

Chinese American Educational Research
and Development Association Book Series

Lifelong Learning

The Education of the Aging Population



Edited by
Qiu Wang
Guofang Wan
Dominick Fantacone

Lifelong Learning

Chinese American Educational Research and Development Association Book Series

Series Editor: Guofang Wan

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And

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ABOUT THE EDITORS

Qiu Wang is a professor of quantitative research methodology at Syracuse University. His research interests include educational assessment, large-scale and big-data analyses using factor analysis, structural equation modeling, and data mining methods; intervention effect estimation and propensity score matching in program evaluation through synthetic cohort design and measurement error modeling in math/science education; and human development and changes in school settings with foci on empirical contemplative studies, technology and human-computer interaction, and individuals with special needs. He has published relevant/collaborative works in more than 40 journals. He has served as the outside evaluator and consultant on several projects funded by nonprofit and federal agents including DOE, DOD, NIH, and NSF. He has served as a (Co-)PI, co-investigator, and senior/statistician personnel on 20 finished/ongoing grants.

Guofang Wan is a professor of curriculum and instruction. Her higher education career includes 25 years of experience at universities in the USA. Dr. Wan is an international and national award-winning researcher and author with numerous publications and grants. Her research interests range from teacher education, the education of diverse student populations to impact of artificial intelligence on education. She received a Fulbright distinguished scholar award recently.

Dominick Fantacone is the Assistant Director for Regional Operations for the NYS Master Teacher Program. He is an instructor in Childhood/Early Childhood Education at the State University of New York College at Cortland. Fantacone has received two awards for Excellence in Research, Scholarship, and Outreach and serves as PI on a multiyear grant with the Office of Naval Research. His research interests include science teacher

education, teacher professional development, andragogy, adult learning theory, and Q methodology. He holds a PhD in science education from Syracuse University and a master's degree in adolescent education science (State University of New York College at Cortland) and management/leadership (Rochester Institute of Technology).

ABOUT THE CONTRIBUTORS

Dr. Suwithida Charungkaittikul is currently the Southeast Asian Network Coordinator. She is a professor at Lifelong Education Department, Faculty of Education, Chulalongkorn University, Bangkok, Thailand. She holds a doctorate degree in Non-Formal Education (Adult and Lifelong Education) from Chulalongkorn University. From 2010 until 2011, she was a research fellow in the Andragogy Doctoral Emphasis Specialty Instructional Leadership Program at Lindenwood University, USA, where she completed her postdoctoral training in Education Andragogy and Learning Society Development. She has published many research and academic articles, as well as, books in learning city/society/region development, lifelong learning policy, adult learning and education, and nonformal and informal education, etc. Her most recent publications include books titled, “Concepts and Guidelines for Enhancing Lifelong Learning in Thailand” (Suwithida Charungkaittikul, 2021) and “The eight pillars of lifelong education: Thailand studies” (Cameron Richards and Suwithida Charungkaittikul, Editors, 2016).

Kevin M. Connaughton currently serves as the Manager of Adult Learning at the National Resource Center for Osher Institutes, Northwestern University, USA. In this role, he works on instructional design activities for Osher Institutes, including digital learning development, research, and content resource development. Kevin has almost 20 years of experience in higher education, previously serving in training, administration, program management, and faculty roles. Before his education experience, he worked in art and media positions as a graphic designer and illustrator. Kevin holds a Master’s degree in Education from St. Xavier University and a Master of Fine Art from Governors State University.

Edwin Creely is a senior lecturer in the Faculty of Education at Monash University in Melbourne, Australia. He is a widely published academic with an interest in critical discourse analysis, literacy and language learning, creativity, poetry, creative writing, theory and philosophy (especially phenomenology),

digital pedagogy and technology, artificial intelligence, initial teacher education, Buddhist thought, and lifelong learning. He has wide ranging experience in education from primary and secondary to tertiary and adult education. He has worked as a voluntary tutor for the University of the Third Age (U3A) for many years, and has a strong interest in positive aging.

Luke Creely is a writer, filmmaker and academic in Film, Screen, Animation at Queensland University of Technology (QUT). His research areas include Australian national cinema, horror cinema, film style and directing craft, and film production. He has been published in JCMS (Journal of Cinema and Media Studies), and is an award-winning writer, director and producer at Australian-based film company, LC Films.

R. Jack Hansen received Engineering degrees from Stanford University (BS) and M.I.T. (ScD) Most of his career was in research leadership, serving as Deputy Center Director for Research of the NASA Ames Research Center and Associate Director of the Florida Institute for Human and Machine Cognition. Additionally, he has authored or co-authored over 80 papers in academic journals on fluid dynamics, acoustics, and US research policy. Since retiring, he has co-authored two books on the personal dimensions of preparing for and living in retirement. He is active in the OLLI Program at Furman University and has worked with the OLLI National Resource Center for the last decade on designing and interpreting the results of biannual national surveys of the OLLI population.

