Emerging Technologies in Healthcare

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1 Introduction

Emerging technologies in the healthcare business are being introduced at a breakneck rate, promising better treatment options and more efficient care. This is particularly significant for healthcare facilities looking for solutions to workforce shortages or other constraints.
Healthcare technology has the potential to revolutionise the industry as we know it, allowing for better and more efficient patient care. Healthcare firms must keep up with healthcare tech developments not only to stay competitive but also to give the greatest possible patient outcomes, just as other industries have had to adapt and evolve as new technologies have emerged.

2 5 Emerging Technologies in the Healthcare Industry

2.1 Artificial intelligence

AI's widespread adoption has the potential to transform the whole healthcare industry. The use of AI in the healthcare business is expected to rise at an exponential rate, with investments in the sector expected to reach USD 6.6 billion by 2021. AI can be used in a variety of settings, including operations to identify high-risk patients and medication reminders and dosages. Google DeepMind Health, for example, is developing AI tools that can scan large volumes of medical data to find new, simple ways to detect and treat diseases. DeepMind and University College London Hospitals (UCLH) are collaborating to see if AI can assist detect malignant cells by analysing CT and MRI images. Atomwise, meanwhile, use artificial intelligence to identify the best candidates for preclinical medication trials and examines billions of chemicals.

2.2 Electronic health records

Health data can now be stored in a centralised, cloud-based portal that gives health care professionals and patients rapid access to medical histories thanks to advances in health information technology. As a result, healthcare providers

have instant access to all the information they require, which can be critical in an emergency, when there is a language barrier, or when a patient is unable to communicate. This form of healthcare technology is especially useful when doctors from different hospitals or medical offices need to collaborate on patients with complicated medical files or diagnoses in order to find the best treatment option for them.

2.3 3D Bioprinting

3D bioprinting is another technological advancement in the healthcare field. By 2027, the worldwide bioprinting market might be worth over USD 1.8 billion. Bio-printing can restore and replace many body parts, bones, and tissue using DNA analysis. A study team recently devised a way for printing biological skin and blood vessels in 3D. This is a huge step forward for burn victims who need skin grafts. Patients who have lost limbs will benefit from 3D-printed prosthesis.

2.4 Nanotechnology

Nanotechnology in the healthcare field has been in the works for quite some time. It investigates molecular structure in order to create precise medical devices and treatments. Nanorobots and nanomedicines are two examples of nanotechnology breakthroughs. In 2018, nanotechnology was used to create an electronic pill that can be controlled after being released in the patient's body to relay diagnostic information or release medications in a specified area of the body. The technique is currently being used to create smart patches that can monitor wounds and promote speedy healing. The majority of this application is still in development.

2.5 Blockchain

The collecting and storage of medical history is projected to be fundamentally transformed by this technology. Not only would it be easier to store and access data via blockchain, but security risks would be reduced as well. It would provide clinicians access to a patient's whole medical history, including any inherited disorders or allergies, allowing them to tailor treatment to provide the best care possible. The blockchain concept for healthcare is still in its early stages of development.

3 Conclusion

The future of medicine and patient care will increasingly rely on health technology, which is why healthcare organizations must embrace emerging healthcare technologies to stay relevant in the coming years. By exploring healthcare tech trends and becoming an early adopter of new innovations, healthcare providers can provide cutting-edge care.