Asia-Pacific
Economic Cooperation

PROMOTING GENDER EQUALITY AND INCLUSION IN DIGITAL HEALTH TECHNOLOGY FOR CAREGIVERS

Chinese Taipei

September 10 - 11, 2024

Great Skyview Hotel

Table of Content

Agenda

Agenda

September 10

Venue: Wanda Room

Time (GMT+8)	Agenda
09:30-10:00	**Registration**
10:00-10:15	**Opening Remarks** ◆ Ming-Hsin Lin, Minister without Portfolio *(Chinese Taipei)* ◆ Chantelle Stratford, Chair, APEC Policy Partnership on Women and the Economy ◆ Alberto Tejada, Chair, APEC Health Working Group ◆ Rahima Kandahari, Chair, APEC Policy Partnership for Science, Technology and Innovation (pre-recorded)
10:15-10:20	**Group Photo**
10:20-10:40	**Keynote:** **Women in Care Work and Technology Development** Caroline Figueroa, Assistant Professor, Delft University of Technology *(The Netherlands)*
10:40-11:00	**Project Introduction** Nai-Ying Ko, Distinguished Professor, Department of Nursing, National Cheng Kung University *(Chinese Taipei)*
11:00-11:15	**Break**
11:15-12:20	**Session 1:** **Using Digital Health Technology in Caregiving: Opportunities and Challenges** **Moderator:** Nai-Ying Ko, Distinguished Professor, Department of Nursing, National Cheng Kung University *(Chinese Taipei)* **Panelists:** ◆ Portia Fernandez-Marcelo, Professor, College of Medicine, University of the Philippines Manila *(The Philippines)* ◆ Felipe Cortes Leddy, National Director of Nursing, Ministry of Health *(Chile)*

Time (GMT+8)	Agenda
	◆ Tsu-Ann Kuo, Vice President, Taiwan Association of Family Caregivers *(Chinese Taipei)*
12:20-13:50	**Lunch**
13:50-15:10	**Session 2:** **Developing Inclusive Technology for Care Work** **Moderator:** Caroline Figueroa, Assistant Professor in Digital Health, Delft University of Technology *(The Netherlands)* **Panelists:** ◆ Ya-Ching Hsu, Deputy Secretary-General, Red Heart Association of the Republic of China *(Chinese Taipei)* ◆ Susan Nio, CEO, LoveCare *(Indonesia)* ◆ Chenny Xia, CEO, Gotcare *(Canada)* ◆ Thi Trang Nguyen, Associate Professor, Biomedical and Genetics Department, Hanoi Medical University *(Viet Nam)*
15:10-15:35	**Tea Break**
15:35-16:55	**Session 3:** **Bringing Government Policy in** **Moderator:** Ching-Yi Lin, Deputy Minister, Ministry of Health and Welfare *(Chinese Taipei)* **Panelists:** ◆ Hsi-Wen Wu, Deputy Director-General, Department of Long-Term Care, Ministry of Health and Welfare *(Chinese Taipei)* ◆ Fatimah Zuraidah Salleh, Senior Principal Assistant Secretary, Ministry of Women, Family and Community Development *(Malaysia)* ◆ Laura Flores Pinto, Head of Office of International Affairs Monitoring, National Institute for Women *(Mexico)* ◆ Almendra Orellana Jorquera, Advisor to the Minister's Cabinet, Ministry of Women and Gender Equality *(Chile)*
16:55-17:00	**Post-Meeting Survey**

September 11 (Invitation only)

Venue: Wanda Room

Time (GMT+8)	Agenda
09:30-10:00	**Registration**
10:00-10:50	**Opportunities for Cross-Fora Collaboration** **Moderator:** Chantelle Stratford, Chair, Policy Partnership on Women and the Economy **Co-Moderator:** Nai-Ying Ko, Distinguished Professor, Department of Nursing, National Cheng Kung University *(Chinese Taipei)* **Panelists:** ◆ Alberto Tejada, Chair, APEC Health Working Group ◆ Zaahirah Mohammad, Public Health Medicine Specialist, Ministry of Health *(Malaysia)* (HWG) ◆ Chonnikan Ariyakul, Researcher, National Science and Technology Development Agency *(Thailand)* (PPSTI) ◆ Hao-Ming Chen, Section Chief, Workforce Development Agency, Ministry of Labor *(Chinese Taipei)* (HRDWG)
10:50-11:40	**Discussion: Next Steps for Inclusive Future** **Moderator:** Nai-Ying Ko, Distinguished Professor, Department of Nursing, National Cheng Kung University *(Chinese Taipei)* **Co-Moderator:** Chantelle Stratford, Chair, Policy Partnership on Women and the Economy Breakout room discussion: 1.How can different APEC working groups work together to enhance gender equality and inclusion in digital health technology for care work? 2.What are the possible future actions that can be taken by different stakeholders in your own economy?
11:40-12:00	**Meet at the Lobby**
12:00-12:30	**Travel for lunch**
12:30-13:30	**Lunch**
13:30-17:00	**Site Visits**

Download meeting materials

Post-meeting Survey

議程

9月10日

地點：萬大廳

時間	議程
09:30-10:00	**報到**
10:00-10:15	**開幕致詞** ◆ 林明昕 | 行政院政務委員 ◆ Chantelle Stratford | APEC 婦女與經濟政策夥伴主席 ◆ Alberto Tejada | APEC 衛生工作小組主席 ◆ Rahima Kandahari | APEC 科技、技術及創新政策夥伴主席（預錄影片）
10:15-10:20	**大合照**
10:20-10:40	**專題演講：照顧工作與科技研發中的女性** 演講人： Caroline Figueroa | 荷蘭台夫特理工大學數位健康助理教授
10:40-11:00	**計畫介紹** 報告人：柯乃熒 | 國立成功大學護理系特聘教授
11:00-11:15	**休息**
11:15-12:20	**場次一：數位健康科技運用於照顧工作：機會與挑戰** 主持人：柯乃熒 | 國立成功大學護理系特聘教授 與談人： ◆ Portia Fernandez-Marcelo | 菲律賓大學馬尼拉分校醫學院教授 ◆ Felipe Cortes Leddy | 智利衛生部全國護理處處長 ◆ 郭慈安 | 家庭照顧者關懷總會副理事長
12:20-13:50	**午餐**

時間	議程
13:50-15:10	**場次二：開發更具包容性的照顧科技** 主持人：Caroline Figueroa	荷蘭台夫特理工大學數位健康助理教授 與談人： ◆ 許雅青	中華民國紅心字會副秘書長 ◆ Susan Nio	印尼 LoveCare 執行長 ◆ Chenny Xia	加拿大 Gotcare 執行長 ◆ Thi Trang Nguyen	越南河內醫學大學生物醫學和遺傳學系副教授
15:10-15:35	**茶敘**
15:35-16:55	**場次三：政府政策再思考** 主持人：林靜儀	衛生福利部次長 與談人： ◆ 吳希文	衛生福利部長期照顧司副司長 ◆ Fatimah Zuraidah Salleh	馬來西亞婦女、家庭與社區發展部首席助理秘書長 ◆ Laura Flores Pinto	墨西哥國家婦女研究院國際事務監測處處長 ◆ Almendra Orellana Jorquera	智利婦女與性別平等部內閣顧問
16:55-17:00	**會後問卷**

