TYPEQAST

White paper

How eHealth Changed in the Post-COVID World

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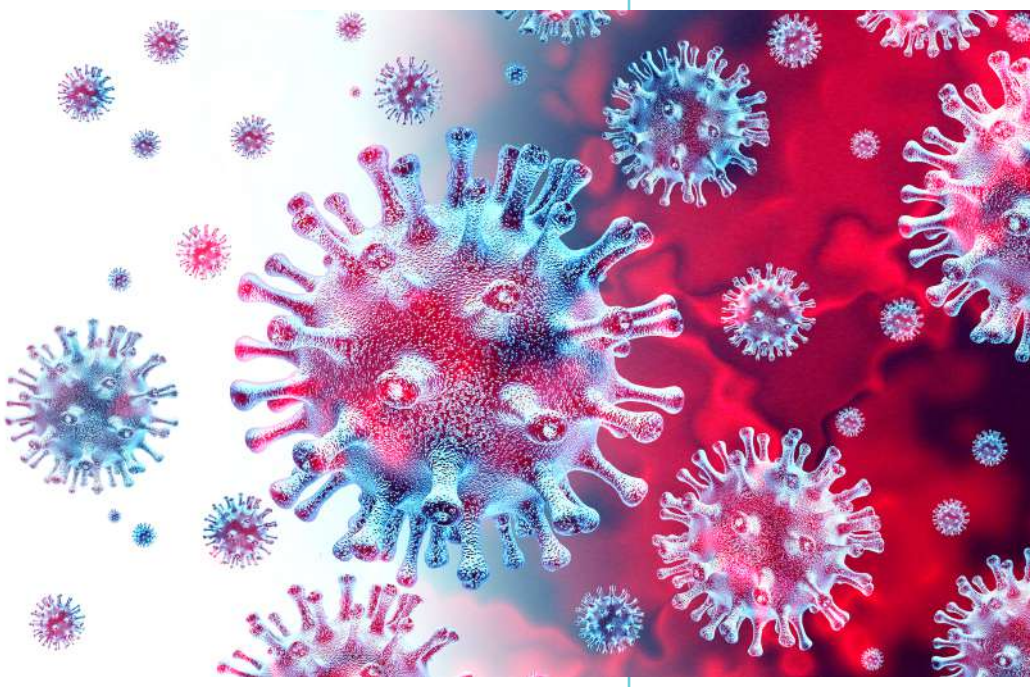
How eHealth changed in the post-COVID world

The COVID-19 pandemic was a wake-up call for the eHealth industry. Although eHealth was already underway before the pandemic hit, the crisis pushed things forward at an unprecedented rate. Millions of people turned to technology to improve their care and manage their workloads. That is the reason why contemporary medical centers and healthcare organizations are now looking for the best eHealth tools, apps, and software to expand their functionality and improve their healthcare systems.

As legacy software and infrastructure can decrease performance, productivity, and security it's important to consider how those systems can be integrated with newer technologies, or how they may eventually be replaced with more reliable systems. Existing digital tools, software, and technology trends began to transform, but by 2022 they're expected to be increasingly integrated into all medical organizations. Their implementation became critical to the success of modern hospitals and care centers.

In this text, we'll take a closer look at how COVID has changed eHealth - and what implications this might have for the future.



The impact of COVID on the eHealth industry

The pandemic has led to an increase in the use of eHealth services worldwide as people are wary of face-to-face contact. The industry has seen a surge in demand for online consultations, telehealth services, and self-monitoring tools. This has been a boon for eHealth companies, which have been able to attract more customers and expand their businesses. The increased use of eHealth services is likely to continue even after the pandemic is over, as people have become accustomed to them and appreciate the convenience they offer. The pandemic has therefore had a positive impact on the eHealth industry, which is likely to continue to flourish in the coming years.

According to research, digital health could represent a potential market of up to **495 billion euros worldwide.**

We know the great role that new technologies play in accelerating decision-making and managing the consequences of the COVID-19 pandemic, but even beyond that, eHealth has enormous potential to transform entire medical practices. As a result, innovation in the eHealth market is likely to continue to accelerate in 2022, with technologies that enable faster and more effective treatment of patients, but also bring new challenges to overcome.

That's why it's important for everyone in the eHealth industry to familiarize themselves with all the trends and challenges that COVID-19 has left behind, and that will shape the years to come.

What is eHealth and what are its benefits?

The term eHealth, in a narrow sense, refers to health practices supported by IT technologies and the use of electronic processes. First of all, eHealth has focused on facilitating all manual processes in healthcare and transforming them into electronic ones.

eHealth systems save time, give each patient insight into their own health, and reduce administrative overhead.

