

CHAPTER 8

Exploring the Scope of Policy Issues Influencing IoT Health and Big Data: A Structured Review

ANTHONY MAINA^{1*} and UPASANA SINGH²

*¹School of Computer Science and IT,
Dedan Kimathi University of Technology, Nyeri, Kenya*

*²School of Management, IT, and Governance,
University of KwaZulu-Natal, Durban, South Africa*

**Corresponding author. E-mail: anthony.maina@dkut.ac.ke*

ABSTRACT

IoT-health and big data technologies are transforming healthcare. By unlocking the value of massive biomedical data sets, novel technologies capacity improves individual and public health outcomes and drive health policy. Whilst a host of ethical and privacy concerns threaten the assimilation of health big data, there is limited attention to the myriad of other social and technical issues that hinder the progress of data-driven innovations. Using a structured review of the literature, we explore the range of policy matters influencing big data technologies in the health. Results identified the following themes: (1) data sharing utilization and

RESULTS IDENTIFIED THE FOLLOWING THEMES: (1) data sharing, utilization, and governance, (2) security and privacy, (3) standards and interoperability (4) stakeholders, (5) human capital, (6) technology and innovation, (7) funding and partnerships, and (8) legal and regulatory issues. By uncovering the policy landscape, this work provides a framework to understand and address the IoT-health and big data integration concerns in health systems. Moreover, it assimilates the often disjoint and isolated account of policy narratives.