9月11日（閉門會議，邀請制）

地點：萬大廳

時間	議程
09:30-10:00	**報到**
10:00-10:50	**跨論壇合作機會** 主持人：Chantelle Stratford	APEC 婦女與經濟政策夥伴主席 共同主持人： 柯乃熒|國立成功大學護理系特聘教授 與談人： ◆ Alberto Tejada	APEC 衛生工作小組主席 ◆ Zaahirah Mohammad|馬來西亞衛生部公共衛生醫學專家（衛生工作小組） ◆ Chonnikan Ariyakul	泰國國家科學與技術發展署研究員（科技、技術及創新政策夥伴） ◆ 陳浩銘|勞動部勞動力發展署科長（人力資源發展工作小組）
10:50-11:40	**綜合討論：採取行動邁向包容性未來** 主持人：柯乃熒|國立成功大學護理系特聘教授 共同主持人： Chantelle Stratford|APEC 婦女與經濟政策夥伴主席 與會者將進行分組討論： 1.不同 APEC 工作小組可以如何合作以促進照顧相關數位健康科技的性別平等與包容性？ 2.在各自經濟體中，不同利害關係人未來可以採取哪些行動？
11:40-12:00	**飯店大廳集合**
12:00-12:30	**前往午餐地點**
12:30-13:30	**午餐**
13:30-17:00	**參訪**

下載會議資料

會後問卷

Moderators and Speakers

Nai-Ying Ko

Distinguished Professor
National Cheng Kung University
Chinese Taipei

Nai-Ying Ko, PhD, RN is the distinguished professor of Department of Nursing and Department of Public Health, College of Medicine, National Cheng Kung University.

Dr. Nai-Ying Ko is recognized as a fellow of American Academy of Nursing and senior fellow of Higher Education Academy. Dr. Ko is a well-known advocate for social justice and health equity and human right advocacy for minority population in Asia. Dr. Ko is the pioneer who started the HIV counseling and testing programs domestically in early 1990s, initiated HIV case management models in 2005, and published the oral pre-exposure prophylaxis (PrEP) clinical guideline in 2016.

Portia Fernandez-Marcelo

Professor
University of the Philippines Manila
The Philippines

Dr. Fernandez-Marcelo is a Professor of the state's University of the Philippines Manila where she teaches Community Medicine, Social Medicine including Health Policy, Gender and Human Rights. She graduated as a physician from the same University in 1993, and earned a Master of Public Health from the Johns Hopkins University in 2001.

She is the Immediate Past Director, National Telehealth Center from 2011-2017. Her work centered on Public Health Informatics, and developing communities of practice around strengthening the country's health information system and civil registration and vital statistics system. Among the few female digital health innovators in the Philippines, Dr. Fernandez-Marcelo led several R&D projects under the categories of telehealth and telemedicine, digital health and health information management education, electronic health records, mobile health and telemedicine devices intended for rural, remote and disadvantaged areas. Funded by the Philippine Government and the UN country offices of the WHO and Unicef; these have redound to advocacy for related policy - Congressional Bills, Executive Orders. Her recent research recommended options for Modernizing Government Regulations for the Health Sector: Telehealth Regulation, and a Telehealth Roadmap for the Philippines for a government think-tank and the Ministry of Health, respectively.

Dr. Fernandez-Marcelo has been a public health consultant for over 25 years for several Philippine government agencies (MOH, PSA, DAP) and local government units (Pasay City, Capiz) , UN agencies and international development agencies (WHO-WPRO, WHO-PHL, Unicef, ADB, GIZ-Germany, IDRC Canada, USAID); and local civil society organizations (Safe Kids Worldwide PHL, HealthDev Institute).

Felipe Cortes Leddy

National Director of Nursing
Ministry of Health, Chile
Chile

Male nurse of the Ministry of Health in Chile with 22 years of experience in the public health system in Chile, including ten years working with remote health assistance to users of the system, using digital channels of care for health education.

He is the National Director of Nursing, being in charge of the development of the discipline in all policies. He is also advisor to the Minister of Health in health humanization.
He has training in various fields including organizational wellness, quality management and global leadership at the University for Peace, Yale and the University of Chile, among others.

Recognized globally as one of the nurses featured in the book "Male nurses with a capital letter" (Spain). He is a national and international reference in nursing, standing out as an influential voice in the discipline.

TsuAnn Kuo

Former President/ Vice President
Taiwan Association of
Family Caregivers
Chinese Taipei

Trained as a gerontologist and a clinical social worker, Prof. Tsuann Kuo has been involved in academia and advocacy work in long-term care especially for the aging population, people with dementia and family caregivers for more than 30 years. Prof. Kuo received a doctoral degree in Social Welfare from the University of California, Los Angeles (UCLA) and dual maters' degrees in Health Administration and Gerontology from the University of Southern California (USC). She is bi-cultural and trans-continent due to her diverse work experiences before returning back home. Prof. Kuo worked as a Program Evaluator implementing working caregivers' program at the Center for Healthy Aging and the Volunteer Coordinator for the City of Beverly Hills as well as volunteered to serve for various immigrant agencies in the United States. She won several honors or awards for her voluntary work to bridge cultural differences and to advocate for those in need, including those from the Alzheimer's Association, AARP, KCET, Taiwanese American Professionals, National Alliance for Caregivers and International Alliance of Carer Organizations.

Currently, Prof. Kuo serves as the Associate Professor at the School of Medicine, Chung Shan Medical University (CSMU) and the Deputy Superintendent of the CSMU Hospital, responsible for the Integrated Dementia Care Center in Taichung City. She is the President of Taichung City Red Cross and Hsiang Shang Culture and Education Foundation. She also serves as the Vice President and former President of Taiwan Association of Family Caregivers where she represented the economy to the International Alliance of Carer Organizations, a registered Non-Government Organizations in the United Nation.

Caroline Figueroa

Assistant Professor
Delft University of Technology
The Netherlands

I am a medical doctor by background and currently an assistant professor in digital health at Delft University of Technology in the Netherlands. I have a PhD in the neuroscience of depression from the University of Amsterdam and the University of Oxford. In addition, I have several years of experience working in clinical psychiatry as a licensed medical doctor.

My research centers on developing, testing, and implementing personalized digital health tools aimed at helping individuals improve their wellbeing and lead healthier lives. I place a strong emphasis on tailoring these tools to meet the needs of underserved populations, such as those from ethnic minoritized backgrounds and lower socioeconomic positions, and to be gender inclusive. My research mission is to develop and deploy technology to reduce (mental) health disparities and contribute to a transformation towards inclusion and (gender) equity within the field of Digital Health sciences.

Ya-Ching Hsu

Deputy Secretary-General
Red Heart Association
of the Republic of China
Chinese Taipei

I am a social worker currently working as the Deputy Secretary-General of the Red Heart Association of the Republic of China. I have been working on elderly welfare and long-term care services for more than 25 years. Back to then, there were only a limited number of social workers engaged in elderly welfare services and long-term care services.

In 2018, the Ministry of Health and Welfare promoted the long-term care 2.0, and I started to lead the program of Xinglong Elderly Care Center in Taipei City. I introduced the intelligent technologies such as management system, physiological measurement system, and positioning system into the elderly care center. In 2022, we further introduced technological aids such as facial recognition and multimedia interaction system in the Daren and Xinglong Senior Care Centers in Taipei city.

Long-term care services are a highly labor-demanded industry where most staffs are middle-aged and elderly women. To introduce modern technologies to those middle-aged and elderly female practitioners in the long-term care field, it requires leaders' tremendous efforts in planning and designing adoption and implementation strategies. Those innovative technologies used in elderly day care center will facilitate the provision of elderly care with respect and quality.