Dr. John A. Henschke (EdD) has been involved in the Field of Adult Education/Andragogy for 57 years since 1967. Andragogy is the art and science of helping facilitate the learning of adults. On 12/31/16, he became Emeritus Professor of Andragogy at Lindenwood University, St. Charles, MO. He has researched, tested and refined his ideas on Andragogy in the USA and 18 other countries through University Courses, Community Programs, Non-Governmental Agencies, Business and Industrial Corporations, Religious and Christian Entities, Adult Basic and Literacy Education, and worked with adult learning participants in and/or from human resource development corporations and academia from 97 foreign countries. Dr. Henschke served 2 years as 2014 and 2015 Board Chair of the International Adult & Continuing Education Hall of Fame (IACEHOF), is a Visiting Professor of the Beijing Radio and Television University (PRC), is a Past-President of the American Association for Adult and Continuing Education, a Past President of the Missouri State, USA/Para, Brazil Partners of the Americas, Inc, served as Andragogy Professor at the University of Missouri for 39 years and Lindenwood University for 7 years. He developed, Cronbach/Alpha validated for reliability his Modified Instructional Perspectives Inventory (45 item, 7 factor) 3 times with “Teacher Trust of Learners” consistently

being the strongest Factor, and has been used in 33 successfully completed doctoral dissertations at 10 different universities around the world.

Richard C. Knopf is an emeritus professor of Community Resources and Development at Arizona State University, USA. He currently holds the position of Senior Advisor for the Osher Lifelong Learning Institute at ASU, where he formerly served as its director. He also participates in a multinational steering committee integrating Age-Friendly design principles into universities worldwide. His research interests encompass lifelong learning pedagogy, the impact of community formation on enhancing learning experiences, and the factors contributing to abundant aging and social well-being.

Ying Kuang, MA, a teacher at Shanghai Jing'an District Amateur University, a part-time researcher at the Shanghai Municipal Institute for Lifelong Education. After obtaining a master's degree in educational leadership at the University of Manchester, she graduated from East China Normal University with a master's degree in Adult Education. Now she is engaged in Education for Sustainable Development (ESD) and focuses on lifelong education, elderly education, and community education.

Harusuke Kubota, PhD, is a professor in the Faculty of Letters, Arts and Sciences at Waseda University in Tokyo, Japan. He specializes in the history of educational gerontology and learning methods for older adults. His recent research focuses on death education for older adults and the learning processes involved in older people's participation in local communities within a super-aged society.

Ai-Tzu Li earned her doctoral degree from Rutgers, the State University of New Jersey in USA. She is currently a professor at Department of Adult & Continuing Education of National Chung Cheng University in Taiwan. Her main research interest includes program planning, training design & evaluation as well as mid-aged career development. Ai Tzu Li has published more than 50 research articles in leading journals, conference proceedings and books. She has been invited to be a reviewer for international journals, Science and Technology research proposals, and local journals. Besides, she also has extensive experience in training the trainers in the field of elder education, medical education and civil service development.

Dr. Jiacheng Li is a professor of East China Normal University, the director of Shanghai Municipal Institute for Lifelong Education. Jiacheng Li's research interests include lifelong education, school-family partnership, and student learning in everyday school life. He is the author of *Caring for Life: School*

Reform in China (2006), Student Development in Everyday Classroom Life (2015), and the co-authors of School Leadership Reform in China (2007), School Life and Student Development (2009), Manual for School-Family Partnership (2016), Hello, Winter Vacation! (2018), and the chair of book series of Shanghai Report on Lifelong Education Development. He is the author of over one hundred of journal papers and book chapters. He is working with hundreds of Chinese teachers and principals, and collaborating with scholars from UNESCO UIL, USA, UK, New Zealand and international NGOs.

Wenshu Li, PhD, is a teacher in the Department of Social Work of the Faculty of Law, Shandong Jianzhu University. She graduated from the Department of Education, Faculty of Education, East China Normal University, and is a visiting scholar at the Faculty of Social Sciences and Education, University of Tromsø, Norway. Her main research areas are home-school-community cooperation and she has written extensively on the topic of lifelong education, lifelong learning, and community governance.

Virginia Miller, with a Master of Science in Community Development from ASU's Watts College, specializes in sustainable tourism and community development. As Community Enrichment Coordinator at OLLI at ASU, she excelled in developing educational and outreach programs. Her thesis explored grief and community through autoethnography. Virginia also trained in Mindfulness Leadership and Compassionate Bereavement Care.

Hamit Özen is a scholar specializing in school leadership and educational policy. He is currently a faculty member at the College of Education, Eskişehir Osmangazi University in Eskişehir, Türkiye. His research interests include school leadership, as well as the theories and practices within the sociology of education. Assoc. Prof. Özen's work focuses on examining the complexities of educational leadership and the sociological factors that impact educational systems. His contributions to the field have provided valuable insights into the development of effective leadership practices and educational policies, enhancing the academic discourse on these critical issues.

Aldona Podgórnaiak-Krzykacz, PhD, is an assistant professor at the University of Lodz, Poland. Her research interest and actual research focus on the local and regional government, public management and governance, sustainable local development, local policy, smart cities and aging.