With eHealth systems, patients can view information about their health and share that data with their healthcare providers. For example, patients' entire medical histories are stored in an electronic format that's easily accessible and readable through hospital systems. In this case, there's no need to fill out forms over and over again.

However, in the last two years, eHealth has begun to intensively develop new platforms and software that expand the functionality of existing solutions to respond to the growing number of people in need of medical treatment. The implementation of new eHealth solutions should streamline the customer journey, eliminate frustrations and provide the best experience, but at the same time, it must be easy to use and personalized. To meet all the increased demands, eHealth brings new trends to watch.

Technological health trends to watch

#1 Artificial intelligence in the healthcare industry

Can you imagine having your personal medical assistant with you at all times? A kind of "pocket doctor"?

That's exactly one of the applications of artificial intelligence in eHealth. Artificial intelligence software used in the medical field serves to remind patients to take their medications, help diagnose an illness, or provide recommendations for care and symptom checks.

AI-based chatbots can help automate processes, such as sending data to an electronic health record, and they can also be used to make predictions about a patient's health. For example, AI can identify patterns in a person's medical history that may indicate a risk of certain diseases.

AI-based chatbots can help doctors do more than just treat patients:

- Sort patients - e.g., refer patients with chronic diseases or refer patients to the right specialist based on their symptoms.
- Medical support - e.g., identify drug interactions, select appropriate medications for pregnant and breastfeeding women, and suggest possible diagnoses for patients.
- Computer-assisted surgery or epidemiological prevention

Artificial intelligence has seen a huge boost in the post-COVID world as it's been used in the fight against the virus in areas such as:

- Pandemic detection
- Vaccine development
- Thermal screening
- Facial recognition with a mask
- Analysis of CT images

Machine learning can easily detect pneumonia caused by COVID-19 in the early stages.

#2 Telemedicine

In the first few months of the rapid adoption of COVID-19 in the U.S., 71% of patients had considered telemedicine, while half had already attended a virtual appointment, and the market is expected to reach $185.6 billion by 2026.

Remote medicine took off during the COVID-19 crisis because many patients couldn't even reach their doctors. Thanks to telemedicine, patients who couldn't come in person were able to access quality care. During quarantine, many patients requested psychological support, counselling, or health monitoring in this way.

Thanks to easy and immediate access to doctors, right from their smartphones, patients have widely embraced telemedicine, and that's the trend that will stay and evolve in the post-COVID world. Instead of wasting time booking a doctor's appointment, traveling, and waiting for a doctor to arrive, a patient can attend any appointment from the comfort of their own home. That is why 83% of patients expect to use telemedicine after COVID ends.

Above all, telemedicine has the potential to improve access to healthcare by enabling better coordination of care pathways in different regions. In the future, for example, telemedicine may help patients who live in rural areas or who have difficulty reaching a doctor's office. Research has shown that telemedicine can contribute to care when medical professionals can monitor a patient's condition, such as lung disease, from a remote location. This can result in fewer patients being hospitalised and, in some cases, even deaths.

#3 IoT and Wearables in Healthcare

Have you ever heard of the term "Internet of Medical Things"?

Well, if you follow the Internet of Things (IoT), you can guess what this is all about. The Internet of Medical Things (IoMT) is a trend in eHealth that refers to the combination of IoT (Internet of Things) development with telemedicine technologies.

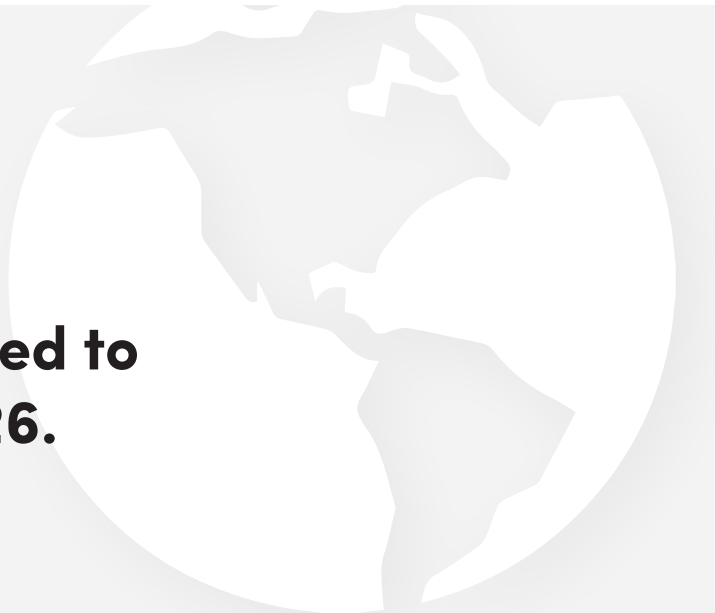
Namely, one of the most profound trends COVID has yet to see is the empowerment of numerous microcontrollers in unison. With a large number of people owning smartphones, watches and other wearable devices, their potential for healthcare applications should be noted.

