## Precision Health in the Digital Age: Harnessing AI for Personalized Care

Part of the Advances in Medical Technologies and Clinical Practice Book Series

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## **Description:**

The evolving healthcare landscape is now challenging healthcare providers and researchers to deliver personalized care considering individual genetic, lifestyle, and environmental factors. To tailor treatments and interventions to each patient's unique profile in a timely manner, they need to harness the vast amounts of readily available data. Artificial intelligence (AI)

has immense potential to revolutionize precision health by enabling the analysis of large datasets and generating actionable insights for personalized care. However, implementing AI in healthcare comes with challenges, including ethical considerations, regulatory frameworks, and the need for healthcare professionals to develop competencies in AI technologies.

Precision Health in the Digital Age: Harnessing Al for Personalized Care offers a comprehensive solution for healthcare professionals, researchers, and policymakers seeking to leverage AI in precision health. The book explores the latest advancements in Al technologies, showcases their applications in precision medicine, and provides a roadmap for integrating Al into healthcare systems. It offers practical insights for improving patient outcomes through case studies and real-world examples of successful implementations of Al-driven precision medicine and health solutions.

Moreover, the book discusses AI's ethical, legal, and societal implications in personalized healthcare practices, guiding compliance with data protection and patient privacy laws. It highlights the role of AI in fostering communication and collaboration between healthcare providers and patients, emphasizing its potential to enhance patient engagement and adherence. Precision Health in the Digital Age: Harnessing AI for Personalized Care is an excellent resource for understanding the opportunities and challenges of leveraging AI for personalized care delivery. It offers insights into future trends and potential challenges in the field.

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## **Topics Covered:**

- Artificial Intelligence Competencies
- Artificial Intelligence Ethics
- Artificial Intelligence Models
- **Clinical Contexts**
- Data Collection
- Data Management **Drug Discovery**
- Subject: Medicine & Healthacre

**Readership Level:** Advanced-Academic Level (Research Recommended)

## Explainability

- Genomic Data Medical Imaging
- Natural Language Processing

- Patient Engagement
- Personalized Medicine
- **Remote Monitoring**

Classification: Edited Reference

**Research Suitable for:** Advanced Undergraduate Students: Graduate Students: Researchers: Academicians; Professionals; Practitioners



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