Justyna Przywojska, PhD, is an assistant professor at the University of Lodz, Poland. Her research interests focus on the issues related to sustainable, smart local development and urban regeneration, aging, public management, local social policy.

Päivi Rasi-Heikkinen, PhD, SScD, is a Professor of Education at the University of Lapland's Faculty of Education, Finland, and Associate Professor of Media Education at the University of Helsinki, Finland. She has extensive experience of working in and leading research and development projects in the field of media literacy education, focusing, in particular, in older people's media literacies.

Stacey H. Rivera, Manager of Operations for the National Resource Center for Osher Lifelong Learning Institutes (Osher NRC), Northwestern University, USA, has worked in higher education for over 15 years. She has a BA from the University of California Santa Barbara and an MA in Organization Management and Development from Fielding Graduate University. Her current work for the Osher NRC focuses on network communications and technologies, research and data analysis in older adult lifelong learning and program administration, and coordination and administration of National Conferences for lifelong learning administrators and volunteers.

Hakan Sönmez is an English Teacher at the Bilecik Provincial Directorate of National Education in Turkey. He completed his undergraduate studies in English Language Teaching at Anadolu University, Faculty of Education in Eskişehir in 2011. He also holds a Bachelor's degree in International Relations from Anadolu University's Faculty of Economics, completed in 2016. He earned a Master's degree in Educational Administration, Supervision, Planning, and Economics from Eskişehir Osmangazi University, Institute of Educational Sciences in 2018. Since 2012, he has served as a teacher, vice principal, and principal in public schools. His research interests include educational leadership, education for elderly individuals, foreign language teaching, and organizational motivation.

Jane Southcott is a Professor, Faculty of Education, Monash University, Australia. As a phenomenologist, Jane researches education, cultural identities and hybridity, and community engagement with the arts focusing on positive aging. Jane is a music and arts educator with experience in primary, secondary, tertiary and informal educational settings. She has undertaken qualitative research in community arts engagement including choirs, music ensembles, and U3A programs. Jane is also an interpretative narrative historian and much of her research is biographical or institutional. She supervises many postgraduate doctoral research students.

Craig A. Talmage, Associate Professor of Management and Entrepreneurship at Hobart & William Smith Colleges, USA, has 20+ years of nonprofit and public sector experience. He founded a research consulting practice in Arizona and now serves as editor-in-chief of *Community Development*,

published by Taylor and Francis. Talmage holds a PhD from ASU and teaches at HWS and ASU. He has published research about age-friendly universities, lifelong learning, older adults, and their wellbeing since 2015.

Steven P. Thaxton joined the National Resource Center for Osher Lifelong Learning Institutes (Osher NRC) at Northwestern University, USA as Executive Director in 2015. Prior to serving as a graduate research assistant at the original Osher NRC at the University of Southern Maine from 2013 to 14, he spent 33 years in management and consulting positions for two US-based television station ownership groups. Thaxton holds a bachelor's degree from the University of Minnesota and an MS in Adult and Higher Education from the University of Southern Maine (USM).

Shuli Tu, a senior teacher at Quanxi Town Primary School, China, has been rooted in rural education and teaching for 26 years. She has been awarded as the Excellent Class Teacher of Jinhua City, the first Top Ten Class Teacher of Wuyi County, the “Top Ten” Young Pioneer Instructor of Wuyi County, Wuyi County excellent Class collective construction studio tutor, and the discipline leader of the fourth class collective construction of Wuyi County. Since 2019, she has been conducting research on intergenerational learning, actively exploring the study of “Intergenerational Learning Activities,” and has published several articles. Four typical cases have been included in the “Family-based Instruction Manual for Intergenerational Learning” and two articles included in the Guidance manual for rural home-school cooperation edited by East China Normal University.

Selahattin Turan is Professor of Educational Leadership at Bursa Uludağ University and received his BA from Ankara University and MA & PhD from the Ohio University in Educational Leadership. He was past president of the International Society for Educational Planning and ECO Educational Institute. His primary professional interests are educational leadership and policy and alternative perspectives in education. Dr Turan is co-authored many book chapters and on the editorial boards of many national and international journals. His recent books include, *Educational Administration* (2021, ASOS) and *Demystifying Educational Leadership and Administration in the Middle East and North Africa* (Co-Editor, 2024, Routledge).

Min Wang, MA, Vice President of Shanghai University for the Elderly, Director of Shanghai Senior Education Learning Achievement Exhibition Center, Deputy Director of the Distance Education Working Committee of China Association of Senior Universities. She has been engaged in the management and research of vocational education, basic education, senior education, senior distance education, and senior education informatization for a long time, and has made a series of achievements.

Qianran Wang, PhD, is an assistant professor of Institute of Asia-Pacific Studies at Waseda University. Her research focuses on educational gerontology at community level, community activation through self-determined learning, and Japanese social education.

