

FOREWORD

Digital health has undergone an astounding transformation since the beginning of the COVID-19 pandemic. While almost all fields of medicine have adopted digital technologies to deliver patient care, one delivery mode that outshines is telemedicine by breaking geographical barriers. Telemedicine, through telephone or video conferencing, or wearable or implanted devices, enables remote monitoring of patients. Many patients, especially the elderly, seem to prefer this mode of consultation mainly because it reduces or excludes travel time and long waits at the doctors' office. Not only the delivery of patient care but also the delivery of medical education has become virtual. Rapid advances in artificial intelligence, Big Data, augmented reality, Internet of Medical Things, connected devices, robotics, and algorithms will revolutionize digital health in almost all fields of medicine in the future. With the widespread use of smartphones, downloadable or internet-based applications (apps) will play a major role in the diagnosis of diseases, and monitoring and management of patients.

However, the implementation of digital health is not without challenges and concerns. The primary concerns are security and privacy of patient data. Hacking of smartphone apps and data breaches are common. The responsibility lies with both creators and users. Creators should ensure that the apps have necessary security features and users should exercise caution while using the apps. A universal legal and regulatory framework is still lacking for accountability, data ownership, and the implications of abuse of patient records. Efficient digital health delivery will require an uninterrupted, reliable, secure, and affordable communication infrastructure, which may not be available in many developing countries or even in remote areas of developed countries. This could lead to health inequity. Another concern is the depersonalization of care, which is, virtual delivery of patient care could lead to the loss of empathic physician-patient relationship.

Despite these challenges and concerns, it is undeniable that digital health has revolutionized patient care and will continue to do so. The chapters of this book are examples of such revolution. A multidisciplinary team of clinicians and researchers provide a balanced discussion of the benefits and challenges of digital health in ophthalmology, oncology, chronic obstructive respiratory diseases, transfusion medicine, stroke, opioid crisis, and the care of elderly. Also, there are chapters addressing the concerns of health inequity, and the risks and security of patient-generated data. This is a timely book not only for clinicians, but also for everyone who is interested in transformation of health care to digital health care.

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