quantum solutions, has been opened for business, allowing the building of solutions based on the most recent innovations.

What makes cloud even more applicable when it comes to core transformation in financial services is its relevance for legacy systems as well. In the case of banks and other FIs, legacy platforms have been around for decades. Due to their product-centric approach, traditional players often layer new models on top of the old ones, which has led to complicated business processes that are difficult to automate. Even so, a lot is going on in this space, as we see banks moving core infrastructure to the cloud. Recently, [Deutsche Bank](#) announced its intention to replace large parts of its core banking system with alternatives powered by Google. The bank moves to the cloud in a bid to modernize its internal systems, thus making sure it stays relevant in this ever-changing space.



Final thoughts

Businesses that embrace the idea of a digital future are the ones that will be able to navigate any market changes. In the financial services space, the gaps between traditional players and challengers have not disappeared entirely, leaving a lot of room for new opportunities and innovation that brings benefits to consumers.



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EMBRACING NEW TECHNICAL TRENDS TO MAINTAIN BUSINESS RELEVANCY

COVID-19 has affected every industry, causing businesses to revise budgets, amongst many other operational matters, in order to manage the effects of the pandemic. With the viability of several companies at risk as a result, companies are striving to be in a position of financial stability, and adopting new technical trends as part of digital transformation is definitely one way to maintain business relevancy in this new context.

Moreover, the goal is not just surviving, but also thriving, as global competition is fierce, and the pandemic environment has made it even more aggressive. This new setting forces CEOs to analyze their companies, so that they can first take advantage of areas they can leverage to improve efficiency and reduce costs in order to focus on generating revenue activities. Bringing more efficiency to the daily workflow is set to become the focus of many businesses in the future, and the only way further is by embracing technological advancements.



#1: The old strategy has changed, or needs to change

In the past 12 months CEOs have been faced with overwhelming challenges and uncharted territories as they continue to navigate the impacts of the COVID-19 pandemic. And the context will carry on, as the pandemic's progress, strength or recurrence in different geographies is affecting recovery strategies, even with a vaccine present, whose distribution is also different and may delay the "return to normal" we all expected. Course correcting, re-evaluating scenarios, and strengthening the ability to respond have become must-have skills in the past 12 months, and those that have not yet adapted (and managed to survive on the market) are now competing with companies that have boosted their technology, business plan, and strategy by at least 2 to 4 years. The market we will all be present in once the pandemic will be over will have a different setting, and our mindset needs to change as well.

#2: The customer is different, embrace this

The global pandemic has changed consumer experiences, attitudes and behaviors. Companies will need to consider the impact on the way they design, build and run the experiences that people need and want. Which means an opportunity to reimagine digital strategies that capture new marketplace opportunities as well as new digital customer segments.

#3 Finances have taken a hit, make the right choices

From plummeting sales and revenue, to increased costs, CEOs and their companies globally have taken a hit in the past year. There is an immediate need to adapt, which may require investments in key technologies, processes and people, investments which can have an immediate impact on the survival of the company and its financial health going forward.

#4 Invest in the right technology

Even before the pandemic, many organizations faced considerable IT challenges. Now, COVID-19 is pushing companies to rapidly operate in new ways and IT is being tested as never before. New technological advancements adopted at a fast pace will not only ensure that the company will keep its clients and revenue, but that it will also keep the pace with the competition and the trends on the market. Let's have a look at some tech trends that have emerged as relevant and important to have in the past year.



Cloud computing

The current pandemic is expediting the adoption of digital channels and digital ways of working, which are often founded upon Cloud infrastructure. This rapid adoption curve will give companies an opportunity to update their digital risk framework, test resilience and gain further from the benefits of rapid scalability.

API security

One of the results of digital transformation is the increase of number of APIs and web applications. And the risk of vulnerabilities that could be exploited by hackers is directly proportional with this increase. Therefore, it is critically important for companies to manage a secure transition to a digital environment by guaranteeing the user a safe navigation in a secure environment where the data will remain private.

