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Digitalisation, physical activity, and learning: three levers to promote older adults' well-being and reduce their risk of social exclusion

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ABSTRACT

Despite the growing diffusion of the Internet and information and communication technologies (ICT) among the general population, only a small proportion of older adults actively use them, although their significant potential to enhance physical, psychological, and social well-being. Consequently, ICT may exacerbate the pre-existing risk of social exclusion among older adults, particularly those living in rural or remote areas. This article presents the results of an innovative project in a mountainous area of one of Italy's most aged regions, aimed at fostering healthy and active ageing among older adults through the integrated promotion of health, social engagement, and digital learning—three interdependent components, each essential to well-being but insufficient on their own. The findings are based on a study involving the administration of an evaluation questionnaire to 61 older participants, along with three semi-structured interviews with project coordinators and trainers, offering recommendations on the role that social work can play in promoting ICT use among older adults as a means of health promotion and reducing their risk of social exclusion.

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Introduction

Population ageing is a long-standing trend across industrialised countries and is expected to intensify in the coming decades, particularly among the oldest age group (80+). While this shift poses well-documented challenges—such as a shrinking workforce, increased pressure on pension systems, and rising demand for health and social care—it also presents opportunities, especially when ageing occurs in good health.

This dual perspective has informed international strategies promoting 'active ageing', a concept endorsed by the World Health Organization (WHO, 2002) and further articulated as a means not only to mitigate welfare impacts, but also to enhance health, participation, and quality of life among older adults. Reflecting this vision, the United Nations and WHO launched the Decade of Healthy Ageing (2021–2030), a global initiative aimed at combating ageism, fostering biomedical innovation, and supporting age-friendly environments and policies at the local level.

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At the European level, policy efforts since *Towards a Europe for All Ages* (1999) have framed ageing as a societal opportunity (European Commission, 2021a, 2021b). These include measures to promote lifelong learning, encourage intergenerational solidarity, and foster healthy lifestyles through physical activity, proper nutrition, social engagement and digitalisation.

Regular physical activity (PA) performed as sport or part of daily living, occupation, leisure, or active transportation is a key factor in preventing and managing non-communicable diseases and promoting mental health, cognitive functioning and quality of life. For this reason, in 2023, the WHO launched 'Promoting physical activity for older people: a toolkit for action' where it is recommended that as part of their weekly physical activity, older adults should do varied multicomponent physical activity at moderate or greater intensity on 3 or more days a week. People who engage in these recommended levels in fact, have a 20–30% lower risk of dying prematurely, while physical inactivity is the fourth leading cause of death worldwide and accounts for 6–10% of the incidence of major non-communicable diseases and for 7–8% of depression and dementia (Steinhoff & Reiner, 2024).

Lifelong learning (LL) can have profoundly positive effects on older adults' quality of life, their outlook on life, and images of ageing (Jenkins, 2011; Jenkins & Mostafa, 2015; Schoultz et al., 2020), particularly in the context of digital technologies where involvement in online activities has been recognised promoting well-being and social inclusion in later life (Forsman & Nordmyr, 2017; Seifert et al., 2018). ICT has been recognised as essential solutions not only for disease prevention, personalised care, and enhanced autonomy but also for improving older adults' well-being and social participation.

Nonetheless, too less older adults are still engaged in PA, LL and use of ICT, reinforcing the risk of social isolation and exclusion that already disproportionately affect them. In most countries PA decreases with age, with around 67% of people aged 65–74 and 75% of people over 74 not meeting WHO's recommendations (Steinhoff & Reiner, 2024). While 79% of the European elderly population have access to the Internet at home, only 58% use it on a daily basis, merely 38% make use of e-health services, 53% use email, and just 21% possess basic or above-basic digital skills (Eurostat, 2023). Older adults remain difficult to reach with both formal and non-formal learning activities (De Lima Flauzino et al., 2022).

