



Report final seminar

Ageing and place in a digitizing world

19th and 21st of April 2022



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Background JPI MYBL

The Joint Programming Initiative 'More Years, Better Lives' ([JPI MYBL](#)) seeks to enhance coordination and collaboration between European and national research programmes related to demographic change. Areas affected by demographic change cover a wide range of research fields and policy topics ranging from health to social welfare, education & learning, work & productivity to housing, urban & rural development and mobility. JPI MYBL therefore follows a transnational, multi-disciplinary approach bringing together different research programmes and researchers from various disciplines in order to provide solutions for the upcoming challenges and make use of the potential of societal change in Europe.

We are an initiative of currently [9 member states](#) represented by representatives of ministries, funding agencies, civil society and research institutes. Throughout the year we organise workshops at conferences and with partners, attend meetings, collaborate with other institutions, organise expert processes, publish positions and policy papers and support and supervise the projects we are funding in research calls.

Objective joint call

This call is concerned with the ways in which the health and wellbeing of older people, at all stages of later life, is supported and promoted through the design of the social and physical environment, access to opportunities to learn, and the use of technologies of all kinds. The objective is seeking for innovative, transnational and interdisciplinary collaborative projects that investigate the potential of technology, place and learning in relation with the older population.

Research addresses the main topic of technology and may also address topics of place and learning, in relation with technology.

- Technology: how can existing and emerging technologies improve the quality of life, engagement and social integration of older people?
- Place: how do individuals experience the places where they live, work and interact with others, and how can learning and technology enhance or diminish their quality of life?
- Learning: how can opportunities for learning best be made available and accessible for older people, through public, private and third sector means?

Programme outline final seminar

The final seminar of the *Ageing and place in a digitizing world* joint call was spread over two days. In total eight projects participated in the final seminar: ACCESS, VoiceAdapt, HARVEST, and ORIENT on the first day (April 19th 2022). BCONNECT@HOME, MCI@WORK, COORDINATEs, and PAAL on the second day (April 21st 2022). Each final seminar started with a welcome by Janice Keefe, the moderator and the Vice-chair of the Scientific Advisory Board of JPI 'More Years, Better Lives', followed by a few words from Peter Allebeck, the Chair of JPI 'More Years, Better Lives' chair. Peter Allebeck highlighted the importance of the projects sharing their results with the MYBL community. After a brief introduction of the topic of the joint call by Janice Keefe, the principal investigators (PIs) gave a short introduction to their projects. They presented the aim of the project and highlighted the key findings (see Annex I). It became clear that due to the Covid19 pandemic the projects experienced an unexpectedly limited access to research subjects and locations. The project's contributions to answering the research questions were discussed in two topic sessions. Technology and learning were the topic on the first day, and technology and place on the second day. The principal investigators shared their views on the topics their projects addressed followed by a lively discussion with all participants. The final seminars closed with reflections and take-home messages. For the detailed programme outline, including speakers, see Annex II.

Topic sessions

I. Technology: How can existing and emerging technologies improve the quality of life, engagement and social integration of older people?

During the discussion it became clear that technology keeps evolving and the problem of “keeping up” will always be a challenge. Some technologies are intuitive, provided that the users have the self-confidence to try. Many of the technologies which benefit older people benefit younger people too. However, where there are specific needs, based for example on memory loss or disability, it is important to avoid stereotyping.

II. Place: how do individuals experience the places where they live, work and interact with others, and how can learning and technology enhance or diminish their quality of life?

The discussion on Place brought to light that technology is changing our notion of “place”. The environment has to be Familiar/secure/ supportive and inclusive. As for instance shopping moves online, the nature of town and city centres may be changing. In the past policymakers did not give sufficient attention to the role of the physical environment on the ability of older people to participate in society. There are signs that this is changing, but not fast and not everywhere.

III. Learning: how can opportunities for learning best be made available and accessible for older people, through public, private and third sector means?

Learning to use technology is more than simply an introduction. The results from the four projects presented show that learning is best made available and accessible at the location of need, offering multiple learning pathways and options to gain pure operating skills and be able to independently use digital technology in everyday life according to their needs and interests. Acknowledging that it is an on-going process is also of importance and the necessary instructional support connected to technologies needs to be offered in a sustainable and long-term form.

