Pandemics & Technology

by Md Nafis Fuad

Pandemics & Technology

Technological impact of COVID-19

Daily living has changed immeasurably since the world was introduced to COVID-19. The global pandemic has not spared a single geography around the globe. Now, nearly 1 year later, most of us are at home, using tools like Zoom, and other technologies to stay in touch with family and colleagues. We are buying almost everything online and having it delivered to our door, including groceries and prescriptions sometimes. The importance of technology in our lives has never been more apparent. Although many technologies and platforms existed pre-pandemic, their importance to our daily living increased exponentially during the pandemic. This is likely to continue in many areas post-pandemic.

The pandemic will have long-term impact on our society. An area where we are bound to see such effects is technology, which will inevitably be influenced by the lessons learned during an unprecedented and difficult period in our history.

The following examples are some of the key areas where COVID-19 is reshaping the future of technology, particularly in the health care arena and this includes wound care.

Therefore, this article is tailored to explore the advancement of technology in this era of COVID-19 and how it has impacted individuals' lives and states in a few developed and technologically advanced countries

Technologies have improved online shopping and robotic deliveries during corona time

After the outbreak of COVID- 19 in the world, technological advancement has been used to promote and enable the business to continue running throughout. COVID-19 has transformed online shopping from occasional to a must globally to minimize the

movement of people all over, thus controlling the coronavirus's spread.3 Online

shopping is enhanced through robust logistics systems where robots are being used

as the means to deliver food supplies and other commodities because in-person

delivery isn't virus-proof. Countries like China and the United States have launched

contactless delivery services where the customer's goods ordered are élite and

dropped off at the selected locations instead of the customers picking for themselves

using their hands. However, not every sector is equal in terms of e-commerce amid

this pandemic. Significant variations and changes in online behavior have been

observed (Figure 1). There is a considerable rise in traffic in some sectors, while

others are seeing a significant decrease in digital visits.

Remote healthcare and telemedicine

During the first months of the pandemic, the percentage of healthcare consultations

that were carried out remotely shot up from 0.1% to 43.5%. Analysts at Deloitte say

that most of us are happy with this and will continue to use virtual visits.

The reasons behind the growth in remote medical care are clear, but even when

excluding communicable diseases, there are several strong reasons to advance the

ability to assess, diagnose, and treat patients remotely. In regions with limited access

to healthcare, such as rural areas and places with a shortage of doctors, like India and

China, this trend holds the potential to save lives by significantly expanding medical treatment. Wearable technologies of the new generation are equipped with sensors for heart rate, stress, and blood oxygen levels, allowing healthcare professionals to monitor vital signs in real-time. The pandemic has also led to the creation of "virtual hospital wards" where centralized communication systems are used to manage the treatment of multiple patients, all from the comfort of their own homes. A more advanced version of this concept can be seen in the "Virtual ER" pilot project underway at the Pennsylvania Center for Emergency Medicine.

Telemedicine has the possibility of improving access to healthcare in a world where half the population is without access to essential services, according to the World Health Organization (WHO). Nonetheless, this is contingent on establishing trust with the public as some individuals still prefer an in-person interaction with healthcare providers. As a result, providers need to consider this when launching telemedicine services.

Preparing for Healthcare Technologies of the Future

In 2020 , the WHO State of Nursing Report urged governments and stakeholders to invest in education for nurses around emerging healthcare technology. Virtual reality, artificial intelligence, and telehealth are all expected to continue growing within healthcare.

Ultimately, there's nowhere to go but forward. Healthcare organizations can't refuse new technology without also losing out on staffing and care opportunities. Businesses should embrace this moment by integrating new technology where they can. Leaders need to focus on implementing software solutions that will set them up for success in

the future. In other words, software platforms that are continuing to update along with the industry.

In addition, it's important to invite nurses into the conversation. Nurses have the skills and openness to excel with new tools. But working with systems that aren't designed with the user experience in mind is exhausting. Nurses have experience and insight that can inform decision-making about new technologies. It only makes sense to ask for their input.

Technological Challenges

The primary challenge to the adoption of new technology in healthcare is the initial high error rate. New tech often requires extensive testing and refining before it can be considered reliable. This trial and error process can result in incorrect predictions and poor recommendations. For successful implementation, it is crucial for technologists and healthcare professionals to collaborate and prevent these issues from occurring. Until the technology is trustworthy, thorough testing and fail-safe measures must be implemented.

[1] The pandemic has pushed new healthcare technology priorities ahead of old ones.

