



# TOP 5 DIGITAL TRENDS & CHALLENGES IN THE HEALTHCARE INDUSTRY

## Trends:

# 1

### Intelligent Automation



48% of healthcare executives report extensive use of automation for IT tasks and 47% for customer interactions

of healthcare executives report more investments in embedded artificial intelligence (AI) and 69% in machine learning



5 Min per encounter can be saved by each US primary care physician applying virtual health to annual ambulatory patient encounters

Intelligent automation is making care delivery and administration more seamless across the health ecosystem. From robots performing housekeeping duties to avatars streamlining the patient intake process—it's not about replacing people, it's about allowing people to work more efficiently, and where they are needed most.

- Data can help clinicians make informed decisions through computer-assisted algorithms, and it can get the right supply to the right place at the right time
- Apps can deliver turn-by-turn directions to a clinic, from your door to the visit room
- Health plans can use data to help guide consumers in deciding about the best plan for them

## 2 The Liquid Workforce



of healthcare respondents believe a more fluid workforce will improve (vs. derail) innovation

saved annually with a care model that includes an annual physician exam and technology-enabled self-management the rest of the year.



of the healthcare workforce will comprise contractors/ freelancers or internal temporary positions in three years, according to estimates.

Digital has generated a more fluid workforce that can go where help is needed. Have a sick child? Digital services can allow you to Skype with a paediatrician. Struggling with a high-risk pregnancy issue? Through virtual technology, a specialist in New York can treat an ailing patient in New Mexico.

Organizations can launch innovations faster. Health plans can use crowdsourcing to hear from innovators and entrepreneurs. And, virtual care provides greater accessibility and flexibility for patients.

Platforms are enabling smart cities, connected machines, robust customer analytics and more. In healthcare, they provide the underlying technology that can make healthcare experiences more connected. Platforms can link the entire healthcare ecosystem— from patients to providers to health plans.

- Imagine a future when healthcare consumers will go to one central place to book an appointment, check their electronic medical record or pay an out-of-pocket expense
- Providers will track a patient's activity from hospital to home
- Health plans will connect with consumers through engagement platforms, collecting data from wearables and offering rewards or premium discounts for progress

## 3 Platform Economy



of healthcare executives believe adopting a platform-based business model and engaging in ecosystems of digital partners are very critical to the success of their business

growth is expected for health application programming interfaces (APIs) in five years



of patients have switched healthcare providers due to poor customer experience. This switching translates to a loss of more than \$100 million in annual revenue per hospital

## 4 Predictable Disruption



of healthcare executives agree that organizations are increasingly pressed to reinvent themselves and evolve their business before they are disrupted from the outside or by their competitors

industries that healthcare executives believe will face the most digital disruption within the next three years: healthcare, banking and biotechnology



of healthcare consumers wear or are willing to wear technology to track their lifestyle and/or vital signs

In today's digital economy, disruption is ubiquitous. It's changing the way we consume everything—from products to entertainment. As consumers increasingly want personalized, on-demand services, healthcare is not immune. Lines are blurring across industries and new ecosystems are emerging. Start-ups, wearables and device manufacturers are converging to capture what is happening with consumers, and react in real time.

- Disruption can be a game changer if a business can predict it.
- Healthcare organizations must link up with those outside of the industry to seize new disruptive opportunities
- If the banking industry has mastered mobile payments, health plans should explore mobile apps that can make out-of-pocket payments pain-free for consumers
- If companies like Spotify can successfully deliver music as a service, healthcare providers should also look at how care can be delivered as a service

As healthcare data security risks increase, so do opportunities to earn consumer trust. Protecting privacy has become table stakes in healthcare. Now, organizations must figure out how to responsibly and ethically manage a mass of customer data that is increasing in volume by the minute. If handled properly, this treasure trove of data can be a tool for creating tailored services and building consumer trust. Ecosystems are expanding the number of potential weak links in the digital chain. Exposure will only continue to increase, so ongoing steps must be taken to protect privacy and security of data and build digital trust.

- Solid policies and procedures must be in place for governing the ecosystem
- Furthermore, those policies must be disclosed and understood to ensure the right consent and access to information

## 5 Digital Trust



of healthcare executives agree that data ethics breaches pose similar risks to business as security breaches

of healthcare executives report there is a strong or very strong demand for increased ethical controls of data among their knowledge workers



of consumers globally believe that the benefits of being able to access medical information electronically outweighs the risk of privacy invasion

# Challenges:

## Security

Security is a primary concern in healthcare applications since they often deal with confidential and sensitive patient health data. The healthcare industry has very stringent requirements around cryptographic security that dictates how and when the data needs to be encrypted, transmitted and decrypted.

To build a compliant telehealth application, specific encryption algorithms and data security standards need to be followed. Additionally, any underlying 3rd party platform used to help power a telehealth service needs to be completely secure with comprehensive data protection, access control, business continuity rules and procedures in place.

## Data Privacy and Regulations

There are several privacy laws and regulations that surround patient document rights, how providers share information. Inevitably, such regulatory measures put a burden on data fluidity and make it more difficult to adopt new technologies that involve data.

## Integration & cost-effectiveness

Any new technology that comes into the market, enterprise organizations with restricted environments looking to adopt it will inevitably encounter browser/plugin/network issues. In addition, the legacy devices and systems that have historically been used to store content (e.g. patient health records and images) aren't compatible with new technologies that keep coming to the market.

## Simple user experience

User experience is of utmost importance when organizations are considering changing or adding new technology or working methods. Survey results showed that that only 1 in 6 doctors use electronic health record systems regularly despite there being incentives and bonuses attached to its usage. This suggests that many healthcare professionals are reluctant to change their existing methods and systems that they're accustomed to. The value of new technologies need to be quickly justified and proven to increase efficiency and customer satisfaction.

## High performing and high quality solutions

Application performance and quality of service are essential for launching real time communications solutions for the healthcare industry. For instance, let's say you've created a virtual home care service for chronically ill patients who need 24/7 monitoring and immediate access to specialists. For that use case, the caregiver would undoubtedly need reliable, high quality video, audio, imagery, and patient monitoring data sourced from connected devices.

*Source: Key technology challenges for healthcare industry (Information listed taken for the mentioned source)*

## ABOUT US

At Brillio, our customers are at the heart of everything we do. We were founded on the philosophy that to be great at something, you need to be unreasonably focused. That's why we are relentless about delivering the technology-enabled solutions our customers need to thrive in today's digital economy. Simply put, we help our customers accelerate what matters to their business by leveraging our expertise in agile engineering to bring human-centric products to market at warp speed. Born in the digital age, we embrace the four superpowers of technology, enabling our customers to not only improve their current performance but to re-think their business in entirely new ways. Headquartered in Silicon Valley, Brillio has exceptional employees worldwide and is trusted by hundreds of Fortune 2000 organizations across the globe.

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