Reflections

Covid disrupted the projects, but it also provided a test case of the role of technology. As a great many older people learned to use new technologies. In considering policy on access to technology the focus should be on inclusiveness and citizenship.

JPI MYBL was advised to consider sustainability of the work when the project has ended, when planning joint transnational calls.

Annex I: Summary and key findings projects

ACCESS

Project coordinator: Claudia Müller



Project website: <https://access.wineme.fb5.uni-siegen.de/>

Digital media and new technologies can support older persons' wellbeing and enrich their every-day lives. However, seniors face a multitude of obstacles and hindrances when taking on these modern technologies. ACCESS provides socially embedded learning opportunities for older persons with low technical skills in order to enable them to get in touch with modern technology and find meaningful ways for its every-day use. ACCESS explores, implements and evaluates new modes for older persons of approaching the new digital worlds and to gain experiences and sustainable knowledge and skills. To achieve this, different settings of informal, non-formal, and formal learning will be examined and further developed in combination with different forms of learning (courses, senior-to-senior, negotiation spaces) as new learning opportunities. Besides, a stationary as well as a mobile demo kit of assistive technologies will be created, accompanied by a training concept for learning providers and organizations, who will integrate these objectives in their repertoire of learning opportunities in the field of digital literacy. ACCESS combines expertise from five participating countries (Austria, Finland, Germany, Italy, Japan) and considers a range of nation-specific different social and political framework conditions. By cooperating with local practice partners, the project will examine diverse local circumstances and institutional structures supporting digital literacy of older people.

Key findings

Major challenges

- Negative self-images and attitudes in older adults
- Negative images of ageing in ICT development
- However, If sufficient support is provided, older adults may benefit from digital technology.
- Design processes must focus more explicitly on older adults' learning needs.

Model of technology, ageing and place:

- Older adults interact with ICT on various levels: micro, meso & macro level
- The learning process regarding digital technology needs to focus...
 - On the behavior, attitudes, and learning motivations of older adults
 - And their embeddedness in social, economic and learning structures constituting these behaviors, attitudes, and motivations
- The technical device itself enables or limits the learning process.

Guidelines to support the development of learning opportunities for older adults:

- Learning motivation
- Heterogeneity of users and non-users: variety of learning formats
- Informal learning spaces: low-threshold, neighborhood
- Age-related design problems of modern ICTs
- Learning spaces: environments of active participation & long-term, sustainable support
- Educator-learner balance of power
- -> Co-design of ICT AND learning opportunities



VoiceAdapt

Project coordinator: Sebastian Moeller

Project website: <https://www.voiceadapt.de/>

Despite the prognosis that the aging population is expected to have on increasing stroke prevalence, current advances in the availability of digital technologies for aphasia rehabilitation provide hope for those affected by this condition. VoiceAdapt project aims to empower elderly people with aphasia (PwA) by means of improving their communication capabilities and their daily communicative activity to attain greater levels of long-term recovery. To this end, we apply innovative speech-sensitive technology to application-based support & training of PwA in order to develop a system that detects and adapts to spoken language deficiencies that are typical signs and symptoms of aphasia. Building on existing speech training and adaptive testing approaches, at the core of the system is an intelligent personalization and adaptation engine that receives input from multiple data sources (language training application, voice and interaction pattern analysis) and dynamically adapts a) the multimodal interface of the application as well as b) the behaviour itself to individual mental states and cognitive capabilities, in particular with regard to their cognitive disabilities. Continuous involvement of PwA, their caregivers and medical experts during development leads the way to the conduction of a randomized controlled trial (RCT) with PwA to measure and monitor the impact of the developed adaptive training tool on participants' linguistic abilities, communication habits and quality of life.