A survey conducted by Deloitte found that 39% of users own a smartwatch, and some of the basic things a smartwatch can provide are heart rate, pulse, physical activity, blood glucose monitoring, and oximeters that monitor the amount of oxygen in the blood. Thanks to their sensors, these wearable devices allow people to take better care of their own health. In addition, bio-patches and smart hearing aids can also be used to improve patient self-care.

These allow doctors to prescribe medical apps to their patients, which are then reimbursed by health insurance companies. In this way, doctors are putting healthcare more in the hands of the patients and starting to give them more responsibility for themselves.

Healthcare IoT experienced a major boom in 2017 when the first edible electronics were approved. These were smart pills that not only serve as medicine, but can also provide valuable information about patients to healthcare providers.

However, with IoT devices monitoring and alerting technicians to problems with complex medical equipment such as X-ray machines, CAT scanners and magnetic resonance imaging scanners, hospitals can perform better predictive maintenance and avoid costly downtime.



The global market for IoT medical devices is expected to reach $94.2 billion by 2026.

#4 Apps for employee wellness

As the pandemic and prolonged quarantine have taken a toll on people's mental health and created significant challenges for them when they return to the office, employers are increasingly recognizing that wellness apps could be helpful for their employees. These apps are also expected to reduce the number of sick days employees take, which in turn, would increase productivity.

Employee wellness apps could save the U.S. healthcare system $7 billion each year.

Adopting employee wellness apps has several benefits: it increases employee satisfaction in the workplace, increases trust in eHealth services, lowers costs for providers and patients, and enables people to personalize self-care by allowing users to create a personal profile that then tracks important metrics such as weight, calorie count, and blood sugar levels. With personalized health care, people have more control over their health. According to a report from SHRM, 48% of U.S. workers say they would be more confident in digital health tools if their employer offered them.

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#5 Cloud data

Cloud computing is playing an increasingly important role in healthcare by enabling organisations to quickly access and process data. Healthcare organisations have a large amount of data, such as personal information about patients, medical histories, appointments, insurance company information, payment records, etc. It is not easy to process and handle all this data manually, which is why cloud-based technologies enable better information management.

Moreover, cloud computing enables fast data access and processing, which can help healthcare providers be better informed. For example, **cloud-based solutions, such as electronic health records (EHRs) improve the efficiency of healthcare organisations and make it easier for patients to access the care they need.**

Thanks to cloud computing, doctors and medical staff can access test and analysis results online, track treatment dynamics, and receive notifications of any updates. Therefore, storing data in cloud services allows professionals from different hospitals to access it at any time, which increases the accuracy of diagnoses and reduces the risk of misinterpretation.

#6 VR and AR technologies

Virtual reality (VR) and augmented reality (AR) are technologies that were once reserved for video games and other types of entertainment. Today, VR and AR have a wide range of practical applications, especially in healthcare. They can be used in surgical training and planning, chronic pain management, and mental health. How does it work?

These technologies are based on simulating real-life situations that allow people to face challenges and overcome their fear through practice. For example, VR and AR help medical professionals improve their skills by practicing medical situations and procedures, such as surgery. According to a study, students who participated in VR training were able to perform medical procedures 20% faster and 38% more steps correctly than a group that received only traditional training.

VR and AR have a major impact on helping people suffering from chronic pain and mental illness. For example, VR headphones help providers simulate real-world scenarios in which people with post-traumatic stress disorder, eating disorders, fear of heights, social anxiety or strokes feel psychologically challenged. In this way, patients have the opportunity to face challenges and overcome their problems through practice.

Thanks to its great potential for the healthcare industry, the global virtual and augmented reality market is expected to reach **$5.1 billion by 2025.**

