Chapter 4
Artificial Intelligence and Digital Health Applications:
Field Study From the Perspective of the Sociology of Health and Disease – Doctors as a Model

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ABSTRACT

This study deals with uncovering the increasing role of artificial intelligence in the medical field with special attention to its applications and how doctors benefit from it. The study used the descriptive method on a random sample of 50 doctors, and collected the study data on the questionnaire technique. In the end, the study concluded that artificial intelligence receives great attention in medical affairs and has a high impact on doctors through medical awareness, professional development, and medical diagnosis. At the conclusion of the study, it was emphasised that artificial intelligence does not replace doctors, but rather is an auxiliary tool that can develop their capabilities and improve the quality of medical care offered to patients. However, the study emphasises the need to maintain human and ethical oversight in the use of these technologies to ensure the protection and fairness of patients.

DOI: 10.4018/979-8-3373-3436-3.ch004

1. ARTIFICIAL INTELLIGENCE IN MEDICAL PRACTICE: AN INTRODUCTION TO UNDERSTANDING DIGITAL TRANSFORMATION

The digital transformation over the past decades has brought about profound shifts in the patterns of society to the point that most events have a digital dimension, and artificial intelligence (AI) is at the centre of this process, although it is not a new practical field in achieving difficult mental and cognitive operations, which until recently was the exclusive domain of man, but the recent developments have made it an integral part of daily life, which has changed the way of work and communication with the world, and as artificial intelligence continues its progress and development, it has become an indispensable force in most fields, especially in the field of health care.

Diagnosing and treating diseases has always been the role of doctors. Today, this role is gradually disappearing or in a gradual decline of medical tasks due to the artificial intelligence revolution, which has stripped medicine of all its human characteristics, and reliance on high-tech equipment has increased over time. This has provided doctors and health actors with favourable opportunities to overcome obstacles and achieve technological innovation, which has allowed for a paradigm shift in clinical practice that has reshaped the way patients are diagnosed and treated, optimising health services and treatment plans, anticipating their course, developing medicines, and monitoring and caring for the patient through algorithms, machine learning and deep learning technologies.

In addition, patients encounter a bewildering variety of digital methods to communicate with medical providers and obtain information about healthcare issues. Through these tools, knowledge is transferred and disseminated in an awareness-raising and preventive form, with the aim of reaching as many segments of society as possible, although they sometimes collide with "Cultural deposits" that manifest themselves in the form of traditional remedies and self-treatment experiences, and this phenomenon results in a loss of awareness of the danger of these irrational practices that enter the therapeutic lexicon. Moreover, it provides answers to questions that seem embarrassing to some patients, and answers to rumours about "Taboo" diseases or those who suffer from discrimination and social stigmatisation of health due to the pressures of the dominant cultural community. In addition, sharing health guidance information from doctors that helps patients and healthy people to live a healthy lifestyle, to make informed decisions about individual patient care, and to help them prevent diseases in a codified way through the optimal and rational use of smart health tools that can benefit the career path of doctors.

Although artificial intelligence opens up promising prospects in the fields of innovation, productivity, and solving health challenges, it redraws possible boundaries