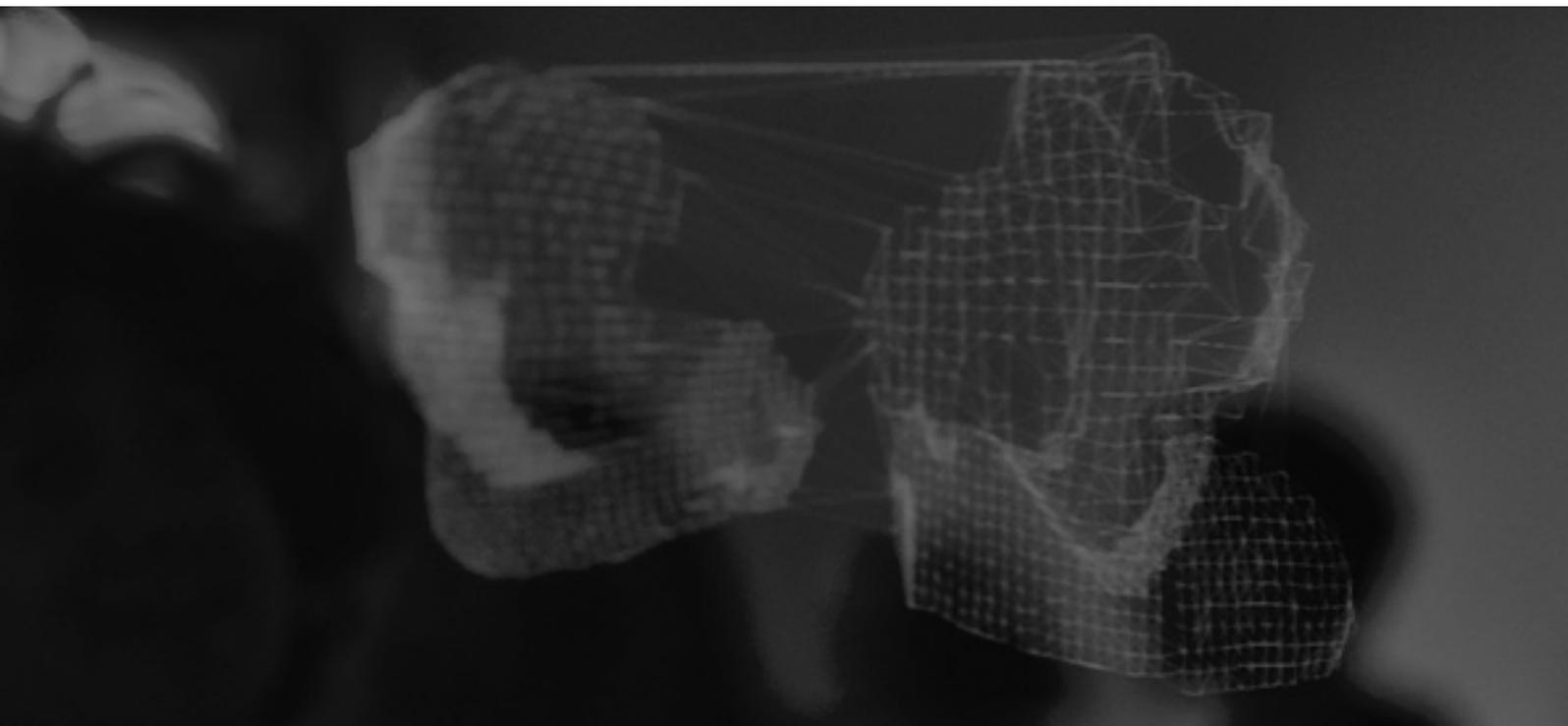
Gartner predicts that [APIs will become the number one application attack by 2022](#), and because it has a major role in the digitalization movement, it is essential to handle all API security gaps.

Microservices

Especially in the current pandemic context, organizations need to have day-to-day processes in sync with IT by focusing on the same goal - a strong relationship between business and IT, which is today's primary key to success. To create this digital transition, organizations should consider a micro services infrastructure for their product. The benefits are obvious:

- *improved reliability* (if a micro service is down, it will not affect the entire app),
- *faster releases* (reduces build time, test execution times, etc.), therefore reduced time-to-market, a huge advantage for the business,
- *scalability and adaptability*, which will help the organization foster new business models and be able to adapt to new developments in the market, as well as be relevant for its customers.

The COVID pandemic was a ramp for hackers to expand their campaigns of attacks against businesses worldwide, so even though cybersecurity was always an important aspect in a business, starting with 2020 it has become critical tech trend. Moreover, the volume of data is rapidly increasing and we find ourselves in need of machines to be able to interpret the data, therefore the value of artificial intelligence (AI) and machine learning (ML) to data analytics is major. Studies show a considerable growth in the adoption of AI in 2021, with [Deloitte reporting](#) that companies have been heavily financing AI technology in the 2020, with 53% of AI adopters spending more than USD 20 million on AI-related technology and talent.