[1] The success of connected care begins with improving the quality and reliability of patient data. Something that healthcare and medical service providers of all sizes

struggle to maintain, especially now. But as global technology behemoths speak of mobile health records, personal health data exchange and monitoring patient vitals through wearable devices, a healthy dose of reality resonates among the people charged with making it happen in the patient care environment. It must begin with improving the accuracy of patient data management.

Therefore, technology goals, such as accurate patient information, linked patient records, interoperability and cybersecurity continue to be at the forefront of healthcare concerns. The pandemic has only amplified the need for these technologies to become realities for providers and throughout the broader healthcare industry.

Using Technology Solutions to Improve Remote Medical Care

With the move to telemedicine and remote workforces, the technology lens is even more focused on identity management practices and security protocols for access to sensitive healthcare data. Allowing the right person access to the right healthcare records, and ensuring appropriate and patient-centric care, is more critical than ever as the pandemic continues to churn through the U.S. These technology needs have not changed, they've only become more critical to ensure proper value-based medical care and to improve healthcare delivery from providers.

Conclusion

The COVID-19 pandemic has greatly increased the adoption of digital health solutions, which include telemedicine, remote monitoring, connected devices, digital health

platforms, and health apps. These technologies have become crucial in the fight against the virus and have been used for online medical consultations, remote diagnosis and treatment, and remote monitoring of patients. Despite the benefits, there are still challenges to overcome, such as the digital divide and the security of personal health data, as well as questions over privacy and control of data. Overall, the impact of digital health on healthcare will continue to grow in the future.

Hello

'This is Sohanur Rahaman I'm a student studying Health Informatics in DIT, Germany. I'm currently living in Bangladesh and still waiting for visa .I love travelling, watching Tv series ,playing football.

My matriculation Number: 22205514 © 2023 Sohanur Rahaman

Reference :

1. https://onlinelibrary.wiley.com/doi/10.1111/iwj.13578

2. https://journals.sagepub.com/doi/full/10.1177/20503121211000912

3. https://www.gavi.org/vaccineswork/how-artificial-intelligence-could-help-fight-against-covid-19?gclid=CjwKCAiAuOieBhAIEiwAgjCvcqa7oVl7-TZJOEw7XSnDP5Ynjo5Zh2ssYL_CeymG6rGW8FCjAp3myhoCON4QAvD_BwE https://www.forbes.com/sites/bernardmarr/2022/01/10/the-five-biggest-healthcare-tech-trends-in-2022/?sh=1093310754d0&fbclid=IwAR3seQlnzFGMlB8IIM1SdsmU2dWQra-8LAUv6X3L5ri-RWH5F2iaEccS3j0

4.https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)690548?fbclid=IwAR31slJtjZxenAQZjvoulpAqpHyv2o1f92RAgZf6hytbL7oN5VZ7_pCuh6U#:~:text

=Coronavirus%20has%20accelerated%20the%20rise,health%20platforms%20and%2
0health%20apps

5. https://apploi.com/blog/hr-strategy/emerging-healthcare-technology/

6. https://www.forbes.com/sites/forbestechcouncil/2022/01/11/the-future-of-healthcare-technology/?sh=6246cb024750&fbclid=IwAR0xq5Nn9dT0ZBKN-dTegUwtw4merQI4RMUoR36J0cLnDkA76COJOWdDoYM

7. https://risk.lexisnexis.com/insights-resources/research/covid-19-impact-on-healthcare-technology-priorities?fbclid=IwAR3vahtXp8CvYGJxdDFBMMgJEPSgcNancNUaGIvT1pSYrdAiE2Et_8Mrz4g

Pandemics & Technology

PRIMARY SOURCES

1	risk.lexisnexis.com Internet Source	16%
2	Nishant Renu. "Technological advancement in the era of COVID-19", SAGE Open Medicine, 2021 Publication	15%
3	Douglas Queen. " Technological impact of ‑ 19 ", International Wound Journal, 2021 Publication	13%
4	apploi.com Internet Source	12%
5	www.forbes.com Internet Source	10%
6	eurocid.mne.gov.pt Internet Source	2%
7	Submitted to AUT University Student Paper	1%
8	bmcmededuc.biomedcentral.com Internet Source	1%

9	www.coursehero.com	1%
	Internet Source	

10	Submitted to University of Bradford	1%
	Student Paper	

11	Submitted to East Carolina University	1%
	Student Paper	

12	www.ashaweb.org	1%
	Internet Source	

Exclude quotes   Off   Exclude matches   Off
Exclude bibliography   Off

PAGE 1

PAGE 2

Possessive

PAGE 3

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

PAGE 4

PAGE 5

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

PAGE 6

PAGE 7