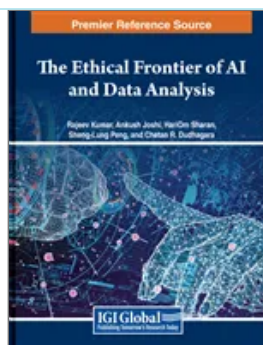


# Save 10% on All IGI Global Research Books & OnDemand Individual Chapter & Article Downloads (/search/)



Available exclusively on IGI Global's Online Bookstore. Offer valid through October 31, 2024



## The Impact of 5G on the Future Development of the Healthcare Industry

Saurabh Srivastava (/affiliate/saurabh-srivastava/464340/), Harish Chandra Verma, Syed Adnan Ahaq, Mohammad Faisal, Tasneem Ahmed

Source Title: The Ethical Frontier of AI and Data Analysis (/book/ethical-frontier-data-analysis/334598)

Copyright: © 2024

Pages: 7

DOI: 10.4018/979-8-3693-2964-1.ch019

**OnDemand:**  
(Individual Chapters)

**\$33.75**

List Price: ~~\$37.50~~

Available



[Current Special Offers](#)

### Abstract

A 5G network can enable services like real-time remote patient monitoring and the distribution of huge files, including medical data for e-health systems. The internet of things (IoT), sensors, and other cutting-edge technologies will be used in the future to identify patients' illnesses and offer advice on how to treat them. The popularity of electric health care is increasing day by day, there are many applications available that can be used by the patient for routine checkups from the smartphone. Patients' private information is taken at the time of application downloads such as name, gender, and age is used by the application to increase its accuracy, as well as, the results of routine checkups are stored on the application's server (storage). The stored data can be used in different kinds of promotions. Hence, hackers are trying to steal information from users for their benefit and the IoT-based applications are not so reliable in terms of security.

### Chapter Preview

Top

### Introduction

One of the most pressing issues in the modern world is medical health care. Concerns about the standard of treatment in healthcare are raised by inadequate infrastructure, subpar healthcare laws, and a lack of funding (Kumar et al., 2020). Medical healthcare is a major issue in developing nations, especially in rural regions, Rural healthcare systems face unique barriers such as the cost of caring for patients with chronic diseases, as well as the need for older people to receive care at home(Hamm et al., 2020). The healthcare industry is growing rapidly, and lots of applications are using networks to handle all types of data in different sizes and formats as a result (Rao, 2019.). The development of wireless telecommunication has enhanced medical health care in many ways, including easing patient struggles with remote health diagnoses that require traveling from remote locations to modern healthcare facilities and ensuring that patients receive proper medical care without having to pay exorbitant sums of money(Kumar et al., 2020). The healthcare sector is always on the lookout for cutting-edge technologies that will have a significant impact on the way healthcare is delivered. As technology advances globally, the healthcare sector also demands higher-quality networks, which is why 5G is essential to providing intelligent hospital care (Batool, 2022). The fifth generation of wireless networks is called 5G, and it was introduced by Germany in 2020 as a new mobile communication standard. Fast data throughput, low latency, and adequate coverage are key aspects of 5G networks. Fast Internet provides reliable connectivity to medical equipment and systems. Additionally, 5G enables instant downloads and communications between tablets and mobile devices used in smart healthcare systems. The 5G standard is considered to lead to the IoT and thus billions of networked end devices (Batool, 2022.; Hamm et al., 2020). The 5G is capable of activating some important features of smart applications of healthcare such as network slicing, where maintaining the performance of multiple network slices at once is difficult compared to the existing service assurances in legacy networks (Qureshi et al., 2021).