Many barriers, in fact, obstacles PA, LL and ICT access and use among older adults. PA is obstacled by physical problems, concerns about health and fitness, lack of motivation and/or interest, fear of falling, time limits due to family responsibilities, and most frequently by having no companion, lack of support by medical professionals, or family/friends, and physical barriers to walking, temperature and weather (Kilgour et al., 2024; Yarmohammadi et al., 2019). Likewise, digital access and use are obstacled by a complex and multifaceted condition, called grey digital divide (GDD) (Morris, 2007; Morris et al., 2007), that operates at different levels (Alexopoulou et al., 2022) and encompasses numerous factors related to ageing and health status (Chen & Xu, 2022; Laukka et al., 2024; Vicente, 2022), limited awareness of digital resources, low perceived usefulness, reduced digital literacy (Huxhold et al., 2020), individualised trajectories of technological appropriation, generational histories and spatial layout of the home (Carlo & Buscicchio, 2023), absence of support networks (Mizrachi et al., 2020; Wilson et al., 2021), digital service design (Zelenev, 2023).

Nevertheless, older adults should not be dichotomised into users and non-users (Chee, 2024), as well as into PA practitioners and not-practitioners or motivated and unmotivated to learn; rather, they represent a very heterogeneous group where can be recognised several typologies of digital users (Melchior, 2022; Menéndez et al., 2020; Vulpe & Crăciun, 2020) and present a great variation in motivation to learn (Marcaletti et al., 2018; Pihlainen et al., 2021, 2023; Tyler et al., 2020), as well as motivations to PA (Kilgour et al., 2024; Yarmohammadi et al., 2019).

Recognising this diversity and connecting PA, LL and digital skills training to older people's lived experiences, needs, values, and aspirations are essential (Schirmer et al., 2022). Effective training, therefore, must go beyond technical skills and physical exercises: it should foster curiosity, awareness, and interest as well as enjoyment and socialisation (Blažič & Blažič, 2019; Creighton et al., 2022; Garcia et al., 2021; Jenkins, 2011).

The project

The 'Learning Together While Moving' project was developed as part of the initiatives supported by Regional Law No. 22/2014 of the Friuli Venezia Giulia Region, titled *Combating Social Isolation and Promoting Active Aging*.

The project, developed by the Cramars Cooperative with the Municipality of Tolmezzo, local social and health services, and the local section of the Italian Alpine Club (CAI), was carried out in Carnia, a mountain region of 28 municipalities (≈1,200 km^2) with just over 35,000 inhabitants as of 1 January 2025. Older adults (65+) constitute 29.0% of the population—above the regional average of 26.91% – and the ageing index (300.42) is markedly higher than the regional figure (237.23).

The project pursued multiple objectives: promoting PA among older adults through structured walking sessions; assessing and addressing digital literacy needs to foster social empowerment; strengthening community participation and cohesion; increasing awareness and appreciation of local natural and cultural resources.

The initiative was designed following the Asset-Based Community Development (ABCD) approach (McKnight & Russell, 2018), which emphasises the mobilisation of existing community assets – skills, knowledge, institutional networks, and infrastructure. The planning phase began with a resource mapping process, identifying local associations, public services, and infrastructure, and continued with the active involvement of community members in needs assessment and co-design of the activities.

The project, launched in summer 2023 and completed in spring 2024, included a series of integrated actions: lectures and workshops on digital literacy, healthy nutrition, and health-related topics; guided walking sessions; a final community event.

Workshops combined traditional classroom-based learning with experiential outdoor training, enabling participants to apply knowledge in real-life and natural settings. Topics covered included:

- Digital literacy: safe use of smartphones and digital devices; use of mobile apps for health and well-being.
- Health education: the benefits of walking for physical and mental health; principles of healthy nutrition.

- Nature and leadership skills: training for community walk leaders to safely and inclusively guide group excursions.

Classroom sessions introduced theoretical concepts, while outdoor sessions focused on their practical application; for example, using mobile apps and wearable devices for environmental orientation, safety navigation, hazard detection, and cardiometabolic monitoring.

Instruction was provided by both internal trainers from the Cooperative and external professionals, including physicians, geriatricians, healthcare workers, and biologists from the local health authority. Guided walks were led by trained volunteers from CAI and facilitators from the Cooperative.

Each walking session offered three levels of difficulty (easy, moderate, and advanced) to ensure inclusivity and accessibility. Routes were selected to highlight the natural beauty and cultural heritage of the territory.