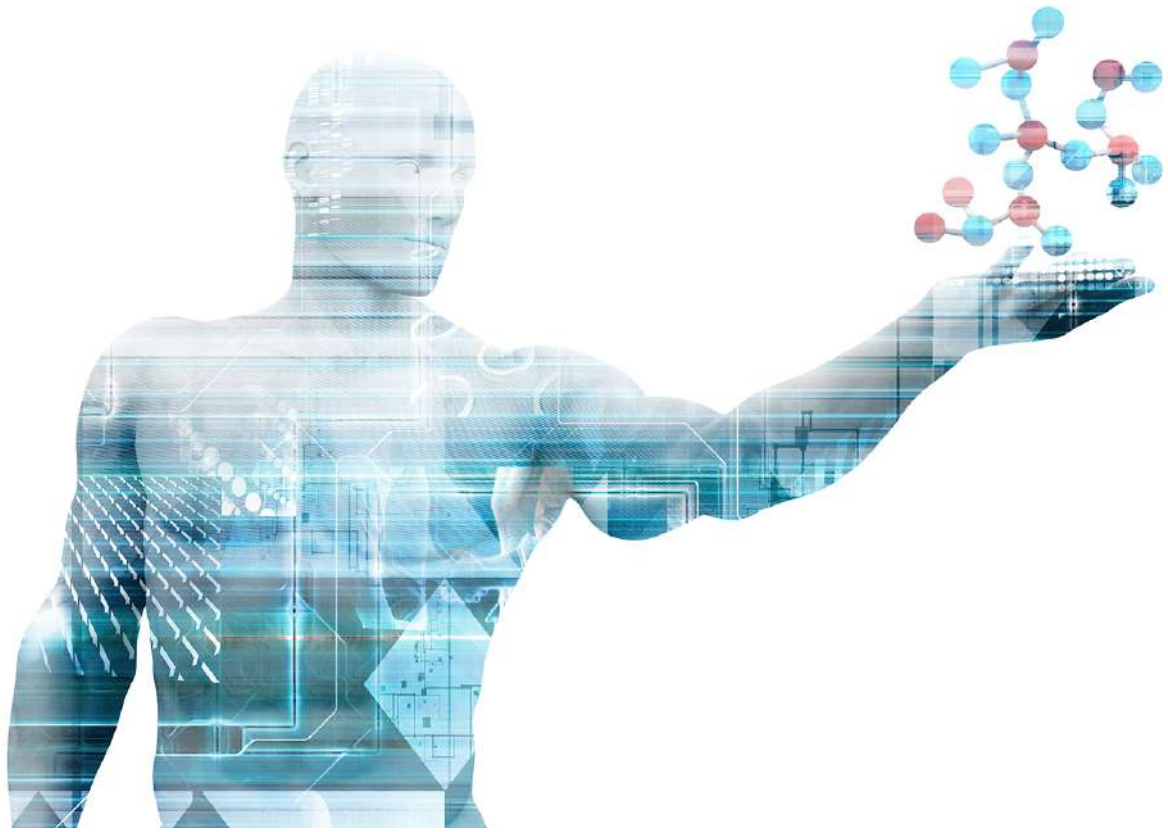
What are some of the challenges faced by the eHealth industry now?

One of the biggest challenges facing the eHealth industry is data security. As more and more medical information is stored electronically, the risk of data breaches increases. This puts patient privacy at risk and can also lead to problems with treatment, if confidential medical records are accessed without authorization.

Another challenge for the eHealth industry is to ensure that eHealth services are accessible to everyone, regardless of income or location. In many parts of the world, eHealth services are still not widely available, and those who do have access often find them too expensive. This can lead to unequal access to health care and a two-tier system where only those who can afford it have access to the best eHealth services. Finally, better regulation of the eHealth industry is needed. In some countries, there are no laws regulating the use of eHealth services, which can lead to patients receiving substandard care or being financially exploited. This lack of regulation can also lead to a lack of trust in eHealth services, which can discourage people from using them even when they are available.

The eHealth industry faces a number of challenges, but they can be overcome with the right solutions. Data security is critical to protect patient privacy and ensure that medical data is not accessed without authorization. Making eHealth available to everyone, regardless of income or location, is important to ensure that everyone has access to the health care they need. And better regulation of the eHealth industry will help protect patients and ensure they receive the best possible care.

Key takeaways: The future of healthcare technology



As we move into 2022, eHealth technology is improving across the board. Security will remain a top priority for healthcare organizations, and new technologies will help prevent threats rather than just respond to them. Quality and efficiency of care will also continue to improve thanks to breakthrough technologies such as artificial intelligence, cloud data, machine learning, and augmented and virtual reality.

When it's time to modernize your healthcare organization, it's important to work with the right software engineers who understand your specific needs.

Tailor-made solutions for healthcare companies

Typeqast brings you high-quality software and experienced developers who drive innovation by helping eHealth companies adopt new technologies. We combine our in-house technical know-how with relevant expertise to provide customised solutions for eHealth organisations aimed at improving their efficiency, making them more flexible and ultimately meeting the needs of their customers.

We help our customers develop and deploy new eHealth solutions that are rapidly evolving and whose digital approach could revolutionise traditional medicine.

Working with experts around the world, Typeqast helps organisations keep pace with the rapidly changing user experience in the healthcare industry.

Book a meeting today to discuss how we can improve your business!

"We're extremely happy that Typeqast was able to deliver the full scope of the project for us. We can with the initial idea and a conceptual design, and Typeqast team refined it through design sessions and delivered the complete platform from back to front. The collaboration was flawless and straightforward and we couldn't have done it better or more efficient."

— Alen Pecirep, CEO of Doct

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