“ *There is a continued demand for cloud infrastructure services, and potential increases in spending on specialized software. Most organizations do not have tech stacks in place and will need help from IT service providers to set up a resilient, flexible and secure IT solution.* ”

Through outsourcing, businesses can focus their funds, reducing expenses by eliminating the need to hire or train new employees and/or the support staff, and thus enabling opportunities for growth. The great advantage in the process of outsourcing is the fact that it allows company owners to build a team of skilled professionals without adding the expense of full-time employees or equipment. With outsourcing, business owners can focus their resources on their company's core needs and spend their time setting new goals and finding ways to achieve them.



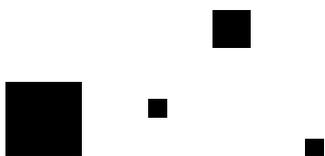
Where to next?

With a plethora of advice and information online on how to approach business strategy for the years to come, it is difficult to know what to listen to first, what to read first, what to do first. The main thing to do when considering future in this new context, is switching to a flexible, growth mindset. Embracing challenges and persevering in face of failures will help in reaching and achieving company innovation.

Building is very important also in this stage, as a stagnant rhythm, although safe and consistent, might not bring the same results in the “future of” scenario, driven by technology adoption and change. Considering future of work tools, for both customers as well as internal business processes may be the difference between a fast, smooth process, and a frustrating user flow that leads to abandonment.



Finally yet importantly, collaborating can become a life raft in this environment – by maintaining a lone-wolf mentality, one can lose opportunities that would not be available otherwise, and be prone to failure or even a closed business. From teaming up with a software outsourcing company for technical improvements, a sales and marketing team for growing a customer base, and even a merger or acquisition opportunity to enhance budget and capabilities, partnering up might be the right answer that can mobilize a company into growth for 2021.



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A NEW ERA OF DIGITAL TRANSFORMATION AND INNOVATION IN HEALTHCARE

Even before the pandemic, the building of sustainable integrated healthcare systems was on the agenda of many companies in the healthcare space. Now the adoption of digital healthcare applications and infrastructures reaches an unprecedented level, the pandemic acting as a catalyzer. From streamlining physicians' work to optimizing systems, improving patient outcomes, reducing human error, or lowering costs, digital applications are required more than ever.

“ *The overwhelming need for pandemic-related assessments and pathways has led to disruption in the priorities across the digital healthcare sector. The rapid shift to telehealth to retain business, pandemic-focused initiatives, and updated policies to accommodate remote care needs implied a lot of effort but also uncovered challenges that can be exploited by tech companies.* ”

The [WHO Global Strategy on Digital Health 2020-2025](#) makes it clear that the following years will be about accelerating the development and adoption of appropriate, accessible, affordable, scalable, and sustainable person-centric digital health solutions. In or out of the pandemic context, developing infrastructure and applications that enable countries to use health data to promote health and wellbeing will bring new opportunities for market players and more discussions among regulators to ensure a level playing field for all market players.

Globally, 2020 was the year of records in digital healthcare. It was the year of companies developing medical devices that aid in the diagnosis, cure, mitigation, treatment, monitoring, or prevention of diseases. According to [CB Insights](#), global digital health funding jumped by 45% YoY and hit a new record: a total of USD 80.6 bln in equity funding was raised across over 5.500 deals. North America, Asia, and Europe all saw a boost in funding year-over-year (YoY). There were 187 healthcare mega-rounds (over USD 100 mln) last year, a new record. Moreover, global telehealth startups raised an unprecedented USD 3.3 bln in the last quarter of 2020.



As we see in other sectors, big tech companies have been very active in meeting their huge customer base's needs. Apple Fitness, Microsoft Cloud for Healthcare, Google Health Studies, Google Cloud's Healthcare Interoperability Readiness Program and 2 AI tools to analyze unstructured medical text, Amazon Pharmacy and Amazon HealthLake are some of the most notable developments in digital healthcare we've recently witnessed from the big tech companies.

Multiple subsectors in healthcare are definitely thriving and prone to even more disruption and innovation. To succeed in digital transformation in healthcare, as it is in other industries, the whole of the company needs to be involved. As Leslie P. Willcocks points out in a recent article in Forbes, generally speaking, [companies usually fail in their digital transformation journey](#) due to their "siloes" approach, a barrier to change that is usually inherited from older business models. Moreover, slow adoption of emerging technologies may reduce risk in the short term, but it leads to growing business risk and diminished competitiveness in the long term. Being aware of the technologies and market trends that are gaining a higher profile in business plans lately is the first step in overcoming the complexity of organizational change and truly ensure digital transformation.