The workshops and walking sessions were conducted in autumn 2023 (September—December) and spring 2024 (March—June).

In total, seven workshops (3 hours each) and eight guided walking sessions were held. Organisational and logistical communication was facilitated through a dedicated WhatsApp group, which served as a real-time coordination tool for participants and organisers.

To promote long-term sustainability and community engagement, the Cooperative launched a contest at the end of the project, awarding prizes to participants who organised and took part in the greatest number of self-initiated group walks during the summer months.

In total, the project involved 152 participants, with a mean age of 68 years. Each workshop was attended by an average of 31 participants, while the average attendance for walking sessions was 70 participants.

Research objectives and methods

At the end of the project, an evaluation study (Patton, 2015) was conducted to assess whether it had met its objectives from the perspectives of both participants and organisers, focusing on potential changes in older adults' use of digital technologies (ICT), social engagement, and physical activity (PA). The study addressed two main questions:

(1) What impact did participation have on older adults' ICT use, PA, and social interactions?
(2) What social dynamics emerged during the activities, and how did these influence participants' interactions and community engagement?

An online questionnaire, developed specifically for this study, included 23 closed-ended items in three sections. The first collected socio-demographic data and participation details. The second assessed self-perceived levels of social engagement, physical activity (PA), and ICT use prior to the project—exploring frequency of social interactions, physical exercise habits, digital devices (smartphone, laptop, tablet, smartwatch) and apps (WhatsApp, Public Administration apps, pedometer, calorie counter,

georeferencing apps, apps for reading news) use and knowledge, and digital autonomy. Frequency was rated on a 1–4 Likert scale (1 = 'never', 2 = 'seldom', 3 = 'often', 4 = 'always'), while perceived levels of digital autonomy were rated on a 1–4 scale (1 = 'very low', 2 = 'fairly low', 3 = 'fairly high', 4 = 'very high'). For social engagement, respondents could select from: 'visit to friends/acquaintances', 'village festivals', 'University of the Third Age', 'weekly market', 'Mass', or 'other events'. PA was defined as any bodily movement produced by skeletal muscles requiring energy expenditure, encompassing exercise, sport, and physical activities performed in daily life, work, leisure, or active transportation.

The third section explored satisfaction with one's social life (Likert scale 1–4), perceived changes in social life ('my network of friends/acquaintances has expanded', 'I started attending new initiatives and/or events', 'I participate more in social and/or community activities', 'I go out more often', 'my social and community life has decreased', 'I have discovered new itineraries'), changes in PA practice (increased, decreased, stable), perceived digital autonomy (Likert scale 1–4), continuity of app use after the course, perceived usefulness of these apps in daily life, and whether the skills acquired had stimulated respondent's intention to use of digital devices. One final item asked whether participants had organised independent social gatherings beyond the project.

The questionnaire was reviewed by the project manager and coordinator, who requested the removal of items deemed too personal. Following approval, it was piloted with eight participants and revised accordingly. The manager and coordinator then invited all participants, guaranteeing anonymity, and distributed the link via email and the project's WhatsApp group. Consent for data use and analysis was obtained at the start. Data collection took place from early August to mid-September 2024. Bivariate analysis examined relationships between socio-demographic characteristics (gender, age, marital status, cohabitation) and other variables.

To explore organisers' perspectives, a semi-structured interview guide was developed, addressing participant engagement, satisfaction with content and methods, observed relational dynamics, difficulties in learning, and the project's strengths and limitations. Interviews were conducted with the project manager (PM), coordinator (Coord), and one trainer (Trai) involved in the digital literacy workshops. A single interview guide was used for all them; however, during the interviews, it was adapted to elicit the specific perspectives associated with their respective roles in the project (Patton, 2015). Transcripts underwent content analysis to identify convergences and divergences across viewpoints.

The data are stored in the University's institutional repository.

Findings

Sixty-one participants, representing 40% of the total, completed the questionnaire. Given that approximately half of the participants attended more than four activities, the survey response rate can be regarded as satisfactory, notwithstanding the relatively high proportion of non-respondents.

The majority were women (approximately 60%), with a mean age of 66 years. The most represented age groups were those between 60 and 70 years (41.0%) and over 70

(36.1%). Most respondents lived with a spouse (42.6%), although 23% lived alone. On average, they attended 2.5 workshops and 5 walking sessions.

