

Book Review

Research Handbook on International Migration and Digital Technology

Reviewed by Yuan Ren, Shanghai Dianji University, China

Reviewed by Xiaomin Xu, Shanghai Dianji University, China

This research handbook is a very forward-looking publication. It showcases cutting-edge research on the relationship between international migration and digital technology (Andersson, 2019; Hansen, 2021). It sheds new light on the interlinkages between digitalization and migration patterns and processes globally, capturing the latest research technologies and data sources (Hollifield, 2021; Thiollet, 2021). Featuring international migration in all facets from the migration of tech sector specialists through to refugee displacement, leading contributors offer strategic insights into the future of migration and mobility. Covering diverse geographies and using interdisciplinary approaches, contributions also provide new analysis of migration futures (Nedelcu, 2019). The practical applications and limitations of digital technology in relation to international migration are also highlighted and supported with key case studies.

Chapter 1 presents an overview of international migration and digital technology. The aim of this book is to highlight salient and emerging issues related to the increasing interdependence between international migration and digital technology. How this technology is shaping our lives has been, and continues to be, well documented in the broader literature. This chapter draws together the latest research and knowledge on the various aspects of this topic, providing an overview of the state of the art in the field while also assessing the future scope of research and scholarly enquiry.

The remainder of this book is divided into six parts. The first part “Understanding Migration Patterns and Processes: Digital Technology and Migration Research and Analysis” includes Chapter 2 through Chapter 6. Chapter 2 takes digital migration studies to refer to an emerging interdisciplinary research area. It is concerned with ontological questions that allow for critical scrutiny of the conditions - political, socio-economic, historical, cultural, technological and ideological - through which migrants are produced.

Chapter 3 provides an overview of migration data collections that can help provide a sounder basis for migration research. This is first undertaken for traditional sources of migration data such as censuses, administrative sources and surveys before exploring newer sources such mobile phone call detail records or geo-tagged digital records from social media.

In Chapter 4, the authors step through key issues of migration data science highly relevant to policy processes, with particular reference to international migration flows and its intersections with human mobility. It is found that while the ongoing search for improved understanding of migration

flows remains a pressing issue in scholarly and policy spheres, new technologies are increasingly capturing mobility rather than migration data.

Chapter 5 aims to outline major aspects of the practice and politics of data visualization. After introducing a typology informed by design practice that expresses how a visualization's audience and purpose contribute towards its eventual form, the authors apply this typology to several migration visualizations. Then, the authors consider how visualizations - as well as the technologies and design processes underpinning them - represent and generate new forms of data politics. As a result, the authors argue these open new questions about how, for whom, and in which circumstances data visualization matters in the domain of migration and mobility.

Social capital and information and communication technologies (ICTs) play important, and often overlapping, roles in cross-border immigration to the United States. Drawing from interviews with migrants and migrant-aid workers and review of academic literature, Chapter 6 finds that social capital plays a significant role in migrants' decisions to take the perilous journey of crossing international borders. ICTs foster immigrants' social capital and help them during their transitory period of migration as well as when adjusting to life in a new country.

The second part of the book "Digital Technology and The Act of Moving: (Im)Mobility, Barriers and Borders" includes Chapter 7 through Chapter 11. Chapter 7 provides an historical overview of research on mobility analysis through mobile call data records (CDR), highlights practical issues such as data gaps and biases, discusses ethics and privacy principles that must be taken into consideration when working with such sensitive data, and argues that migration studies and humanitarian response projects may benefit greatly from the use of real-time or historical mobile CDR data.

Chapter 8 explores the question of the role of ICT in human smuggling and provides a critical appreciation of the emerging research literature around it.

Chapter 9 examines how technologies used in the management of migration impinge on human rights with little international regulation, arguing that this lack of regulation is deliberate, as states single out the migrant population as a viable testing ground for new technologies.

After reviewing various perspectives on using drones for border control, Chapter 10 describes growing use of drones along borders among the world's states, examines the proliferation of an increasing variety of hobbyist and commercial drones, considers Non-Governmental Organization (NGO) policy positions on drones and increasing NGO use of hobbyist and commercial drones and explores emerging developments that may pose future challenges with major political and ethical implications.

In Chapter 11, the authors first review advances in the study of migration networks and recent work that has employed network analysis to examine such networks at different geographical scales, and then propose ways to leverage network analysis in concert with digital technologies and online geolocated data to examine the structure and dynamics of migration networks. The authors detail the challenges that the implementation of approaches for studying migration networks faces, and then consider possible ways of linking digital geolocated data to administrative and survey data as a way of harnessing new technologies to construct increasingly realistic migration networks. The authors also briefly discuss new methods in network analysis and adjacent fields that can help advance understanding of macroscale patterns of migration.