Hui-Chuan Wei holds a PhD in Educational Policy and Administration from the University of Minnesota, USA. She is the Principal Investigator of Taiwan's Active Aging Learning Program, funded by the Ministry of Education. Professor Wei has been leading this program since its establishment in 2008, overseeing its development for over 15 years. Her current research focuses on life design, and she is the first in Taiwan to offer a course on life design for the second half of life, specifically targeting middle-aged and senior citizens in her master's and doctoral programs. Professor Wei has published three books on this subject. She is also a professor and the former chair of the Department of Adult and Continuing Education at National Chung Cheng University, Taiwan. Additionally, near the university campus, Professor Wei manages a farm that also functions as a communal learning-based care center called "Active Aging on the Ark."

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PREFACE

The number of Americans ages 65 and older is projected to increase from 58 million in 2022 to 82 million by 2050 (a 47% increase), and the 65-and-older age group's share of the total population is projected to rise from 17% to 23%. ([Mather & Scommegna, 2024](#))

This staggering statistic demonstrates an urgent need for research into new policies and practices that support the growing number of aging adults in the United States and worldwide. Since the United States Department of Health, Education, and Welfare initialized age-integrated education in 1961, there have been broad discussions about educating citizens on how to better survive and live in such an aging world ([United Nations, 2015](#)). In 2017, the global population aged 60 and above was 962 million, twice as large as it was in 1980 (382 million); and the number is projected to reach 2.1 billion in 2050 ([United Nations, 2017](#)). The increased longevity and worldwide aging perspectives ([McGuire, 2017](#)) need to be successfully integrated into age-friendly learning environments ([WHO, 2018](#)) to reduce agism ([Crawford, 2000, 2015](#)) in the information technology and post-pandemic era.

This book brings together research and ideas from expert scholars, educators, advocates, policy makers, and community leaders from Australia, China, Finland, Japan, Poland, Taiwan, Thailand, Turkey, and the United States. These scholars and professionals share their findings and address issues in lifelong learning of an aging population from multi-methodologically geragogical perspectives. They also search for insights on strategies for equitable geriatric education for the post-pandemic era. The diverse findings on the teaching and learning geragogy that occurs in technology-rich environments allow audiences to see how different countries deal with the same social, cultural, educational, technological, and political equity issues in lifelong learning.

We have included studies representing a variety of perspectives and research methods, rich and informative in their analysis of the issues around aging populations under country-specific contexts and in the discussion of the strategies to improve life-long education of an aging society. The chapters address some common themes as listed below.

1. The key trends, status, major theories and models of life-long education for the aging population in researchers' respective countries.
2. Issues and challenges that exist in designing life-long education opportunities for the aging population.
3. Effective and successful practices and models that may benefit other countries.

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Qiu Wang

Words are powerless to express my gratitude to the seniors in my life: my grandparents, my parents, my in-laws, and my professors, who allowed me to witness the second half of their lives. They inspired me to dedicate my research to lifelong learning for seniors and to add joy to the lives of all seniors around the world. They awoke me to the significant role that education can play in the unique population of the current society.

Thank you to the authors of the book chapters and my co-editors, Dr. Wang and Dr. Fantacone. I am beyond grateful for your invaluable contributions, wealth of knowledge, dedication, and the crucial role you played in the book's success. I am genuinely honored to team up with you.

To my husband, Hong, and daughter, Melissa, thank you for your love, patience, and understanding while I worked on the project.

Guofang Wan

To say that working on this book has been inspiring only summarizes how I feel about the process of putting this volume together. This has been an extremely exciting project around a critically important topic to so many people. I am incredibly grateful to Drs. Wang and Wan for inviting me to join them in this exploration of lifelong learning. It has been a great pleasure connecting with so many dedicated scholars worldwide and learning from their work. Their contributions to this book and the field are invaluable in moving forward the efforts to support aging individuals from all corners of the globe. I have grown as a scholar through my interactions and communications with these experts. I hope that researchers, policymakers, and other relevant stakeholders will reflect on the useful information contained within these pages as they develop strategies and structures to meet the growing need that is rapidly evolving. After all, we will all reach a point where we can benefit from new and emerging ideas that improve the quality of life for the aging. Finally, I would like to thank my husband and parents who have continually supported my efforts.

Dominick Fantacone

INTRODUCTION

Chapter 1, *Education for Digital Inclusion of the Elderly in the Light of Government Strategies: The Example of Poland*, presents digital education as a method for reducing the digital exclusion of older adults in Poland and analyze governmental strategies adopted. The approach enacted in Poland can serve as a model for other countries seeking to address digital exclusion among seniors.

In Chapter 2, *Age-friendly Learning Environments to Support Older People's Media Literacies*, researchers from Finland discuss the critical topics of older people, learning environment, media literacy, geragogy, and age-friendliness. The Chapter provides insights on creating age-friendly learning environment to support older people's media literacies, drawing on theoretical frameworks and previous empirical research on learning environments. Insights on how to design and fine-tune learning environments to better respond to the needs, learning processes, and preferences of older people are shared.

