fascinating reading. They clearly lay out how different moral orders and stakeholders interacted to create EHRs – and why these EHRs so often fell short of their lofty goals. Each case is well constructed, drawing on various data sources to create a smooth and accessible narrative. They are a particular highlight of the book. The model of moral orders proposed by McLoughlin, Garrety and Wilson is insightful and applicable to many situations beyond healthcare in understanding why (and how) systems and technological innovations often do not meet our expectations. One criticism of the book is that the solutions to managing the moral orders (Chapter 8) could be more thoroughly outlined. Specific tips, gleaned from the case studies, for managing these conflicting norms and responsibilities would be helpful to the practitioners, policy makers and politicians who will be interested in this overall very accessible book.

Scholars who work in e-health will be interested in the theoretical perspective of moral orders created by McLoughlin, Garrety and Wilson. Graduate students working in e-Health will find the EHR case studies helpful in not only informing their work on digital healthcare, but also as a model to replicate when writing their own case studies. The book is also of value to healthcare practitioners, providing insight into how different moral orders impact innovation in their field. Finally, policy makers and politicians who are interested in advancing national policies regarding e-Health would benefit immensely from reading *The Digitalization of Healthcare*. It is clear from the case studies presented, those involved in such policy decisions often lack a thorough understanding of the various factors involved. *The Digitalization of Healthcare* provides not only a framework for understanding these factors, but suggestions on moving forward in creating systems that work.

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Reference

Hughes, E.C. (1963), "The professions", *Daedalus*, Vol. 92 No. 4, pp. 655-68.

Mobile e-Health

Edited by Hannah R. Marston, Shannon Freeman and Charles Musselwhite
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Mobile e-health is a multidisciplinary domain that has exponentially grown over the last decade. This edited book, part of the Human-Computer Interaction series, provides a collection of essays over five domains: mobile health apps and the quantified self, games for health, the barriers and enablers of technology use, ethics, theory and service provision, and privacy and legal requirements. This is a relatively extensive book and the distinction between sections and chapters navigates the reader easily to specific subjects rather than needing to read from cover to cover. Each chapter differs in style and content, including primary research, critical reviews and case studies, keeping the book engaging throughout.

Whilst not evident from the title, this book primarily focuses on older adults' use of technology. Although the aim of the book is described as examining mobile e-health across the lifespan, it focuses mainly on non-age specific mobile e-health and older adults' use and experiences of mobile e-health. If adopting a life-course perspective, it would have been valuable to include essays across different age cohorts as their experiences and the regulatory or service frameworks supporting these technologies are likely to be distinct.
The introduction begins with essential definitions of both e-health and mobile health, a distinction not often provided in the literature. This helps the reader to understand the difference between both concepts from the beginning. Furthermore, the introduction provides a short history of e-health, the potential benefits of e-health from the existing evidence base, and also stresses the current lack of evidence in this area, particularly around acceptance and usability. This is strength of the book throughout.

Part 2, mobile heath apps and the quantified self, comprises of three chapters distinct in

both their content and style. This section begins with the development of a set of comprehensive design guidelines (feature and context) combining four sets of existing guidelines to ensure universal usability (Chapter 2). Chapter 3 critically reviews the concept of our 'bodies as data' (p. 43) and explores the changing relationships between new technologies and our personal health. Through theoretical insight and a review of contemporary mobile health apps and trackers, the paper stresses the integration between self-tracking data and its representation of the body. Finally, a prospective case study analysis provides an innovative way of considering the use of multiple forms of technology, and the quantified self, with ageing in place (Chapter 4). This prospective case study narrative was thought provoking in the way in which it demonstrated how technology could fit with ageing in place.

Part 3, games for health, presents three chapters specifically examining older adults' use of games. The first chapter covers a pilot trial of using interactive technology to increase physical activity whilst creating art, including outcomes, acceptance and usability (Chapter 5). This is followed by a review of the use of digital games, both mainstream games and games designed for health, to improve multiple aspects of older adults' health, including physical health, cognition and psychosocial health (Chapter 6).

Part 4 comes in two quite different chapters and focuses on perspectives to the barriers and enablers of technology use for older adults. The use of digital game technology (Chapter 7) provides further insight into gaming for health literature discussed in Section 2, looking at this from an international perspective (Europe and Australia), and Chapter 8 articulates the complexities of telehealth, and its evolution from telephones to robots. As well as reviewing the innovative technology itself and complexities of technological development, the authors importantly discuss the implementation science, which demonstrates just how far technologies are placed within a vast, complex healthcare system. As a result, the chapter demonstrates effectively how technologies implemented within healthcare systems are integrated into a vast network, and so cannot be considered in the same way as adopted in a 'standalone' approach to the implementation of technologies within healthcare.

Moving away from the more specific focus in the first four sections of the book, the remaining parts focus on more generic concerns impacting the delivery of mobile e-health: ethics, theory and service provision (Part 5) and privacy and legal requirements (Part 6). These chapters manage to achieve a balanced perspective by highlighting both the benefits of mobile e-health, as well as the drawbacks, limited evidence base and areas of concern. Chapter 9 provides a critique of the lack of developmental theory and developmental approaches of digital games across the lifespan. Old age is currently being the most advanced theoretical and empirical evidence base and so, as the chapter argues, provides future directions for the development of theory. Chapter 10 looks at more contextual issues in designing technologies to be used in homecare, highlighting the complex, systemic barriers that exist when trying to design technology around the user and their social requirements. Although the section is entitled 'ethics, theory and service provision' there is limited discussion of the ethical issues relating to using technologies in homecare, and I would have liked to see more discussion of this here.

Privacy, safety and trust issues are highlighted in the next part (Chapter 11), with an argument being made for the introduction of ethico-legal frameworks to safeguard users' privacy. The authors acknowledge that as much as mobile e-health allows individuals to take control of their own health and independently access healthcare, problems are created for healthcare professionals, services and organisations. Furthermore, the safety of commercially available apps is discussed, highlighting current vulnerabilities and concerns of current regulatory frameworks (Chapters 12 and 13). Both chapters provide an understanding of legal regulatory requirements across Europe and the USA, in a manner suitable to novices in the field. The chapters also provide practical advice for regulating apps, and an understanding of how some commercially available apps slip through established regulatory requirements.

The book concludes by stressing the importance of all individuals being able to

benefit from this technology and advocating user involvement to help understand individual needs and context. The future of mobile e-health is discussed, and the need for further academic contribution from multiple fields examining areas across the lifespan, specifically: functionality, usability, acceptability, theory, cultural differences and ethics.

This book is aimed at an academic audience and provides a collection of informative essays in distinct areas of mobile e-health. The book makes a novel contribution to the field as well as highlighting the current evidence base and the gaps therein. This is a great resource for academics with an existing understanding of, and some expertise in, the area.

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