Regarding pre-project social participation, one-quarter of respondents reported never meeting others socially, while another quarter engaged in weekly interactions mainly with friends or acquaintances or at local markets; accordingly, attendance at the University of the Third Age—one of the main LL initiatives — was among the least practiced activities (Figure 1).

With respect to daily PA, most respondents (67.8%) reported a medium-to-high level: 45.8% rated it as 'fairly high' and 22.0% as 'very high', with men reporting slightly higher levels than women (66.7% vs. 63.8%). Structured PA involved nearly half of the respondents (45.9%), with the majority practicing it daily (26.5%) or weekly (22.4%). These were mostly men (45.8% vs. 41.7% of women), aged between 60 and 69 years (52.0%), who in 66.7% of cases reported 'fairly high' or 'very high' levels of structured PA (vs. 63.8% of women), and practiced daily in 29.2% of cases (vs. 16.7% of women).

In terms of ICT access, 90.1% owned at least one digital device. Smartphones were the most common (80.3%) (Table 1). Devices were mainly used to communicate with friends and family (77%), read news (55.7%). 67.2% of the participants reported to be already familiar with the apps introduced during the project—especially women (75.0%), those

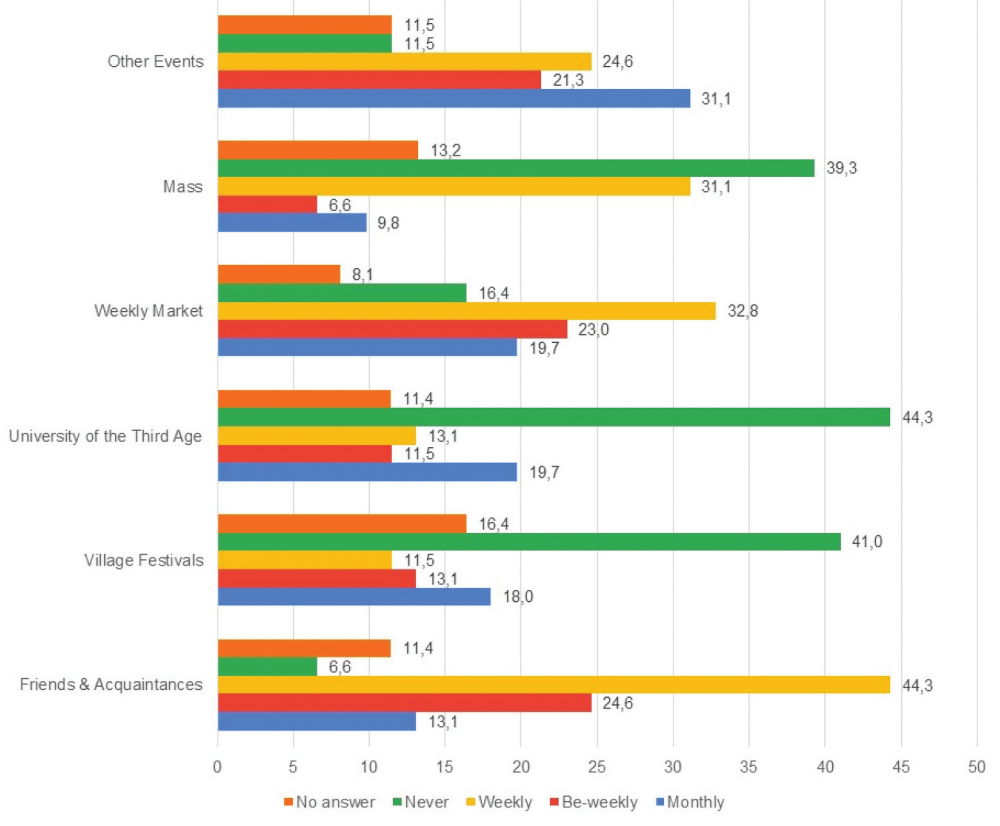

Figure 1. Frequency of participation in social occasions before the project *(% values).*

Table 1. Devices already owned before the project (*multiple answers possible*).