Digital transformation has fundamentally changed people's living attitudes and behaviors in modern society, especially under the circumstance of the COVID-19 crisis. Shanghai University for the Elderly (SHUE) in China built a smart campus to address the issue. Chapter 3, *Smart Campus Bridges the Digital Gap: A Case Study of Shanghai University for the Elderly*, analyzes the smart campus of SHUE and further explores the principle and value of building such a space.

Chapter 4, titled *Facilitating Active Learning Among the Aging Population in Taiwan: The 1-2-3 Instructional Model*, provides a new perspective, attitude, and policies to accommodate the changing environment to echo the rapid growth of the aging population. Through the establishment of Active Aging Learning Centers (AALCs) in local areas, individuals aged 55 and above (also known as Le-Ling) are encouraged to participate in continuing education to foster the mindset of "active aging."

Chapter 5, *Lifelong Learning and Well-Being: Lessons from US Older Adults Before and During COVID-19*, provides insights regarding promise of lifelong learning in enhancing well-being before and during the COVID-19 pandemic. The Chapter responds to questions on improving lifelong learning research and institutional practices.

With the acceleration of urbanization and rapid aging development in China, more rural left-behind children live with their grandparents as rural young people migrate to cities for work. Although the elderly in rural areas can care for their grandchildren and share parenting responsibilities, the “digital divide” between them and generational differences lead to apparent estrangement and even conflict in their values and behaviors. Chapter 6, *Promoting Intergenerational Learning Between the Elderly and Children Through Home-School Collaboration: A Study in A Chinese Rural Community*, explores how participants from a primary school implemented an intergenerational project and learned from its impact.

In Chapter 7, *Japanese Social Education and the Aging Problems in Underpopulated Areas*, researchers from Japan discuss the importance and the implications of older adults’ self-initiated learning in underpopulated areas. Their research demonstrates how the Japanese social education concept was applied to solve underpopulated areas’ aging problems and why it was necessary.

Chapter 8 from Australia uses the creative writing approach, titled *Embracing Positive Aging in a Small Poetry-writing Community: Writing and Sense of Belonging*. One promising approach to positive aging is the development of meaningful and creative communities of older people built around purposeful activities. This Chapter explores one such community: a small poetry-writing commune in Melbourne, Australia, that is part of the University of the Third Age (U3A).

The life expectancy of individuals is increasing in the modern world. However, the current education paradigm that covers people’s first periods of life is limited in the solutions available to fulfill their evolving needs. This situation emerges as an issue that remarks on the lifelong learning and education of senior citizens. This qualitative study in chapter 9, *Some Remedies for Lifelong Learning and Improving the Quality of Lifelong Learning Activities for the Turkish Elderly*, explores the improved quality of lifelong learning activities offered to senior citizens to develop their agreeable milieu. It is necessary to design these trainings to align with the needs and interests of these aging individuals and to eliminate the physical and sociological difficulties experienced by these individuals in accessing education.

Chapter 10, *The Effectiveness of Active Aging Learning Centers in Taiwan: From the Perspective of Service Quality*. The study’s purposes were to analyze the AALC service quality, learning outcomes, and life quality perceived by senior learners. It is suggested that AALCs should improve their service quality in the future by taking a more proactive initiative in understanding

the needs of senior learners, including the delivery methods and the course topics, especially the ones in health promotion, positive thinking, and career planning for the second half of their lives, etc.

Lifelong learning is more than adult education and/or training. It is a mindset and a habit for people to acquire as a responsibility for all. Authors from Thailand, in their Chapter (11) *Lifelong Learning: An Andragogical Approach to Education for the Aging Population*, share how andragogical theory suggests that opportunities for lifelong learning must be self-directed, collaborative, and personally relevant to the learner. The Chapter offers a perspective on education about the aging process that is essential for the increasing numbers of baby boomers reaching retirement age and for society as a whole.

Overall, we hope that readers walk away with an appreciation of the urgency for governments and researchers to dedicate resources to designing solutions and infrastructure for supporting aging adults. The diverse findings allow audiences to see in a timely way how different countries deal with the same technological, social, cultural, educational, and equity issues in lifelong learning and geriatric education during the unprecedented pandemic. Our goal is to positively impact lifelong education for the aging population worldwide by learning from one another and sharing what is working and where additional support is needed.

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CHAPTER 1

EDUCATION FOR DIGITAL INCLUSION OF THE ELDERLY IN THE LIGHT OF GOVERNMENT STRATEGIES: THE EXAMPLE OF POLAND

Justyna Przywojska
University of Lodz, Poland

Aldona Podgórnaiak-Krzykacz
University of Lodz, Poland

ABSTRACT

This chapter aims to present digital education as a method of reducing the digital exclusion of older adults in Poland and analyze governmental strategies adopted in this area. The empirical part of the chapter provides statistical data reflecting the scale of the threat of digital exclusion of the elderly population in Poland. In the next step, we provide an overview of strategic activities in digital literacy of the elderly planned within the framework of binding government strategies for national development, regional development, social policy, and digitization.

