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## Letters...

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## Virtual Healthcare

The intersection of health and technology is revving up. Exciting new developments to improve care across the board — from clinical trials to at-home diagnostics and treatments — seemingly come to light on a daily basis. As we discuss in this month's cover story, healthcare is the focus of extensive development in terms of health management apps, telemedicine platforms, AI diagnosis, and the use of video, mobile apps, text messaging, sensors and social media, and more.



Pharmaceutical companies are investing significant resources to explore the potential of virtual health. Granted, many of these efforts are still in early-stage or pilot program implementation, but the excitement around the potential benefits is encouraging. Experts note that recent digital transformation trends provide both patients and companies with unparalleled access to information surrounding the impact of a healthcare strategy or pharmaceutical product, and the influence of this on patients' overall well-being and everyday life could be immeasurable. Therefore, it's no surprise that pharmaceutical company partnerships between technology and data companies to discover ways to best use virtual health and how it can improve processes across all business operations are also on the rise.

As noted, on the pharma level, virtual health tools will enable the industry to have broader engagement with patients and physicians along multiple touchpoints. From digital tools to help solve problems associated with clinical trials to enhancing R&D, the life-sciences industry is significantly investing in virtual health tools, such as artificial intelligence, machine learning, virtual reality, and augmented reality. In terms of AI alone, the potential in savings could be \$150 billion annually for the U.S. healthcare economy by 2026. The market's growth is huge, with expectations that it will reach \$6.6 billion by 2021.

At its heart, according to most definitions, virtual health combines clinical care and professional collaboration through telemedicine, telehealth, and collaboration at a distance to connect clinicians, patients, care teams, and health professionals to provide health services, support patient self-management and coordinate care across the care continuum. This is a significant umbrella and a market that analysts predict could range from \$13 billion to \$17 billion by the end of 2026.

As the population continues to become more and more comfortable with virtual voice assistants, online platforms that allow for one-click consumption, augmented and virtual reality consumer games, and online video chats, the hurdles to adopt virtual care technologies will be significantly lowered.

Furthermore, breakthrough technology enhancements and development are increasing exponentially. For example, at this month's DPharm meeting in Boston, Unlearn Founder and CEO Charles Fisher revealed a hypothesis as to how digital twins will revolutionize clinical trials. According to Mr. Fisher, a digital twin is a virtual copy, or simulation, of some real object. We are truly entering a new age of discovery.

Taren Grom  
Editor

## Their word...

**DENISE MYSHKO**

Managing Editor



*Understanding of the human microbiome and the implications for medicine have opened up a new paradigm of therapy — microbiota-based drug therapies.*

**ROBIN ROBINSON**

Senior Editor



*Virtual health and digital technology are gaining traction in clinical trials and patient services, and they will continue to shape the industry's processes in the future.*

**KIM RIBBINK**

Features Editor



*AI adoption is gathering steam across healthcare but companies say there remains a need for evidence to demonstrate its value.*

## 2020 Year in Preview

The who, what, where, and how of the future of the life-sciences. We ask 20 provocative questions to elicit an exciting dialogue about the near- and longer-term future of the industry.

- ▶ Showcase: eSolutions
- ▶ Showcase: Supply Chain Management