

Preface

The rapid advancement of technology is reshaping the healthcare and pharmaceutical industries in unforeseen manners. The combination of blockchain, big data, and artificial intelligence (AI) has created new opportunities in drug research, clinical trials, and patient care. The book “Digital Blockchain- Big Data, Artificial Intelligence and Virtual Reality in Healthcare Ecosystem” explores the revolutionary potential of these technologies in the pharmaceutical and healthcare industries. Blockchain ensures data integrity, confidentiality, and transparency, whereas big data and AI allow for new advances in drug development, clinical trials, and personalized medicine. Virtual reality is being more widely used in medical training, patient rehabilitation, and treatments, producing immersive environments that improve patient outcomes and healthcare professional capacities.

Beginning with the basis of artificial intelligence (AI) and big data in pharmaceutical research, the book educates readers through the complex relations between these technologies and their uses in healthcare. It investigates blockchain’s rising importance in pharmaceutical supply chain security, as well as the advancements of AI-powered decision-making systems. These digital technologies have a significant impact on the entire lifecycle of medication research and delivery, as well as ethical, regulatory, and intellectual property considerations.

The future of healthcare depends on developing collaborations among pharmaceutical companies, startups, and academic institutions to fully realize the possibilities of AI, big data, and blockchain. This book provides an orientation for healthcare practitioners, technicians, industrial experts, and academicians, as a forward-thinking resource with incorporates disruptive technology into the healthcare ecosystem.