An analysis of the content of government strategies and programs leads to the conclusion that the Polish government has placed a strong emphasis on the Senior Citizen Policy. Digital education activities for senior citizens

planned and implemented in Poland in 2019–2020 are coherent, inclusive, and relevant. The methodology behind digital education programs for Polish seniors is consistent with the recommendations of other researchers discussed in the theoretical part of the chapter. Furthermore, the approach adopted in Poland can serve as a model for other countries seeking to address digital exclusion among seniors.

This chapter addresses the important education issue for the digital inclusion of older adults in response to demographic transition and technological revolution. The EU Member States face a serious demographic challenge of the aging population. In principle, the problem tackles most European regions. The current demographic situation in Poland is relatively good; however, it exhibits some unfavorable tendencies. Indicators such as the median age, the share of people aged 65+ in the total population, and the age dependency ratio have substantially deteriorated in recent years. In addition, the aging process advances, which can be seen in the growing share of very older adults aged 85+ (2.0% in 2018 compared to 1.2% in 2009).

At the same time, the global technological revolution continues transforming society into an IT society. However, it is hard to unambiguously decide whether the global technological revolution favors the social inclusion of the elderly or, as the case may be, it deepens their exclusion. This chapter is intended to help resolve this dilemma. Studies that have been conducted to date suggest that older adults and young people differ not only as to the frequency with which they use Information and Communication Technologies (ICT) (Andreotti et al., 2017) but also in how they use these technologies (Anderson & Perrin, 2017; Neves et al., 2013). Among people aged 65+ in the EU, 67% use and 29% have never used the Internet (Eurostat, 2021). Older adults also use digital devices such as smartphones to a lesser extent, and only 47% of seniors over 65 in the EU use them to access the Internet.

One of the physical barriers to using ICT by older adults is the need for access to equipment such as a computer, smartphone, or tablet. However, the main reason for the digital exclusion of older adults is lower digital competences (Blažič & Blažič, 2020; Hargittai & Dobransky, 2017). Ongoing technological advances can make it difficult for seniors to keep up with ICTs (Heaggans, 2012). When describing the absence of abilities to use ICT, including the Internet, among older adults, Millward (2003) used the term “grey digital divide.” In addition to low digital competences, reasons for digital exclusion are related to specific developmental characteristics of old age (impaired cognitive skills, declines in perception, concentration, memory, psycho-physical condition, manual limitations, ability to embrace changes, withdrawal from a variety of activities) and the lack of motivation and trust in one’s ability to use ICTs efficiently (Szmigielska et al., 2012). Researchers point to misperceptions of the Internet and ICTs (Berkowsky et al., 2013; Morris et al., 2007), as well as concerns and

reluctance amongst older adults as significant barriers and identify the pattern and complexity of ICT uses (Nimrod, 2018).

Digital exclusion of older people and the associated digital divide represents a barrier to developing innovative digital societies and, in the long term, economic growth. This phenomenon also limits individual development opportunities among the elderly. It can exclude them from a range of services, which in many cases have moved to the digital interface, and with the Covid-19 pandemic, this process has intensified. Poor digital competences of older adults exclude them from access to public services (in particular e-health, e-administration) and private services, work life, social life, communication, and information result, among others, in their limited independence, lower quality of life or lower possibilities to actively influence local community matters. In a world where using the Internet and digital devices is a constant component of our everyday life, older adults feel like outsiders in the digital culture, which has become part of their personality (Blažič & Blažič, 2020). We live in a society divided into digital natives and digital immigrants, which should be considered when designing educational activities aimed at the elderly (Creighton, 2018; Kesharwani, 2020).

The chapter aims to present digital education as a method of reducing the digital exclusion of the elderly population in Poland and analyze governmental strategies in this regard. We examined the following government strategies: Strategy for Responsible Development for the period up to 2020 (including the perspective up to 2030), National Strategy for Regional Development 2030, Program of Integrated State Digitization for 2014–2022, and Social Policy for Senior Citizens 2030: Security–Participation–Solidarity and a report from its implementation. In addition, our analysis covers implementation measures of the Senior Citizen Policy in Poland: Rządowy Program na rzecz Aktywności Społecznej Osób Starszych (ASOS) na lata 2014–2020 - 2014–2020 [the Government Programme for Social Participation of Senior Citizens for 2014–2020] and Aktywni+2021–2025 [Active+2021–2025].

LITERATURE REVIEW

Digital education aimed at seniors belongs to the area of lifelong learning. It consists in developing their digital competences so that they can fully benefit from the advantages offered by modern technologies. It also aims to improve the quality of time spent online, as well as the safety of technology use in an environment of uncontrolled information overload and unfair digital practices. Research shows that seniors involved in digital learning are enthusiastic about acquiring new competences. They are motivated to start digital education by the young people around them, the novelty of things, and the usefulness and versatility of digital skills (Naumanen & Tukiainen, 2009; Yeh, 2022).