The third part of the book "Integration, Reintegration and Migrants' (Digital) (Virtual) (Transnational) Identities" include chapter 12 through chapter 16. Building on the vast literature existing on migrants' appropriation of mobile technology and, more broadly, of ICTs, Chapter 12 first explores the relationship between inclusion and appropriation of mobile technology as exercises of migrants' agency. This preliminary overview will set the grounds for better understanding migrants' digital practices for their own inclusion and the obstacles they may face.

Based on an extensive literature review, Chapter 13 systematically presents existing freely accessible approaches to online education and possible future technologies, and it discusses critically how they can be used to integrate refugees into higher education.

Chapter 14 explores the economic and religious transnational practices of material wealth and health seeking Cameroonian migrants in Cape Town, South Africa. It seeks to understand how and the extent to which the appropriation of ICTs, is redefining migrants' transnational activities that go beyond the connectedness between the host and home country nexus.

Drawing on both literature review and empirical evidence, Chapter 15 seeks to provide a comprehensive insight into the dual role of ICTs in shaping life experiences of transnational families. The empirical case study presented in the chapter is derived from a two-year ethnographic research on ICT domestication by a group of Chinese migrant mothers in Singapore.

Chapter 16 reflects on commonly held assumptions and poses a central question: does technology support or impede return and reintegration processes? The chapter relies on limited available evidence to examine the benefits and risks offered by ICTs in return and reintegration contexts, and to highlight knowledge gaps and programming opportunities in relation to this question. The authors use a range of examples from around the world to offer a representation of the varying degrees to which states, organizations and migrants use (or miss out on using) technology to inform return and reintegration processes.

Part 4 "Connectivity and Migration: Trends and Impacts" includes Chapter 17 through Chapter 21. Chapter 17 explores the potential for leveraging increasing digital connectivity to better engage and empower migrant workers. It examines the growth of digital platforms in four domains: providing migrant workers with information on their legal rights and market conditions; empowering migrant workers to rate and review their employers and recruiters; promoting solidarity and collective organizing; and finally, supporting access to justice. This chapter also considers the ethical and practical challenges, risks and trade-offs that these technological interventions bring. Ultimately, it concludes, digital initiatives are most likely to be successful where they are well-integrated into an organization's broader (typically offline) programs with well-conceived theories of change.

Chapter 18 examines the ways in which Mobile Money has facilitated the financial inclusion of migrants and explores, through key examples and analysis, how these platforms have enabled the cheaper, safer and faster transfer of remittances, made it possible to make digital cash transfers in displacement contexts, supported migrants' economic activities and their potential to enable migrants' access to credit. This chapter also underscores the significant challenges when it comes to access to Mobile Money services, including the persistent gender gap in both the ownership of mobile phones and use of Mobile Money services.

Chapter 19 aims to revisit the current debates on the gender dimension of ICT in the context of migration with the aim to chart the direction of future research in the field. More specifically, it aims to describe, analyze and critically appraise, where applicable, the framing of debates around gender and technology in the context of migration in existing literature. Ultimately, this chapter aims to move beyond the apparent difference between women and men in their access to and use of ICT to reflect on the way gender and gender relations are shaped, performed and transformed in the context of migration in the digital society.

Chapter 20 looks into the background to skill formation that led to the rise of Indian tech-professionals and entrepreneurs in the foreground of their global mobility in the 21st century. It refers to the demand and supply mismatch of the first generation of highly skilled knowledge workers born and educated in India and being absorbed gainfully in the global labor market of the developed west, primarily in the United States. This chapter then refers to the second generation of tech-professionals and entrepreneurs born in India but educated at the tertiary level in the US. It provides a comparison between India and China, both major countries of origin of hi-tech professionals and entrepreneurs migrating to the global labor markets. It also highlights both the paradigm shift and gradual change in the mobility pattern of tech-professionals - turning them into entrepreneurs and their specific skills into generic. The chapter finally attempts to illuminate the areas where the role of Indian migrants and diaspora tech-professionals and entrepreneurs in the US have seamless potential and possibilities.

In Chapter 21, the authors argue that the current political and social moment, with xenophobia on the rise and a pandemic raging, has more than ever highlighted the need to effectively facilitate the freedom of information while providing robust oversight to identify false, misleading, or inaccurate information, to ensure data privacy, and to expand access to technology for vulnerable groups.

The fifth part of the book “Migration, Technology and Public Debates” includes Chapter 22 through Chapter 24. Chapter 22 outlines disinformation as a process that engages different actors, platforms, and audiences. It provides an analysis of disinformation narratives about immigration, explores how platform structures enable anti-immigrant manipulation tactics, and outlines potential countermeasures. Ultimately, the authors suggest that efforts to counter anti-immigrant disinformation require multiple overlapping actions that reduce exposure to disinformation while also addressing more deep-seated issues surrounding the crisis of legitimacy within democracy and declining trust in institutions.

In Chapter 23, networked publics are studied. Networked publics are groups that communicate with each other over common concerns using digital media tools and online platforms. As a sign of their growing political significance in liberal democracies, networked publics have become increasingly visible actors in immigration debates. At the same time, these publics operate in a conflictual relationship not only with political authorities but also with one another.