Digital healthcare – essential trends to watch and thriving market segments

Telehealth

Studies suggest an unprecedented upswing in the use of telehealth technologies, the sector expecting even more growth as patients realize the convenience of the telehealth services. [Frost & Sullivan](#) forecasts a sevenfold growth in telehealth by 2025, a five-year compound annual growth rate of 38.2%. Currently, social distancing among physicians and patients will drive unprecedented demand for telehealth. This will imply more room for innovation in communication systems and networks to enable sessions between the patient and provider, or in data gathering and transmission.

Despite the uptake and the visible benefits for multiple parties involved, there are also restraints, mainly related to security, in part due to rapid telehealth rollouts and relaxation of firewall rules to accommodate additional remote-work capabilities. Any time a change to an IT environment is implied, there is a potential risk. Moreover, there will always be cybercriminals looking to exploit tech vulnerabilities. Cyberattacks targeting healthcare organizations have been on a steady uptick over recent years: [32 mln patient records were breached between January and June 2019](#), according to the Protenus Breach Barometer, double the number registered in 2018. [Microsoft also warned](#) about the use of ransomware, including using Java Runtime Environment, to target health systems. Any outdated software that exists in the delivery of a digital healthcare service could pose new and unexpected threats.





Artificial intelligence, Virtual Reality, and wearable devices

AI-powered programs help in analyzing thousands of pathology information related to various diseases to provide highly accurate diagnoses and predict the best possible drug combinations. The healthcare AI-powered tools market is expected to exceed [USD 34 bln by 2025](#), which means this technology has the potential to impact a wide range of subsectors in the healthcare space.

AR & VR, with their [wide range of applications](#), present a huge potential for streamlining patient engagement and treatment. The global virtual and augmented reality in the healthcare market is expected to reach [USD 5.1 bln by 2025](#). From pain relief to treating bipolar disorder, PTSD treatments, pre-operative anxiety relief, or even surgeries, VR has the potential to greatly impact not only the entertainment and gaming industry, as we've been used to so far, but also healthcare.

Another trend related to digital transformation in healthcare comes from collecting health data from medical devices. Among other means through which data is collected, companies are heavily investing in wearable technology devices that can provide up-to-date monitoring of certain types of patients, especially the high-risk ones, to predict major issues. According to a recent report, the global [wearable healthcare devices market](#) is projected to reach USD 46.6 bln by 2025 from USD 18.4 bln in 2020, at a CAGR of 20.5% from 2020 to 2025.

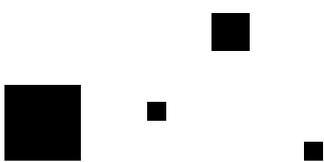
Blockchain

The problem of [fragmented medical reports](#) and the lack of interoperability between systems that should make patient data or staff data available to other organizations and to the patients themselves are two issues that can be addressed by using blockchain technology. According to a recent report, blockchain in the healthcare market is expected to reach [USD 890.5 million by 2023](#), with an increasing number of companies realizing the true potential of this technology, that of ensuring transparency and accessibility in the entire ecosystem.



Conclusion

The digital healthcare space is currently prone to more disruption and innovation as the need to create strong, sustainable infrastructures and systems that would allow for more efficient use of hospital space, staff, technology, and other resources is more stringent than ever. Companies that are aware of the emerging technologies that are worth investing in - or at least exploring - are the ones that will reap the benefits even in uncertain times. The pandemic has brought many opportunities in certain areas of the digital healthcare space that can be exploited to ensure high-level healthcare services. There is still a lot of work to be done, especially for companies that embarked on the mission to streamline operations, ensure organizational resilience, and become competitive digital businesses.



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ABOUT MAXCODE

Delivering smartly engineered software for a worry-free experience.

Since Maxcode's start in 2005, the company has been closely involved in online payment developments in the Netherlands. From being focused on iDEAL (the most used payment method in The Netherlands) and its earliest applications, we have grown into a larger software development company creating sustainable and data-respectful software in Fintech and Healthcare, helping our clients adapt their solutions to the ever-changing markets.

The quality of our code is proved by all successful solutions created by Maxcode for its clients.

LET'S GET IN TOUCH

Contact us for a meeting to discuss how we can support you in creating platforms to meet your customers' expectations.



Andreea Zanfirescu

BUSINESS DEVELOPMENT MANAGER