The pandemic has shown that digital inclusion is more important than ever to combat loneliness and isolation and fully participate in society. The acquisition and development of digital skills by older adults is an important tool to support their independence and autonomy (González et al., 2015) and to improve their quality of life. Furthermore, digital education leads to more positive attitudes toward using computers and learning how to use them (González et al., 2015; Kim, 2008). The literature review enabled us to develop a summary of the key benefits of digital education for older adults (Table 1.1).

Educating older people in digital skills requires a specific pedagogical approach since older people have specific needs arising from old age-related physical and mental changes, memory loss, decline in cognitive abilities, fear of technology, previous experience in using technology, or motivation and needs (Martínez-Alcalá et al., 2018). Training programs should be tailored to the specific needs of seniors with different levels of digital competence (Quan-Haase et al., 2018). Authors also point to the need to provide a learning environment that is friendly to seniors, a welcoming atmosphere that embraces them with respect and appreciation and is conducive to learning (Yeh, 2022), as well as one that is based on collaboration and positive relationships (Martínez-Alcalá et al., 2018).

TABLE 1.1 Benefits of the Improvement of Digital Competences in Different Spheres of Life of the Elderly

Sphere of Life	Use of Digital Competences	Outcome
Services and shopping	e-health, e-shopping, e-banking, e-administration, e-education, e-commerce	Improved access to products and services, including disease prevention and healthcare services Improved independence and self-confidence
Social communication and integration	Social media and communication tools	Reduction of loneliness and social isolation More social interactions Feeling better
Leisure and recreation, knowledge	Access to information, digital works of art, and culture, education online	More active participation in cultural and educational events, even if the person stays at home Feeling better Personal development Developing one's interests and hobbies Improved creativity

Note: This compilation is based on Khosravi et al. (2016); McMellon and Schiffman (2002); Riley (2013).

Particular roles in this process are attributed to places known and trusted by older people, e.g., senior clubs, community centers, and libraries.

The existing research highlights the benefits of using individual and community-based learning in small groups interactively and collaboratively (Rivinen, 2020). The role of young people as digital educators for seniors is also stressed (Brown & Strommen, 2018; Lee & Kim, 2019). In contrast, research by Martínez-Alcalá et al. (2018) indicated greater effectiveness of blended learning than face-to-face learning in digital education for older adults. This finding is particularly relevant when digital education for seniors is being moved online due to the COVID-19 pandemic. Recent research has also pointed out that playing games could be a very useful tool in facilitating the training of digital skills for older adults learning to use a touchscreen device like a smartphone (Blažič & Blažič, 2020). The perceived enjoyment while playing further contributes to the development of positive digital technology-related emotions in older adults. It is also an interesting idea to train a group of older people as instructors who, after the completion of their training, conduct classes for their peers. Such an idea has been successful in the Chinese organization OldKids, founded in Shanghai (Xie, 2007).

In order to counteract the widening digital divide and digital exclusion of older people, policy initiatives proposing digital education for older people are being implemented in many countries (Martínez-Alcalá et al., 2018; Pérez-Amaral et al., 2021). For instance, the EU, in its document “Europe’s Digital Decade: Digital Targets for 2030,” assumes that access to education to acquire basic digital skills should be a right for all EU citizens and that lifelong learning should become a reality (2030 Digital Compass: The European Way for the Digital Decade, 2021). These postulates are developed in the Digital Education Action Plan 2021–2027: Resetting Education and Training for the Digital Age (2020). It states that high-quality and inclusive digital education should become a strategic objective, and everyone should be given access to it. The plan, however, does not refer explicitly to older adults. The AGE Platform recognizes this problem—a European network of NGOs bringing together people aged 50+ and acting on their behalf, which postulates limiting the exclusion of older adults from digital education (AGE Platform Europe, 2021).

The main reasons for public policy interest in the digital divide and the need for digital literacy are to achieve economic growth or innovation and to reduce levels of inequality or promote social inclusion (Dijk, 2008). The digital divide issue is a fairly new category in public policy that has only been defined. However, it is also a multidimensional issue, and due to the ongoing development of technology, the problem will probably never be fully resolved (Alexopoulou, 2020). Thus, acquiring and developing digital skills will remain a challenge for each successive older generation in the future that will need to be addressed through lifelong learning. Given the

changing nature of the digital divide, an active role of the state in providing digital assistance to older people is advocated (Alexopoulou & Åström, 2022).

THE DIGITAL DIVIDE OF OLDER ADULTS IN POLAND

Digital exclusion of Polish seniors is the subject of numerous scientific analyses, which suggest the scale of the problem is rather large (Garwol, 2019; Kwiatkowska, 2022; Susło et al., 2019), and it is different in urban and rural areas (Podgórnjak-Krzykacz et al., 2020). In each age group of older people, computer and Internet use is lower in rural than in urban areas in Poland. Moreover, digital exclusion has increased in older age groups. This means there is a clear need to focus the policy on reducing the digital exclusion of seniors living in rural areas.