Key findings

- User-centred design process → usable application
- Used by patients at home
 - Remote delivery of VoiceAdapt app-based therapy → feasible and successful
- VoiceAdapt appears to affect:
 - Naming capabilities of female patients
 - Boston Naming Test (BNT) Primary Outcome
- Clear recommendation → policy makers
 - Inclusion of self-service health applications
 - Collaboration → professional care providers



HARVEST

Project coordinator: Simon Lindgren

Digital health and social care, so-called eHealth, is an emergent phenomenon which is portrayed as a way of managing societal challenges like demographic ageing, relocation from rural areas and increased demands for availability. But yet, there is a lack of research on the real impact and consequences of eHealth, especially in relation to old age users in rural areas. In this collaborative and transnational project, we will explore the changing dynamics of health and social care by empirically and theoretically examining old age users' use and non-use of "virtual health rooms", virtual health and social service centres, digital care applications – care apps – and health and social care information online, in rural regions. Using an ethnographic approach, we try to understand (a) the impact of ICTs in the everyday lives of older people; (b) the role of (rural) place; and (c) the relationship between technology and digital competences in relation to older people's use of eHealth in three different countries: Finland, Italy, Sweden. The final goal is to provide relevant information for policy-makers, to develop eHealth projects that go beyond a technocentric and deterministic approach and consider the real and cultural context of use of digital technologies among elderly.

Key findings

- Transforming social and care networks
 - Informal carers
 - Professionals
 - Technology itself
- Changes in the nature of interaction
- eHealth as both individual and social practice
- Digital competence must be understood in context
- eHealth policy tends to be solutionist and tech-deterministic



ORIENT

Project coordinator: Helinä Melkas

Project website: <https://www.robotorientation.eu/>

The ORIENT project focuses on orientation; introduction to technology use and learning of different skills for effective use in the spirit of co-creation. Various obstacles to care robot acceptance and shortcomings in their use have been identified. In ORIENT, new methods and models will be developed for orientation into care robot use – taking into account the needs of older customers and their relatives as a first priority. Caregivers, care service organizations and the societal level, other stakeholders in the ‘innovation ecosystem’ such as business and industry, public administration and the non-profit sector, are also included. Knowledge, know-how, know-why and know-what will be boosted by active interaction between ORIENT and the people utilizing the results. ORIENT’s societal and social objectives are to smoothen the co-creation of care robot technology and service innovations by identifying, characterizing and developing best practices for orientation into care robot use at the different levels of the ecosystem. This is also expected to contribute to economic objectives, such as more effective use of technology in welfare services, with careful attention to the needs of responsible research. The project builds on close cross-border collaboration and exchange. The scientific objective is to link the traditionally practice-oriented theme of orientation to the theories of sociotechnical transition, where new technologies are seen to contribute to broader societal changes.

Key findings

Four central aspects of care robot orientation:

1. *What* is care robot orientation?
2. *Why* is it necessary?
3. *Who* needs it and *by whom* should it be given?
4. *How* should it be performed?

Central role of meso-level actors (such as service providers, companies, education and interest organizations) in care robot orientation – mediators between the grassroots (micro) level and broader societal (macro) level.

Advancing and hindering elements in embedding care robots into society and practice:

- Both technical and social in nature.
- Important to understand the wider socio-technical transition.

BCONNECT@HOME

Project coordinator: Eugène Loos



This project investigates fundamental changes in the contemporary experience of later life, at the intersection of digital infrastructures, place and the experience of “being connected”. We address a research gap by exploring and theorizing the role of digital communication devices (such as smartphones (that will be tracked), tablets, PCs, apps, fitness trackers, pedometers, or “brain games”) in relation to the modern life course. And we combine this theoretical approach with a practical goal of making our insights actionable through co-design by involving older people and other relevant stakeholders in “Academic Work Places” in The Netherlands, Spain, Sweden and Canada. The project is contextualized by debates around ageing in place, loneliness and social isolation, and the idea that these are age-related challenges that require interventions. The potential of such interventions has so far not been realized because the complexities of human-machine interactions are both under-theorised and over-instrumentalised in technology projects. To have impact, new devices to stimulate social engagement and social connectedness need to be based on a fine-grained understanding of digital use as an integral element in the contemporary experience of “being connected”. We will deliver such understanding and utilize it in order to realize impact for older citizens, business and policy maker alike – impact that will help alleviate the increasing burden of loneliness and social isolation.

Key findings

Older adults as early adopters: Their unexpected and innovative use of new digital devices

Innovative older adults are able to reconfigure technology by deviating from the scripts as they were originally planned by technology companies.