Susan Nio

CEO
LoveCare
Indonesia

Susan Nio is the visionary founder, CEO, and CTO of LoveCare, Indonesia's pioneering app designed to match families with professional caregivers. Under her leadership, LoveCare has revolutionized the delivery of high-quality home care services through innovative technology. The platform not only facilitates matches but also curates and educates caregivers, empowering them to find positions that best suit their skills and upskill them. Having successfully facilitated over 63,000 home care visits across Indonesia, LoveCare is now broadening its reach by sending care workers abroad. The company's impact and innovation were recognized when it was selected as one of the winners of the UN Women Care Accelerator Program in 2021. Susan holds an MSc in Digital Business Enterprise Management from the University of Liverpool. Driven by her passions for technology and women's empowerment, Susan is dedicated to transforming and elevating Indonesia's care industry through LoveCare, exploring and enhancing previously untapped potentials.

Chen Xia

CEO
Gotcare
Canada

I am a serial entrepreneur and advocate for health equity and accessibility. As the CEO of Gotcare, I ensure acute and chronic health needs can be handled right at home, regardless of where you live - including service to over 100 remote communities across Canada. I have been recognized for my leadership by organizations like The Globe and Mail and Digital Health Canada, and was a member of Ontario's Task Force on Women and the Economy. I also serve as a board member of Coralus (formerly SheEO).

Thi Trang Nguyen

Associate Professor
Hanoi Medical University
Viet Nam

Dr. Nguyen Thi Trang is an Associate Professor and Senior Lecturer at Hanoi Medical University and the Deputy General Secretary of the Vietnam Medical Genetics Association. With extensive experience in the field of medical genetics, Dr. Trang has been at the forefront of research and application of modern technologies in healthcare. She specializes in prenatal screening and diagnosis, genetic counseling, and the application of artificial intelligence in various medical specialties, including obstetrics, oncology, and pediatrics. Dr. Trang has played a pivotal role in developing mobile applications for prenatal screening, cancer, ADHD diagnosis, stroke detection, and dengue fever management. Her work not only enhances the professional capacity of healthcare workers but also streamlines healthcare processes, providing significant benefits to patients and healthcare professionals alike. Dr. Trang's contributions to medical genetics have been recognized with numerous awards and honors, and she continues to drive innovation in the field with her research and clinical practice.

Dr. Trang has authored over 100 peer-reviewed articles and has led multiple national-level projects focusing on the application of advanced technologies and AI in healthcare. The mobile apps she has developed have significantly contributed to simplifying medical procedures, optimizing time management, and improving the efficiency of patient care. These innovations not only advance her professional expertise but also allow healthcare providers to manage their time better, providing more opportunities for self-care and family time. Her ongoing work in integrating AI into targeted cancer therapies exemplifies her commitment to leveraging technology for improved healthcare outcomes.

Ching-Yi Lin

Deputy Minister
Ministry of Health and Welfare
Chinese Taipei

Dr. Ching-Yi Lin is the Deputy Minister of the Ministry of Health and Welfare and former legislator. In addition, Dr. Lin is the Director of Taiwan Health Corps (NGO), as well as the Director of Taiwan's Women's Link. Dr. Lin obtained her Master's degree in Genetic Counseling at National Taiwan University, as well as a PhD of Medicine and another Master's degree at the Chung-Shan Medical University.

She is a consultant at various medical centers, and a physician and lecturer at her alma mater. Dr. Lin's research interests cover obstetrics and gynecology, genetic counselling, and feminism. Plus, she plays an essential role in the advocacy of women and girls' rights, LGBTI rights, marriage equality and health care reform.

Hsi-Wen Wu

Deputy Director-General
Ministry of Health and Welfare
Chinese Taipei

I hold a Ph.D. in Health Policy and Management from National Taiwan University. With a background in long-term care, health policy, and occupational therapy, I serve as the Deputy Director-General of the Department of Long-Term Care at the Ministry of Health and Welfare. With over five years of experience in Senior Technical Specialist positions at the Ministry, I have significantly contributed to the enhancement of health policies and long-term care services. Additionally, I have academic experience as an adjunct lecturer in the Department of Occupational Therapy at I-Shou University. My diverse expertise and commitment to advancing health policy and long-term care continue to drive positive changes in the healthcare system.

Fatimah Zuraidah Salleh

Senior Principal Assistant Secretary
Ministry of Women,
Family and Community
Development
Malaysia

Fatimah Zuraidah joined the civil service in 1995. She is currently the head of Corporate Social and Responsibility Unit, and has been part of the social development, social-protection and public private partnership.

With nearly three decades of experience working with the Ministry of Home Affairs, the Ministry of Women, Family, and Community Development, and the Department of Social Welfare, she has the competence in working with vulnerable groups including children, the elderly and person with disabilities.

Laura Flores

Head of Office of International Affairs Monitoring
National Institute for Women of Mexico
Mexico

I am Diana Laura Flores Pinto, currently, I serve as the Head of the International Affairs Monitoring Department at the National Institute for Women in Mexico (INMUJERES). I have a master's degree in Gender Studies from El Colegio de México, specializing in Gender and Economics, and an International Relations graduate from UNAM.

I have six years of experience working on issues related to achieving substantive gender equality, as well as combating violence against women in regions with gender alerts. I have also collaborated with vulnerable populations as a workshop facilitator and conducted research on gender, racialization, labor, and policy evaluation.

Almendra Orellana

Advisor to the Minister's Cabinet
Ministry of Women and
Gender Equality
Chile

Almendra Orellana is an industrial engineer and has a master in Managment and Public Policy of Universidad de Chile. Throughout her career she has specialized in public policies, especially public health and gender equality. She has worked in charge of information management for a public health facility in Santiago of Chile. She has also worked in the vice-chancellorship of the Universidad de Chile.

Almendra worked in the office of the undersecretary of school education and currently works as an advisor in charge of care topics to the Minister's Cabinet in the Ministry of Women and Gender Equality in Chile, deepen her knowledge in care matters focusing on caregivers and participating in the design of research projects which are being set up currently, also has influenced on the National System Care bill.