Chapter 24 examines the first-hand experience of one of the authors of this chapter and that of his fellow detainees, illustrating both the setbacks they faced and their advocacy successes, while suffering human rights abuses. While their experiences largely align with scholarly research on the topic, ten new lessons are drawn that show the conditions under which using new media platforms for human rights advocacy can improve the situations of individuals and groups’ and can encourage the formation of social movements and transnational advocacy championing their rights.

The last part “Digital Migration Futures” includes Chapter 25 through Chapter 28. Chapter 25 argues technologies appear in migration processes in three ways: as an instrument, a network and a world view. These different notions of technology overlap, coincide and vary in time. As a result, technologies transform the categories of place, time and action. These transformations produce hybrid relations of technologies, implicate different temporal regimes for various groups of migrants and give rise to a multiplicity of actors and institutions related to migration issues.

Chapter 26 presents an overview of approaches to forecasting international migration in the context of technological innovation. International migration is the most difficult to forecast component of population change. It is associated with uncertainty due to the lack of a unique definition, complexity of migration drivers, and incomplete or inadequate data.

In Chapter 27, the authors contend that although migrants and refugees heavily rely on social media and mobile phone applications to cross borders and express solidarity with each other, the power of governments and corporations to deploy surveillance technologies to control, manage, manipulate and indeed halt, migratory movements is far greater. This chapter offers a comparison, contrasting the ways that new technologies are used to surveil migratory movements with how they are used by migrants/refugees to resolve the challenges they encounter during and after the journey.

The last chapter provides initial analysis of the impacts of COVID19 on mobility and migration globally with reference to the uptake of digital technology in pandemic response as well as reflections on the key strategic implications for migration and mobility systems. Initial data indicate that COVID-19 has resulted in mass immobility, with countries enacting unprecedented restrictions on freedom of movement as well as a surge in population surveillance technologies for contact tracing measures, including through the use of AI systems.

This publication received rave reviews from many scholars. Vincent Chetail, Graduate Institute, Switzerland, rated this book “A pioneer Research Handbook in a burgeoning field mapping the multifaceted interlinkages between international migration and digital technology. This edited volume fills a huge gap in the current literature, providing the state of the art and exploring future avenues to better understand the profound impact of digital transformations upon the processes, patterns

and politics of migration. While offering a rich array of topics, perspectives and disciplines, this Research Handbook illuminates the complexities and controversies surrounding digital technology as a facilitator and a disruptor of international migration. The reader will find insightful analyses of many topical issues, including the use of digital technology in migration research and analysis, its role as a tool of empowerment and agency of migrants across the migration cycle, the digitalization and automation of border control and population surveillance, and the spread of disinformation in the public debate. A must-read for anyone interested in the cutting-edge issues associated with migration and digital technology". Katharine M. Donato, Institute for the Study of International Migration, Georgetown University, US, commented "This book is a must-read for everyone interested in the intersection between migration and digitalization. As the volume of data grows from expanding forms of technology, the implications for understanding migration are wide-ranging. Impressive in scope, this book offers us a lens for examining how data-driven technologies are reshaping migration in fundamental ways". Andrew Geddes, European University Institute, Italy, said "This Research Handbook is a major advance in the study of the relationship between international migration and digital technology. Not only does it powerfully synthesize an emerging and hugely important field of research, but it also establishes new agendas for future enquiry". Anna Triandafyllidou, Ryerson University, Canada, suggested "This is a much-needed Research Handbook on how the rapid evolution of digital technologies is changing international migration pathways and policies. Contributions to this volume highlight the challenges of advanced technologies for human rights violations, as well as the possibilities they open up for migrant connectivity across time and space. A must-have for students, researchers and media and policy professionals working in this field."

This handbook will not only be an invaluable resource for researchers in the fields of migration and digital technology, but also benefit policy makers and civil society actors specializing in migration.

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Marie McAuliffe

Edward Elgar Publishing, 2021

464 pages

\$280.00

ISBN 978-1-83910-060-4

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Ren Yuan is an instructor at Shanghai Dianji University. He was born in 1984. He received his bachelor's degree in mathematics from Jilin University in 2007, and doctor's degree in computer software from Fudan University in 2013. His multidisciplinary research interests include image understanding, artificial intelligence and data science.

Xiaomin Xu is an Associate Professor of Quality Management Engineering in the School of Business, Shanghai Dianji University. She has a B.E. in China University of Mining and Technology, a M.M. in Management Science and Engineering from Nanjing University of Science and Technology, and a Ph.D. in Management Science and Engineering from Beijing University of Science and Technology. Her research interests include statistical data analysis, quality management, operation management and logistics management. Her work has appeared in *IGI Global*, *Statistics and Decision*, *Statistical and Decision Making*, *Technical Economics and Management*, *Journal of Management and Training for Industries*, and *Journal of Shanghai Dianji University*.