- Case 1: e-bike - older people cast in the role of early adopters, rather than laggards, in product innovation
- Case 2: deliberate missed calls - innovative mobile phone users
- Case 3: innovative unobtrusive App Are you OK today

Smartphone use in later life: A life line

- The smartphone: access to older adults’ support network, that is, when the individual needs to receive any form of care (services and products) in the public or private sphere.
- The typology of apps of the older adults’ use. Not exclusively shaped by their medical condition (as some problem-solving approaches might assume), but by personal interests, social life, shopping and being a citizen.
- The smartphone’s perceived role in individuals’ lives: higher association levels to perceived social connectedness than the tracked intensity of use.

Design workshops: Giving voice to older adults

- Our methodological framework for conducting design workshops: How to involve older adults allowing them to experience digitization and express their digital wishes for their everyday life.
- This methodological framework: a tool for social scientists wishing to organize design workshops in order make older adults’ voice heard about their needs and ideas of how to use new digital devices in their everyday life.
- Resulting in: a new flavor to technology developments and critical perspectives on how society’s norms and values affect the situation of older adults in connection with digitalization.



MCI@WORK

Project coordinator: France Légaré

Most older adults facing loss of autonomy choose to continue living at home. Governments are also interested in enabling older adults to remain safely at home. We aim to develop technology that augments self-management among older adults living at home and their caregivers, and use information generated by the technology to inform shared decision making about housing options among older adults impacted by early-stage dementia, their caregivers, healthcare professionals and policymakers. We will therefore 1) assess the self-reported and Global Positioning System (GPS)-reported mobility of people with early-stage dementia still living at home; 2) co-design an enhanced version of the TakeCare platform; 3) assess experiences of users of the new system; 4) survey other potential users and identify factors influencing their willingness to use it; and 5) compare data between rural/urban areas and across jurisdictions in Canada, the Netherlands and Sweden. The outputs are self-reported and objectively measured data about mobility and health changes in older adults living at home in 3 countries; enhance technical support platform for self-management; factors influencing potential uptake; instructions and recommendations for implementation; information for shared decision making about housing options among end-users, including policy makers.

Key findings

Technology in focus

- Technology integrated: challenge as well as support.
- Designing technology: co-creation in progress.

Place (work-place, work-life, different contexts)

- Gaps, voids and blockages in the welfare system.
- Adaptations are possible.

Person in focus

- Agency & Citizenship.
- Self-initiated management approaches and strategies, Coaching.



COORDINATEs

Project coordinator: France Legare

Most older adults facing loss of autonomy choose to continue living at home. Governments are also interested in enabling older adults to remain safely at home. We aim to develop technology that augments self-management among older adults living at home and their caregivers, and use information generated by the technology to inform shared decision making about housing options among older adults impacted by early-stage dementia, their caregivers, healthcare professionals and policymakers. We will therefore 1) assess the self-reported and Global Positioning System (GPS)-reported mobility of people with early-stage dementia still living at home; 2) co-design an enhanced version of the TakeCare platform; 3) assess experiences of users of the new system; 4) survey other potential users and identify factors influencing their willingness to use it; and 5) compare data between rural/urban areas and across jurisdictions in Canada, the Netherlands and Sweden. The outputs are self-reported and objectively measured data about mobility and health changes in older adults living at home in 3 countries; enhance technical support platform for self-management; factors influencing potential uptake; instructions and recommendations for implementation; information for shared decision making about housing options among end-users, including policy makers.

Key findings

- Most significant achievements: patient engagement and empowerment (patient-oriented research).
- People can navigate, adapt and live well with memory problems; understanding the mobility patterns provides powerful information on how social and built environment characteristics can help them navigate their environment and gain a sense of inclusion in society and being engaged in housing-related decision.
- Co-design of e-DSI needs to be tailored to the country (cultural particularities, languages and needs).
- Older adults were proud of their ability to use web tools and showed an interest in using technologies at home.
- Lessons learned: partnership across three countries (4 different regulations); FSNP (forming, storming, norming, performing); regular meetings.