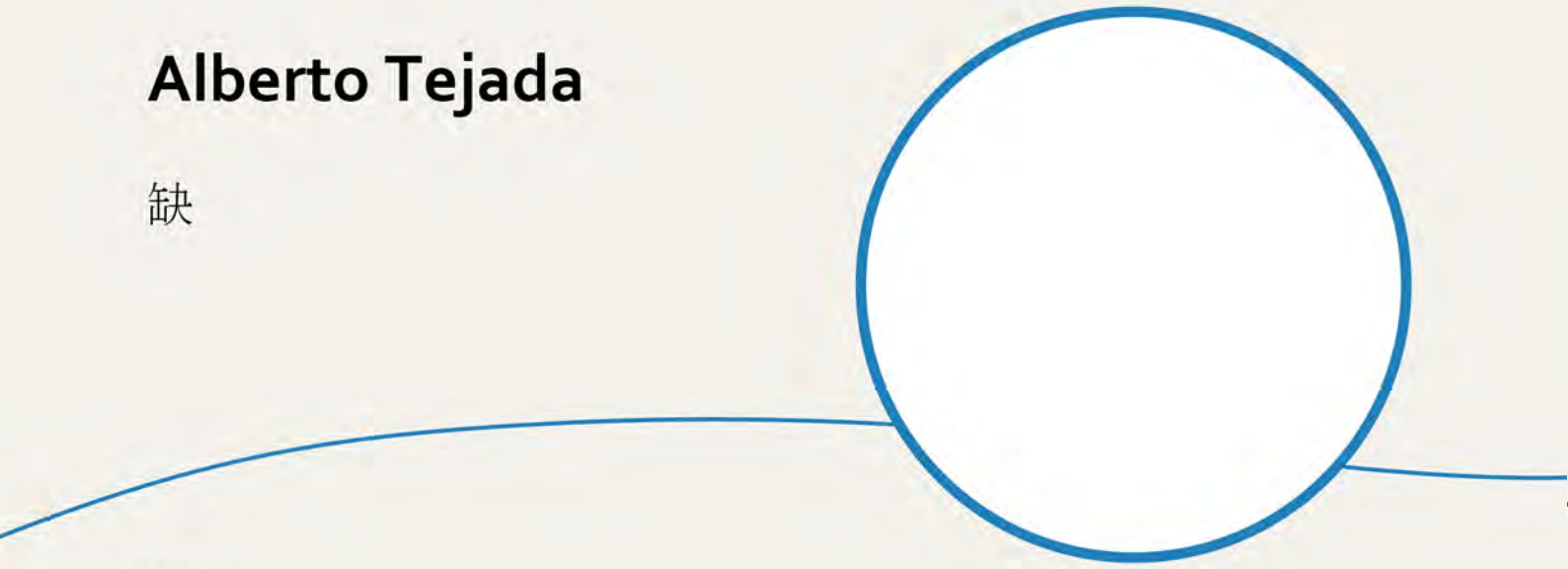
Chantelle Stratford

Principal Gender Specialist
Department of the Prime Minister and Cabinet
Australia

Chantelle is the Chair of the APEC Global Policy Partnership on Women and the Economy and is Australia's Principal Gender Specialist in G20. Prior to this, she worked as the Head of Australia's Office for Women and her leadership has been pivotal in driving significant reforms in pay transparency, gender budgeting, economic equality and gender based violence. Awarded a Public Service Medal in 2024 for her contribution to gender equality, Chantelle plays a key role in shaping global economic dialogues through a feminist lens. She holds advanced degrees in gender equality and public policy.

Alberto Tejada

缺



缺

ZAAHIRAH MOHAMMAD

Public Health Medicine Specialist
Malaysia Ministry of Health

I am Zaahirah Mohammad, 40 years old female doctor from Malaysia. I am married with 3 children. I obtained my medical degree from University College Dublin in 2008. My experience in Malaysian healthcare system includes working in a tertiary hospital, a government health clinic and 2 health district offices. Currently, I am working at Malaysia Ministry of Health in Family Health Development Division as a Public Health Medicine Specialist. My special interest is Family Health particularly Child Health and Parenting. My vision and mission is to contribute for the improvement of population health, particularly the children and teenagers and to support conducive environment for them to grow up healthily.

CHONNIKAN ARIYAKUL

Researcher
National Science and Technology Development Agency (NSTDA)
THAILAND

Chonnikan ARIYAKUL received her Ph.D. in Rehabilitation Science from University of Pittsburgh, USA. She currently works at Assistive Technology and Medical Devices Research Team, Digital Healthcare Platform Innovation Group, National Science and Technology Development Agency (NSTDA), where she conducts several research works on health digital platform such as Tele-rehabilitation and Digital Emergency Medical Service platform. She is a physical therapist by training and experiences working with Neurological patient such as stroke, spinal cord injury and brain injury for decade. Chonnikan is a member of Physical Therapy Council of Thailand, where she volunteers as an educator in the community.

Hao-Ming Chen

Section Chief
Workforce Development Agency,
Ministry of Labor
Chinese Taipei

Hao-Ming Chen currently serves as the Section Chief at the Workforce Development Agency (WDA), Ministry of Labor. With a diverse background encompassing engineering, management, and labor affairs, he brings a multifaceted perspective to facilitating the transition of economic actors from the informal to formal economy. His academic background includes a Master's degree in Engineering Management from Queensland University of Technology, providing him with a robust understanding of both engineering principles and management strategies.

Prior to his current role, he held various positions of increasing responsibility. He embarked on his career journey at the Sewerage Systems Office, where he focused on the management of wastewater treatment plants. Subsequently, he transitioned to a new role as a Technical Specialist at WDA, concentrating on promoting the employment of mid-aged and elderly individuals.

As the Section Chief at WDA, he channels his efforts towards fostering international cooperation related to workforce development. His wealth of experience and unwavering dedication render him a valuable asset in driving collaboration and positive global change. Additionally, Hao-Ming Chen serves as a proactive delegate representing Chinese Taipei in the APEC HRDWG CBN. He has played a pivotal role as a project overseer for numerous APEC projects, focusing on upskilling caregivers, advancing women's empowerment, and cultivating green talents.

Hao-Ming is deeply committed to sharing best practices from WDA, particularly in the realm of assisting first-time job seekers in securing stable employment. His dedication to this cause underscores his passion for fostering inclusive economic growth and workforce development.

APEC Guests

APEC Guests

Hayato Chishaki

Director
One Smile Foundation /
One Smile Tech
Japan

I have experience as both an intrapreneur and an entrepreneur. I am able to plan and promote service development using artificial intelligence and web applications, and it is particularly good at concept creation.

Hayaki Tsuji

Representative Director
One Smile Foundation /
One Smile Tech
Japan

Founder of One Smile Foundation, Musician While composing and arranging music as a musician, he conceived the project "Smiral" to turn smiles into donations in 2019 and established One Smile Foundation in 2020. He has received numerous awards in Japan and abroad for his activities to improve the happiness of all mankind and realize the SDGs, a society where no one is left behind. In 2023, he exhibited at the G7 Hiroshima Summit with the recommendation of Hiroshima Prefecture, and in the same year, he won 7th place in the "Digi Den Koshien" digital competition organized by the Cabinet Secretariat. Smiral's use cases have been developed around nursing care, childcare, sports, and entertainment, and have attracted attention as an initiative to update capitalism.

Sharon Gore

Programmer/ Analyst – Information Communication Technology
Department for Community Development & Religion
Papua New Guinea

Hello! My name is Sharon Gore, and I am thrilled to have the opportunity to introduce myself to you. I am versatile individual with a passion for learning and a drive to achieve excellence in everything I do.

I am currently employed as a programmer/analyst - Information Communication Technology with the Department for Community Development and Religion. I have recently (June 2024) completed my Masters in Information Technology and Master of Business Administration (MInfTech-MBA) at the James Cook University in Australia and looking forward to contributing to my country's development in the social sector with the aid of tech-driven initiatives. I am always eager to take on new challenges and expand my knowledge to grow both personally and professionally.

Overall, I am a driven and enthusiastic individual who is eager to make a difference in the world using technology. Thank you for taking the time to get to know me!

Honey Castro

Information Officer V
Philippine Commission on Women
The Philippines

Honey M. Castro is the Chief of the Corporate Affairs and Information Resource Management Division of the Philippine Commission on Women, a leadership position in the agency which is responsible for driving the successful implementation of the Division's programs, projects, and activities covering a diverse portfolio, which include: planning, development, and management of information and communications technology network infrastructure and information systems; social marketing; and freedom of information program implementation. Ms. Castro also has strong background on policy development and advocacy, and gender and development planning and budgeting, having previously worked as technical officer of the Commission's Policy Development and Advocacy Division.