The data in Table 1.2 confirm that Poles aged 55–74 use the Internet less than the average person of the same age in the EU. The differences between Polish and European seniors in this respect are even deeper in the 65–74 age group and among less-educated people. Also, the indicators concerning the number of older people who have never used the Internet are significantly less favorable for older Poles in each group. As many as 69% of less-educated Poles aged 55–74 have never used the Internet.

Older people in Poland, similarly to the rest of the EU, use the Internet passively, most often to search for information on products and services or health (Table 1.3). On a similar or slightly smaller scale, they use it for

TABLE 1.2 The Proportion of Individuals Aged 55 to 74 in Poland and in the EU 27 Who Use and Never Used the Internet in 2021 (%)

Age Group	Country Region	Internet Use in the Last 12 months (%)	
		Yes	Never
55 to 64 years old	EU 27	86	11
	Poland	79	18
65 to 74 years old	EU 27	67	29
	Poland	52	42
55 to 74 with low formal education	EU 27	59	36
	Poland	27	69
55 to 74 with medium formal education	EU 27	80	15
	Poland	63	31
55 to 74 with high formal education	EU 27	96	3
	Poland	96	2

Note: Eurostat data.

TABLE 1.3 Internet Activities of Individuals Aged 55 to 74 in Poland and EU27 in 2021 (%)

Internet Activity	Country Region	% of Individuals Aged 55–74
Telephoning or video calls	UE 27	45
	Poland	30
Sending/receiving emails	UE 27	58
	Poland	38
Participating in social networks (creating user profiles, posting messages, contributing to Facebook, Twitter, etc.)	UE 27	31
	Poland	25
Reading online news sites/newspapers/news magazines	UE 27	51
	Poland	51
Seeking health information	UE 27	45
	Poland	37
Finding information about goods and services	UE 27	50
	Poland	42
Internet banking	UE 27	44
	Poland	29
Doing an online course (of any subject)	UE 27	7
	Poland	4
Online learning material	UE 27	8
	Poland	4

Note: Eurostat data.

communication purposes: sending emails and chatting over the Internet. Education is a niche activity performed by older people on the Internet—only 4% of Poles participate in online courses or use online educational materials. In almost all analyzed activities, Poles perform worse than the average EU citizen. The only similar result was reported for Reading online news sites/newspapers/news magazines.

Internet use is determined by the level of digital competence, below the EU average for Poles. According to Eurostat (2019), 16% of people aged 55–74 in Poland have basic or above basic overall digital skills. This indicator is twice as high in the EU (33%). Low digital competence is exhibited by 34% of the examined population in Poland and the EU.

Given the above-quoted data, reducing the digital exclusion of Polish seniors through digital education and its dissemination should be a relevant area of interest for public policy. In the next section of the chapter, Poland's national policy in this field will be analyzed.

NATIONAL STRATEGIES AND PUBLIC POLICY PROGRAMS ADDRESSING DIGITAL EXCLUSION AND DIGITAL EDUCATION FOR OLDER ADULTS IN POLAND

The current national development strategies developed by the Polish government do not explicitly refer to digital education as a means of reducing digital exclusion among the oldest Poles. The issue of the grey digital divide should be discussed in them. Instead, the strategies emphasize the need to ensure access to lifelong digital learning, focusing on adult education. The Strategy for Responsible Development for the period up to 2020 (including the perspective up to 2030), the core document setting the directions of the country's development, draws attention to the challenges of an aging society and the growing presence of technology in everyday life.

Also, the National Strategy of Regional Development 2030, as the basic strategic document of the regional policy of the state, indicates, among other things, digitization and demographic changes as global megatrends that will shape societies and economies in the coming years and also influence changes in the regions and thus the directions of public intervention. Both documents highlight the need to increase the proportion of people with basic digital skills and propose actions for digital inclusion of people digitally excluded or at risk of such exclusion. The Strategy of Regional Development particularly emphasizes the importance of digital education in areas at risk of permanent marginalization. Such targeting of interventions is positive in the context of the data presented above, which shows the significant scale of digital exclusion in rural areas.

The Program of Integrated Computerization of the State, an executive document of the Strategy of Responsible Development, also emphasizes the role of digital competences for the social and economic development of the country and the need to develop them through digital education. However, the elderly were not indicated as a group requiring special support. None of those, as mentioned earlier, strategic documents propose activities addressed directly to seniors.

Measures for developing digital education for the elderly, omitted in the general national development strategies, were designed within one of the sectoral policies—the Senior Citizen Policy. Established in 2012 by the Minister of Labor and Social Policy, the Senior Citizen Policy Department is the principal unit of government administration planning and conducting Senior Citizen Policy in Poland. It is responsible for developing guidelines for activities addressed to seniors, creating conditions for improving the support system for seniors, and implementing tasks in active aging. The Department is also responsible for monitoring the support system for seniors.

The establishment of the Department marked a real shift of focus of social policy in Poland toward the challenge of demographic transition as senior issues were recognized as a separate area of government activity requiring comprehensive research. The system of support for Polish seniors that is