NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

BIOMEDICAL ENGINEERING

ASSIGNMENT

Emerging Technologies in Healthcare

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EMERGING TECHNOLOGIES IN HEALTHCARE

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1 INTRODUCTION

Healthcare technology is poised to reshape the industry as we know it and provide more advanced and efficient patient care. Just as other industries have had to adapt and evolve as new technologies have emerged, healthcare organizations must keep up with healthcare tech trends not only to stay competitive but to also be able to provide the best possible patient outcomes. While there are many exciting new developments in the world of healthcare technology, here's a closer look at five that have tremendous potential to change the industry for the better.
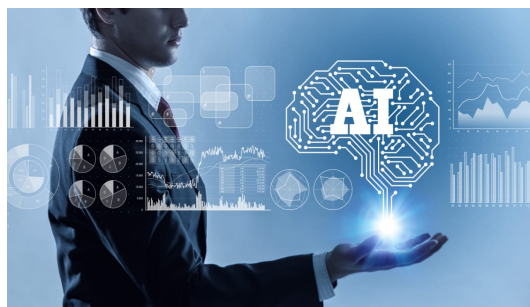
2 HEALTHCARE TECHNOLOGIES ARE EXCITED ABOUT

Emerging technologies in the healthcare industry are being introduced at a rapid pace, bringing with them the promise of improved treatment options and more efficient care. This is especially important for healthcare facilities that are seeking solutions to deal with staffing shortages or other limitations. Some of the healthcare technology advances to watch going forward include.
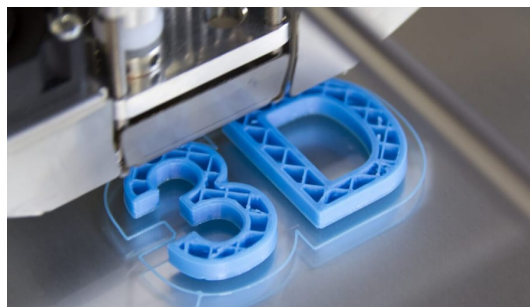
2.1 ARTIFICAL INTELLIGENCE

AI is transforming the way healthcare organizations manage and draw insights from the incredible amount of scientific data and patient information

that's available. AI can be used to create and customize treatment plans and medication options for patients in a much faster and precise way than human healthcare teams can do on their own. AI can also help in other ways, such as advancing the field of genomic medicine by analyzing complex genetic information to determine the best course of care for individuals based on their DNA. The hope is that AI can one day improve diagnostic accuracy and even predict health outcomes.

2.2   3D BIOPRINTING

The invention of 3D printing is another new technology in the healthcare industry that is proving to be transformative. This new field of 3D Bioprinting enables physicians to print artificial limbs, organs, joint replacement parts, and bio tissues. In addition, in the field of pharmacology, there are ongoing experiments for printing pills and other medications. Lastly, 3D printers can also help create medical devices and surgical tools.

2.3 ROBOTICS

The field of robotics has made great strides as well, making it a top healthcare tech trend. Medical robots can help surgeons perform very precise and targeted procedures and therapies. Though the doctors still control the surgery, robots take away the possibility of human errors and can potentially reduce infections. Healthcare robots are also poised to take over clerical and routine tasks to free up nursing and other healthcare professionals to focus more on direct patient care.