Mini Panggi

Deputy Director
Social Institute of Malaysia
Malaysia

I obtained my bachelor (1999) and master's degree (2005) in social sciences majoring in Gender Studies from University of Malaya, Malaysia. In 2013, I finished my Executive Master of Business Administration majoring in International Business from Open University, Malaysia. I have been working with the Government of Malaysia since 2005 until now. My first posting was at the Legal Affairs Department under the Prime Minister's Department of Malaysia. Later, in 2014, I was transferred to the Ministry of Women, Family and Community Development, in charge of administrative services. I am currently a Deputy Director of Social Institute of Malaysia, the post I hold since 2022. My primary responsibilities include overseeing the overall aspects of the institute operations. Social Institute of Malaysia is one of the agencies under the Ministry of Women, Family and Community Development. It is a public training centre focusing on social work and development. During my free time, I like reading and listening to music.

Renugah Rengasamy

Head of Information
Technology Unit
Social Institute of Malaysia
Malaysia

Renugah currently serves as Head of the Information Technology Unit at the Social Institute of Malaysia (ISM), a training institute under The Ministry of Women, Family and Community Development (KPWKM). Previously, she worked for the Ministry of Higher Education from 2015 to 2017 before pursuing a PhD in Information Systems at Universiti Malaya, Malaysia. She also served the Ministry of Housing and Local Government for 8 years. She was part of the Sistem e-Pihak Berkuasa Tempatan (e-PBT) implementation, which provides online services for the public.

She also writes and her work has been published in a few local magazines such as Smart Investor, WartaOriental, Paradigma Sosial, and IMPACT. Recently Renugah has been invited as a speaker for the International Conference on Sustainability Tourism and Hospitality (ICSTH 2024). She is also part of the Editorial Review Board for the Asian Journal of Business Research (AJBR) and Journal of Agribusiness Marketing (JABM) and reviews for local and international conferences. She has been serving as one of the working committees for the International Conference on Responsible Tourism and Hospitality (ICRTH) since 2022.

In 2023, Renugah was awarded Technologist (Ts.) by the Malaysia Board of Technologists (MBOT) and was certified as a Digital Government Competency and Capability Readiness Certified Trainer (Public Sector) under INTAN demonstrating her involvement in empowering digital programs in public sectors.

Vu Thi Huyen

Lecture
Hanoi Medical University
Viet Nam

Vu Thi Huyen, Ph.D. in Medical Genetics, is currently a lecturer in the Department of Biology and Genetics at Hanoi Medical University. She obtained her Ph.D. in 2018 with excellent achievements and has participated in numerous research projects at various levels. Her research interests include molecular biology, genetic counseling, cancer research, obstetrics, male infertility, assisted reproductive technology, prenatal screening and diagnosis, pre-implantation genetic testing, and lung diseases such as lung abscesses and silicosis. With a passion for research and teaching, she continuously strives to contribute to the advancement of medical genetics and to impart knowledge and experience to students and colleagues. Her work encompasses not only teaching but also guiding and engaging in research projects aimed at enhancing healthcare quality and patient treatment. She looks forward to the opportunity to participate in and contribute to international conferences to learn and share the latest knowledge in relevant fields.

Site Visits

中　華　民　國
家庭照顧者關懷總會

Taiwan Association of Family Caregivers

The Taiwan Association of Family Caregivers (TAFC), established in 1996, is the first domestic non-profit organization dedicated to issues concerning family caregivers. Founded by a group of scholars, social activists, and public representatives devoted to women's rights and the welfare of family caregivers, TAFC has been committed to enhancing societal recognition and support for family caregivers.

TAFC's mission is to promote the rights of family caregivers and advocate for diverse supportive services from the government. Through social dialogue and policy advocacy, TAFC continuously make hard effort to institutionalize the rights of family caregivers and ensure they receive the necessary resources and support. In addition, TAFC actively engages in international affairs, sharing and learning global best practices to develop innovative services that meet the needs of local family caregivers.

In response to the challenges of the trend toward a "non-family caregiver era," TAFC has advocated for the principles of "do not resign due to caregiving responsibilities", "it is not necessary to care for family member personally", and "do not lose harmony on account of caregiving in family". We strive to create a friendly caregiving environment that alleviates the fear of long-term care. Through these efforts, TAFC envisions a more caring and supportive society where every family caregiver is respected and valued.

Taipei Fuhua Senior Multi-Service Center

The Taipei Fuhua Senior Multi-Service Center serves the elderly, and its services can be divided into three main parts:

1. Small-size multi-function services: including day cares, home services, and night respite care services.
2. Community care station: offering courses, activities, and shared meals.
3. Ten-minute caring circle:
   Based on the traditional home visit services, this program provides a station or daytime care for elderly individuals living within a ten-minute walking distance to the center, helping to reduce the workloads of social workers and volunteers while enabling seniors to successfully "aging in place."

Care Café

The Care Café, established in 2018, is located on the first floor of Taipei Fuhua Senior Multi-Service Center and managed by Taiwan Association of Family Caregivers (TAFC). The café aims to provide a respite space for family caregivers, allowing them to temporarily step away from their demanding caregiving responsibilities and relax.

In Care Café, family caregivers can use "respite coffee vouchers" to redeem for all sorts of drinks and desserts, and participate in regularly organized respite activities to foster interaction and support among one another. In addition, the café features a wall called "long-term care map," providing information about long-term care resources. Volunteers also regularly assist by engaging caregivers in warm conversations to help them understand the available resources.

The Care Café welcomes everyone to get some rest and chat. Through this space, we hope to raise awareness in society about the issues faced by family caregivers and ensure that each caregiver feels cared for and supported.

臺北醫學大學附設醫院
Taipei Medical University Hospital

Taipei Medical University Hospital

Taipei Medical University Hospital (TMUH), affiliated with Taipei Medical University (TMU), was founded in 1976 and upgraded to a pre-medical center by 2024. With nearly 800 beds and over 2,000 staff, TMUH excels in clinical service, medical research, and education.

TMUH emphasizes digital health technology and telemedicine. TMUH utilizes smart devices, video consultations, smart glasses, physiological measurement equipment, and smart watch bracelets for real-time medical care. Telemedicine services extend to long-term care institutions, remote areas, and ocean fishing vessels.

The hospital focuses on comprehensive medical services, including cancer, cardiology, geriatrics, pediatrics, and international healthcare. It also engages in community health outreach and has been involved in Eswatini's medical system since 2009.

Committed to sustainability, TMUH has received awards for its efforts, implemented energy-saving measures, and reduced carbon emissions. TMUH aims to be an internationally renowned medical center, known for high-quality care, education, and research, fostering pride among its staff.

Project Introduction

Promoting Gender Equality and Inclusion in Digital Health Technology for Caregivers
Project Introduction:

Background

The health industry is undergoing digital transformation, with diverse digital health technologies being developed, such as APPs for monitoring health conditions, long-term care assisted digital facilities, telemedicine, etc. As women are primary caregivers—perform 80% of unpaid care work in the Asia-Pacific region and consist of 70% of health workers globally—they are major potential users of digital health technologies. However, many factors may prevent female caregivers from benefiting from the advancement of digital health technologies, such as the digital gender gap and the lack of women's perspective in the product design process.

Therefore, it is crucial to promote gender equality and inclusion in the development of digital health technologies, to increase female caregivers' access and use of these technologies in care work, which is expected to reduce unpaid caregivers' care burden as well as to increase the work efficiency and safety of paid care providers.

Objectives

With a specific focus on the digital health technologies that are applied in care work and used by paid and unpaid caregivers, this project has the following 3 objectives:

1. To understand the needs of caregivers for digital health technologies and how to apply a gender mainstreaming approach in the development of digital health technologies.
2. To identify approaches to promote gender equality and inclusion in digital health technologies for care work.
3. To raise awareness on the importance of applying a gender mainstreaming approach into the digital health technologies for care and related policies as well as the benefits female caregivers can gain from it.