PAAL

Project coordinator: Francisco Florez

Project website: <https://paal-project.eu/>



European and other countries around the world are facing crucial challenges regarding health and social care because of the demographic change and current economic context. Innovation in technologies and services for Active and Assisted Living stands out as one promising solution to address these challenges while profiting from the economic opportunities. For instance, lifelogging technologies may enable and motivate individuals to pervasively capture data about them, their environment, and the people with whom they interact in order to receive a variety of services to increase their health, well-being, and independence. The aim of this project is manifold: to increase the awareness of the ethical, legal, social, and privacy issues associated to lifelogging technologies; to propose privacy-aware lifelogging services for older people, evaluating their acceptability issues and barriers to familiarity with technology, to elaborate on possible strategies for overcoming them, promoting the use of technologies of all kinds, and opportunities to learn; and to develop specific applications referred to relevant use cases for older and frail people. The synergies produced by the international cooperation of experts from different disciplines will lead to robust and reliable lifelogging systems, which will provide more valuable and trustworthy services for the end users and will facilitate development and deployment, speeding up route to market for lifelogging solutions addressing older adults.

Key findings

Key findings – privacy by design: privacy concerns raised by lifelogging technologies might be managed by applying Privacy by Design, an approach that involves embedding legal rules into information systems in all stages of their development. Stages being: sensor level, model level, system level, user-interface level, and user level.

Key findings user level:

- Technology acceptance is a complex, multi-faceted phenomenon.
- User's acceptance of lifelogging technology as prerequisite for sustainable usage and adoption.
- Perception of technology-related benefits and barriers shape acceptance.
- Application context and type of technology can influence technology acceptance.
- Individual characteristics of potential users can affect the perception of benefits and barriers as well as acceptance.

Key developments user-interface level: recent advances in sensors (wearables, home sensors, cameras...) and artificial intelligence (AI) allow the development of lifelogging solutions to support older and frail people. AI can also be employed to protect the privacy of those being monitored.

Key developments lifelogging applications: recognition of activities of daily living.

Annex II: Programme outline final seminar

April 19th 2022

13:25	Enter virtual space
13:30-13:35	<p>Welcome</p> <p>Moderator and Vice-chair SAB JPI ‘More Years, Better Lives’ <i>Janice Keefe</i></p> <p>Chair JPI ‘More Years, Better Lives’ <i>Peter Allebeck</i></p>
13:35 – 14:20	<p>Introduction to the projects & key findings</p> <p>ACCESS <i>Claudia Müller</i></p> <p>VoiceAdapt <i>Jan-Niklas Voigt-Antons</i></p> <p>HARVEST <i>Simon Lindgren</i></p> <p>ORIENT <i>Helinä Melkas</i></p>
14:20 – 14:30	Screen break
14:30 – 15:05	<p>Topic session I</p> <p>Technology: How can existing and emerging technologies improve the quality of life, engagement and social integration of older people? <i>Janice Keefe</i></p>
15:05 – 15:40	<p>Topic session II</p> <p>Learning: How can opportunities for learning best be made available and accessible for older people, through public, private and third sector means? <i>Janice Keefe</i></p>
15:40 – 16:00	<p>Reflections and take home messages</p> <p>Moderator and Vice-chair SAB JPI ‘More Years, Better Lives’ <i>Janice Keefe</i></p> <p>JPI ‘More Years, Better Lives’ Secretariat <i>Denice Moi Thuk Shung</i></p>

April 21st 2022

- 13:25** **Enter virtual space**
- 13:30-13:35** **Welcome**
- Moderator and Vice-chair SAB JPI 'More Years, Better Lives'
Janice Keefe
- Chair JPI 'More Years, Better Lives'
Peter Allebeck
- 13:35 – 14:20** **Introduction to the projects & key findings**
- BCONNECT@HOME
Eugène Loos
- MCI@WORK
Louise Nygård
- COORDINATEs
France Légaré
- PAAL
Francisco Florez-Revuelta
- 14:20 – 14:30** **Screen break**
- 14:30 – 15:05** **Topic session I**
- Technology: How can existing and emerging technologies improve the quality of life, engagement and social integration of older people?
Janice Keefe
- 15:05 – 15:40** **Topic session II**
- Place: How do individuals experience the places where they live, work and interact with others, and how can learning and technology enhance or diminish their quality of life?
Janice Keefe
- 15:40 – 16:00** **Reflections and take home messages**
- Moderator and Vice-chair SAB JPI 'More Years, Better Lives'
Janice Keefe
- JPI 'More Years, Better Lives' Secretariat
Denice Moi Thuk Shung