Activities

To achieve these objectives, the following activities will be conducted in 2024:

1. Consultation Interviews:

Two sessions of consultation interviews were held online in April by using the method of focus group to understand (1) the needs and challenges of caregivers in terms of using digital health technologies in care work; (2) what can be done in the research and development process to make digital health technologies more gender inclusive and meet the needs of caregivers; and (3) the government policies required to ensure that caregivers of diverse backgrounds can all easily access and use digital health technologies for care work. Representatives from caregiver organizations, digital health companies, research institutes, and government agencies were invited to share their opinions and experiences.

The interview summary is presented in the full version of the seminar manual.

2. Seminar and Field Trip:

A 1.5-day seminar and a half-day field trip will be organized in September in Taipei, aiming to enhance the capacity of APEC members in understanding how to ensure gender equality and inclusion in technology development and application and how to increase female caregivers' access and use of digital health technologies for care work. The seminar will include keynote speech, project introduction, 3 panels, and a session of cross-fora sharing; the field trip will include site visits to a care organization and a smart care institution. Through expert presentation, panel discussion, and site visits, best practices will be shared, and policy recommendations will be proposed to catalyze the promotion of gender equality and inclusion in digital health technology for caregivers.

3. Final Project Report:

A Project Summary Report will be produced to present the entire project results. The report will consist of, but not limited to, the following sections: project introduction, consultation interview results, the summary of the seminar and field trip, and policy recommendations. This report is expected to be an APEC publication.

APEC「促進照顧相關數位健康科技之性別平等與包容性」計畫

計畫背景

科技的進步帶動健康照護產業的數位轉型，各種不同的數位健康科技應運而生，包括健康監控APP、數位長照輔具與服務、遠距醫療等。而女性在全球各地擔負了大多數的無酬及有酬照顧工作－除了在亞太地區有80%的無酬照顧工作由女性所從事，全球健康產業工作者中也有70%為女性。女性因此成為數位健康科技的潛在主要使用者。

儘管如此，諸如性別數位落差、科技設計過程缺乏女性參與等因素，皆可能阻礙女性照顧者使用數位健康科技，使得她們較難受益於數位健康科技的進步。因此，若能推動數位健康科技發展的性別平等與包容性，進而增加女性照顧者在照顧工作中使用這些科技，將能減輕女性無酬照顧者的照顧負擔，同時增加有酬照顧工作者的工作效率與安全性。

計畫目標

本計畫將聚焦於有酬或無酬照顧者運用於照顧工作中的數位健康科技，
預計達到以下三項目標：

1. 了解照顧提供者在數位健康科技方面的需求，以及如何在數位健康科技的研發中納入性別觀點。
2. 探討如何促進運用於照顧工作的數位健康科技的性別平等與包容性，包括讓這些科技更易於女性取得與使用。
3. 提升相關利害關係人的性別意識，使其了解到在數位健康科技的發展與相關政策中納入性別觀點的重要性，以及所能帶來的益處。

計畫內容

為達上述目標，本計畫將於2024年執行以下工作：

1. 諮詢訪談會議

於2024年4月舉辦2場線上諮詢訪談會議，以焦點團體的形式進行。邀請照顧者組織、數位健康科技公司、研究單位、政府部門等，針對以下三大面向，分享經驗與見解：(1) 照顧提供者在照顧工作中使用數位健康科技的需求和困難；(2) 如何改善科技的研發過程，以讓數位健康科技更具性別包容性且符合使用者需求；以及(3) 政府政策可以如何確保不同背景的照顧者皆可取得並使用數位健康科技。

中文訪談摘要請見大會訪談摘要完整版。

2. 研討會與參訪

將於2024年9月舉辦1.5天的研討會以及半天的參訪，旨在使APEC經濟體了解如何在數位健康科技研發與應用的過程中確保性別平等與包容性，以及如何增進女性照顧者在照顧工作中取得與使用數位健康科技。此研討會將包含計畫介紹、專題演講、3場座談、以及跨論壇分享；參訪活動則會包括照顧組織以及智慧照護相關機構。透過專家演講、座談討論和實體參訪，除了分享最佳案例，亦將提出政策建議，以促進照顧相關數位健康科技的性別平等與包容性。

3. 計畫最終報告

本計畫將出版一份最終報告，包括計畫介紹、諮詢訪談結果、研討會摘要與參訪內容等，並將提出政策建議。

Summary of Consultation Interview

Summary of Consultation Interview

Overview

The consultation interview was held online on April 3 and April 9, 2024 by using the method of focus group, with the following objectives:

1. To understand the needs and challenges of caregivers, both paid and unpaid, in terms of using digital health technologies in care work;
2. To understand what can be done in the research and development process to make digital health technologies more gender inclusive and meet the needs of caregivers;
3. To identify the government policies that are existing and lacking in terms of makingthe digital health development more gender inclusive.

A total of 27 participants participated in the 2 sessions of the consultation interview. The participants were from 13 economies, namely Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, the Philippines, Russia, Singapore, Chinese Taipei, and Thailand, and represented various stakeholders including government officials, digital health technology developers, paid and unpaid care providers, and scholars.

In the consultation interview, the participants were asked to share their experience and opinions regarding questions centering around the use of digital technology by unpaid and paid caregivers in caregiving work, the research and development of technology for care, and recommendations for increasing female caregivers' access and use of digital health technologies.

Summary of the Interview

1. **The use of digital technology in caregiving work**

   According to the participants, digital technology has been applied in various aspects of care, including telemedicine, online appointment and consultation, patient monitoring, nursing online communities for carers, care service mapping, and caregiver scheduling.

Upon becoming caregivers, women may not have the knowledge of how to provide proper care, especially when there are medical conditions involved that require specific measures for caregiving. In addition, caregiving can be a lonely and exhausting experience. Technology has the potential to support caregivers' wellbeing and their caregiving role, including providing reliable information and providing a network of mutual support among caregivers.

However, there are many obstacles hindering caregivers' uptake of technologies for care work. The primary obstacles identified by the interview participants are as follows:

(1) The lack of digital literacy and the low acceptance of new technology, especially for middle- and older-aged family caregivers;
(2) The high complexity of the technology and the lack of technical support for caregivers;
(3) The lack of internet infrastructure and connectivity, especially in rural and remote areas;
(4) The high cost associated with the acquisition and maintenance of the technologies,especially for family caregivers who may have to sacrifice their career to care for their loved ones;
(5) The language and cultural barriers faced by migrant workers.

Accordingly, noticing the intersectionality of caregivers is important. Factors that influence caregivers' use of digital health technology in care work include gender, age, educational level, economic status, living area, and cultural and language differences.

2. The research and development of digital health technology for care

The participants pointed out the challenges and problems in the research and development process of digital health technology, and also provided suggestions regarding how to make the technology more gender inclusive and meet the needs of caregivers. Their opinions can be categorized into the following aspects:

(1) User-centered technology development approach

While women are often the major caregivers and possess abundant caregiving experiences, their voice and experience are seldom heard and taken into account. In fact, the technology development process is often reduced and considered as an engineering problem, rather than a human problem. However, caregiving is a human-centered task. If the technology development lacks the user aspect, the technology uptake would not be successful.

In addition, caregivers are not a homogenous group. They feature different cultural backgrounds, ages, educational levels, living areas, and socioeconomic status. Therefore, it can be challenging to adequately represent the diverse experiences and needs across different user groups.

To ensure the technology development is human-centered and caregivers' voices are heard, the participants proposed the following suggestions:

A. Adopt the co-design approach for technology development. Caregivers of diverse backgrounds should be included in the early design stage, and researchers can collaborate with them in their workplaces to understand the issues they want to cope with.
B. Conduct participatory research to identify the needs and the major concerns of caregivers, while taking into account their different genders, ages, educational levels, living areas, languages, and cultural backgrounds.
C. Conduct inclusive research to examine how gender may influence technology adoption and use
D. Conduct pilot tests and evaluations with caregivers to obtain their direct feedback.

(2) More women as developers

Technology has been predominantly associated with men throughout history, and gender bias and stereotypes have limited women's participation in science and technology. Therefore, it is critical to change the narrative and supportmore women to participate in technology development. Particularly, as the majority of the caregivers are women,
more women developers should be recruited in developing technologies for care work.

From the institutional side, it was suggested that research institutions can support gender inclusive and equitable research by setting gender balance or gender inclusivity as a criterion for funding process. This can not only incentivize research teams to recruit more female researchers but also increase researchers' awareness on gender diversity, inclusion, and equality.

(3) An inclusive AI system

While artificial intelligence (AI) provides the opportunity to develop easy-to-use and user-friendly technology devices and interfaces, it may be based on biased data and therefore produced biased results. Diversity is a key issue in order to make the technology useful for all people. Therefore, when collecting data and design the AI system, special attention should be put to ensure diversity and inclusion.

3. Future actions for different stakeholders

To ensure that caregivers of diverse backgrounds can all easily access and use digital health technologies for care work, it was suggested that policies should be reinforced to address challenges mentioned above, including accessibility, digital education, affordability, and language barriers. Accordingly, the participants proposed a number of recommendations for different stakeholders including government, research institutions, technology companies, and care institutions to take future actions.

(1) Providing digital training and technical support for caregivers

The lack of digital literacy and skills among caregivers, especially unpaid family caregivers, was identified as the primary obstacle to their adoption of technologies in caregiving. Therefore, the government should provide training programs and educational resources to enhance family caregivers' digital literacy and technology skills, with curriculum tailored to home-based learners and flexible scheduling available to them. The government is also suggested to establish peer training and networking opportunities within the community to support caregivers' ongoing learning and application of ICT skills.

In terms of professional caregivers, when a new technology is introduced into a caregiving space (e.g., nursing homes and hospitals), care institutions or technology companies should introduce the technology to all care workers, explaining why they need this technology, how it can help improve their work quality, and what kind of data it will collect. Care workers should also be involved in the evaluation of the collected data and its application. At the same time, digital skill training is also necessary to equip care workers with the abilities to quickly use these technologies efficiently.

Equally important, after the delivery of digital skill training and technology introduction, technology companies should still provide ongoing technical support, to help cope with complex technical problems.

(2) Enhancing Internet infrastructure and developing offline features

Limited internet connectivity and infrastructure, especially in rural and remote areas, can pose challenges for caregivers in accessing digital health technology. Hence, government should collaborate with telecommunications providers to improve the Internet infrastructure, expand the Internet access to the underserved communities, and provide subsidies for internet access in rural and remote areas.

In addition, technology companies or research institutes can explore other innovative solutions, such as offline access features or mobile application that require minimal data usage, to allow caregivers using the devices with limited Internet access.

(3) Increasing affordability

The issue of affordability is related to the high cost of technology, the insufficient government funding or subsidies, and the high possibility for family caregivers to give up their jobs to care for their family members. Therefore, government is suggested to increase subsidies and its coverage and provide financial assistance programs to make the technology more equitable and affordable for caregivers.

(4) Encouraging inclusive technology development process

To enhance caregivers' adoption and use of digital health technologies, whether the technology devices have simple and user-friendly interface and meet users' needs is the key. Therefore, government can provide incentives and guidelines to encourage technology companies and research institutes to include caregivers in the design stage and to conduct studies to understand the needs, preferences, and barriers faced by caregivers from diverse backgrounds in accessing and using digital health technologies. The findings can in turn inform policies and technology development practices to develop user-friendly technologies with intuitive interface.

(5) Enhancing data collection and protection

To ensure the developed technology products are suitable for different groups of users, data should be collected from diverse groups of paid and unpaid caregivers, considering their diversity in gender, age, ethnicity, living area, educational level, and socioeconomic status. Government is suggested to share data with the private sector and provide guidelines regarding data usage and technology development. Robust privacy and security measures should also be implemented to protect sensitive health information.

(6) Strengthening public-private partnership

The collaboration between researchers, developers, care institutions, governments, and civil society is crucial to ensure gender equality and inclusion in digital health technologies for caregivers. Researchers should conduct user-centered research and collaborate with community organizations to reach marginalized populations. The research results should beshared with developers to design technologies that meet the needs of caregivers of diverse backgrounds, and with governments to inform policies. Governments should coordinate different departments and develop policies to expand technology accessibility and improve usability, including providing training for family caregivers. Care institutions should integrate technologies efficiently and train their professionals. Finally, civil society can participate in evaluation and monitoring to ensure the objectives of equality and inclusion are met.

諮詢訪談會議摘要

概述

本計畫於2024年4月3日及4月9日舉辦2場APEC線上諮詢訪談會議，透過焦點團體的形式進行，訪談目標如下：

一、了解無酬及有酬照顧工作者在應用數位健康科技於照顧工作方面的需求和挑戰。

二、了解如何讓數位健康科技的研發過程更符合性別平等，並能符合照顧者的需求。

三、指出如何透過政策，讓數位健康的發展更具性別包容性。

在2場諮詢訪談會議中，共有27位參與者出席，分別來自澳洲、汶萊、加拿大、智利、日本、馬來西亞、墨西哥、紐西蘭、菲律賓、俄羅斯、新加坡、我國、泰國等13個經濟體，各自代表不同的利害關係人，包括政府官員、數位健康科技開發人員、有酬及無酬照顧工作者及學者等。2次訪談皆邀請參與者針對照顧者使用數位健康科技的挑戰、照顧相關科技的研發如何更具包容性，以及如何促進女性照顧者近用數位健康科技等三個面向的問題分享經驗與看法。

訪談摘要

一. 數位科技在照顧工作中的運用

根據參與者的分享，數位科技已運用於照顧工作的不同面向中，包括遠距醫療、線上預約與諮詢、病患監測、護理資訊系統、照顧者的線上支持社群、照顧服務地圖及照顧者排班等。

在成為照顧者時，這些女性通常不一定了解如何提供適當的照顧，尤其是當受照顧者有些醫療狀況，而需要特別的照顧措施。此外，照顧是個十分耗費心力且容易令人感到孤單的工作。

因此，科技對照顧者能夠帶來助益，包括提供有用的資訊、創造讓照顧者可彼此互相支持的網絡等，皆可支持其照顧角色、回應照顧者的福祉。

然而，仍有許多因素會阻礙照顧者在照顧工作中使用數位科技。參與者提到的主要障礙如下：

(一) 照顧者可能較缺乏使用科技所需的數位素養，以及對新興科技的接受度較低，尤其是中高齡的家庭照顧者。
(二) 科技產品的使用方式可能較為複雜，同時，照顧者未獲得相關技術上的協助。
(三) 缺乏網路連線等基礎設施，尤其是在偏鄉地區。
(四) 照顧科技的取得和維運通常較為昂貴，尤其對於需要犧牲個人工作以照顧家人的家庭照顧者而言，更是難以負擔。
(五) 許多照顧工作者為外籍移工，因此可能面臨語言和文化上的隔閡。

綜上所述，影響照顧者使用數位健康科技的因素包括性別、年齡、教育程度、經濟狀況、居住區域、文化和語言背景等，顯示關注照顧者本身的交織性十分重要。

二. 照顧相關數位健康科技的研發

參與者於諮詢訪談中指出了數位健康科技在研發過程中可能隱含的問題與挑戰，並針對如何讓科技研發更具性別包容性以符合照顧者的需求提出相關建議。參與者提供的建議可歸納如下：

(一) 以使用者為中心的科技發展

雖然女性多為主要的照顧者，因而擁有豐富的照顧經驗，但她們的經驗和想法卻較少在科技研發過程中被聽見與被採納。事實上，科技研發的過程經常只被簡化為單純的工程問題，而非以人為對象的問題。然而，照顧是個以人為中心的工作，若照顧相關科技的開發缺乏以使用者為中心的思考，那麼開發出的科技產品便很難被順利採用。

不過，照顧者也並非同質性的群體。她們具有不同的年齡、教育程度、語言及社經地位，來自不同的居住區域與文化背景。因此，在開發照顧科技產品時，事實上也很難找到一群照顧者，可以完全代表不同照顧者的經驗和需求。

因此，為確保科技發展是以人為核心，並且將照顧者經驗充分納入考慮，參與者提出以下建議：

1. 進行研究以瞭解性別如何影響科技的採用。
2. 採取協同設計法進行科技產品的開發；在早期的產品設計階段就納入不同背景的照顧者，研究者可在照顧工作場域中與這些照顧者合作，以了解他們想要解決的問題。
3. 進行參與式研究，找出照顧者的需求和主要擔憂的問題，同時將這些照顧者的性別、年齡、教育程度、語言、居住區域及文化背景等納入考慮。
4. 邀請照顧者進行產品測試和評估，以蒐集他們的意見和回饋。

(二) 讓更多女性成為科技開發者

縱觀歷史，科技主要是與男性連結在一起，性別刻板印象與偏見限制了女性在科學和技術發展中的參與。因此，需要改變這樣的論述，並支持更多女性參與科技研發。特別是由於大多數照顧者是女性，因此應該招募更多的女性開發人員來開發照顧相關科技。

參與者建議，研究機構在提供研究經費時，可以將性別衡平或性別包容性設定為補助標準之一，以推動相關研究的性別平等和包容性。這不僅可激勵研究團隊招募更多女性研究人員，還可提高研究人員對性別平等、多元化、和包容性的認識。

(三) 具包容性的人工智慧系統

雖然人工智慧(AI)能幫助我們發展出使用者友善且容易使用的裝置和介面，但由於AI系統的建立來自大數據分析，因此容易奠基於原本已隱含偏見的數據，因而產出帶有偏見的結果。因此，蒐集數據、設計AI的過程都必須特別注意到多元性與包容性的議題，包括必須確保所蒐集的數據是來自多元的群體，以確保所開發出的科技產品能真正適用於所有人。

三. 不同利害關係人的未來行動

為確保不同背景的照顧者在照顧工作中都易於取得、使用相關科技，參與者建議，應強化相關政策來解決前面所提及的各種挑戰，包括科技的近用性與可負擔性、數位技能缺乏、語言隔閡等。因此，參與者提出了數項建議，讓政府、研究單位、科技公司、照顧機構等不同利害關係人在未來可採取相關行動。

(一) 為照顧者提供數位技能培訓與技術支援

缺乏數位素養與技能為照顧者使用照顧相關科技的主要障礙之一，尤其無酬家庭照顧者更為如此。因此，對於家庭照顧者，政府應提供教育資源與訓練計畫，以增強他們的數位素養和科技使用能力，並為他們提供適合家庭學習者的課程和靈活的時間表。此外，也可在社區內建立同儕培訓和交流機會，以支持照顧者持續學習和應用資通訊相關技能。

另一方面，對於專業有酬照顧工作者，當長照機構或醫院等照顧場域引進新的科技產品時，這些機構或科技產品公司應將這項產品詳細介紹給所有照顧工作者，解釋他們為什麼需要這項產品、這項產品可以如何幫助他們提升工作品質、會蒐集哪些數據等。此外，照顧工作者也應參與數據的評估及應用過程。同時，仍然需要提供這些專業照顧工作者數位技能培訓，確保他們具備足夠知識與能力，而能有效使用這些科技產品。

同樣重要的是，在引進科技產品之後，科技公司也應持續提供技術支援，來協助解決困難複雜的技術問題。

(二) 改善網路基礎設施，並開發離線方案

在偏鄉地區，缺乏網路相關基礎設施造成網路連線不穩的情況，會影響數位健康科技的使用。因此，政府應與電信業者合作，改善網路連線品質，將網路存取範圍擴大到服務不足的社區，或提供偏鄉地區網路連線的補助。

此外，科技公司或研究機構也可開發其他創新方案，例如離線存取模式或僅需少量行動數據的應用程式，讓照顧者即使網路連線不穩仍然可以使用這些數位產品。

(三) 增加科技產品的可負擔性

可負擔性的議題牽涉到數位健康科技產品的購買與維護成本較高、政府所提供的照顧補助有限，同時，許多家庭照顧者因為需要照顧家人而放棄原有的工作，更造成他們難以負擔這些科技工具。因此，建議政府應增加科技輔具的補助經費和補助範圍，提供相關補助方案，使一般家庭照顧者更能夠負擔這些科技。

(四) 鼓勵具包容性的科技研發過程

要提高照顧者採取並善用數位健康科技，一項重要因素是科技設備是否具有簡單、

使用者友善的介面，並滿足使用者的需求。因此，政府可提供指引與經費補助等誘因，鼓勵數位健康科技的研發單位將照顧者納入他們的產品設計階段，以及進行照顧者研究，以了解不同背景的照顧者在近用數位健康科技方面的需求、偏好、面臨的困難等，並在過程中將這些因素納入考量，以產出使用者友善的科技產品。此外，所獲得的研究結果也可進一步為政策制訂提供所需的資訊。

(五) 數據蒐集與保護

為確保研發出的科技產品能符合不同使用者的需求，應盡可能蒐集不同群體的有酬與無酬照顧者的資料，使性別、年齡、族群、居住地、教育程度、社經地位等多元性都可被納入考慮。此外，政府可與私部門分享數據，並針對數據的使用和科技研發提供指引。同時，由於健康相關數據具個人隱私性，因此應制定完整的數據安全與隱私政策。

(六) 加強公私部門夥伴關係

要推動照顧相關數位健康科技的性別平等與包容性，研究單位、開發人員、照顧機構、政府、公民組織等不同利害關係人的合作十分重要。舉例而言，研究單位應進行以使用者為中心的研究，並與在地公民團體合作，以確保研究可觸及弱勢邊緣群體。而研究成果則可與開發人員分享，來設計符合這些使用者需求的產品，同時也與政府分享提供政策制定的參考。

政府則應協調不同部會制定相關政策措施，以增加數位健康科技的可近性與實務運用，包括提供家庭照顧者相關訓練。照顧機構則可協助讓數位健康科技有效結合照顧工作，同時也為專業照顧工作者提供訓練。最後，公民組織可發揮監督的角色，確保平等與包容的目標得以實現。

Host | 行政院性別平等處 Department of Gender Equality

Organizer | Foundation for Women's Rights Promotion and Development 財團法人婦女權益促進發展基金會