Type of device	%
Smartphone	80,3
Laptop	39,5
Tablet	29,5
Smartwatch	16,4
Non of the previous	9,8
I prefer not to answer	8,2

Table 2. Apps already familiar before the project? (*multiple answers possible*).

Type of App	%
WhatsApp	69,4
Apps of Public Administration	38,7
Pedometer	36,7
Calorie counter	22,4
GEORESQ	20,4
App track routes with GPS	20,4
App for reading news	2,0
I do not know	2,0
I prefer not to answer	18,4

living with children (77.8%), and those aged 49–59 (85.2%)—but only WhatsApp was widely known (69.4%) (Table 2).

In this regard, project organisers revealed unanimous recognition that, in many cases, the digital devices available were obsolete and unsuitable for educational activities, as noted by the PM:

> While everyone had a device, some were outdated. In those cases, we had to lend our tablets, which they couldn't keep, so they couldn't practice on their own. Others didn't have a home Internet connection, making it impossible to do exercises independently.

Another critical issue highlighted by all three interviewees concerned the low level of digital autonomy among participants, as well as their limited awareness of the potential offered by their devices, as referred by the PM:

> Everyone had the tools, but few understood what a smartphone or a smartwatch really is. [. . .] Many play on Facebook or randomly send messages on WhatsApp without knowing how to use the most useful features of the apps, such as those related to safety, communication, activity tracking, or even health monitoring and diet control.

This is confirmed by participants' perceptions. The largest share of respondents (35.6%) rated their digital autonomy as 'fairly low'. They are mostly women (38.9%), but also men are significant (29.2%). The presence of relatives in the household appeared to play an important role: those living with both spouse and children or only with children reported a 'very high' level of autonomy in 50.0% and 33.3% of cases, respectively, compared to 28.6% of those living alone and 18.5% of those living only with a spouse.

This gap led to a strong interest in learning how to use digital devices more effectively, as the coordinator noted:

> There was a real need to learn and deepen their knowledge of functions that they didn't use in everyday life—such as various features of WhatsApp and other apps already installed on their phones. [...] Also in terms of digital safety, there was a strong interest and a real motivation to explore the proposed content more deeply.

Nonetheless, the limited participation in digital literacy workshops compared to walking sessions might reflect the broader disinterest in digital learning, as observed by the trainer:

> At the beginning, their level of digital autonomy was medium-low. The widespread disorientation and the small number of people attending the workshops could be interpreted as a sign of general disinterest in the topic.

The main motivation appeared to be socialisation and the opportunity to engage in PA in familiar environments. In fact, apps were initially used to support social activities, as noted by the coordinator:

> The available platform—even though it was just WhatsApp—allowed many of them to share activities beyond the scope of the project. They would often post flyers about events that had nothing to do with our working group but could be interesting in terms of PA or informational events related to older adults, food, and so on.

Social bonds and shared interest in PA thus became catalysts for digital learning, as confirmed by the trainer:

> I joined after the walking sessions had already started, so they had already done something together. [...] You could immediately notice the camaraderie among them, [...] and this certainly helped with dialogue and the sharing of experiences and ideas.

As a result of their participation in the project, 73.8% of respondents reported an improvement in their social lives, expanding their social networks, meeting new people and participating in social or community activities, as shown in table n.4. This was especially true for women (80.6%), widowed (92.9%), those living alone (92.9%), and those aged 70 and over (81.8%).

Satisfaction with social life after the project was very high: 55.9% rated it as 'very high' and 39.0% as 'fairly high'. Men (95.8%) and those aged 60–69 (68.0%) were particularly likely to express the highest levels of satisfaction.

Regarding PA, 44.3% of participants reported an increase in frequency, while 39.3% indicated no change. Notably, no one reported a decrease in activity levels. Considering that 42.6% were already engaged in PA on a daily or weekly basis, these results indicate a positive trend. Increases were more frequent among men (45.8%), widowed individuals (64.3%), those living alone (78.6%), and participants aged 60–69 (56.0%).

Regarding the perceived level of autonomy at the end of the project, Figure 2 indicates that the majority of respondents rated their autonomy in smartphone use as 'fairly high'. WhatsApp emerged as the application with the highest proportion of responses (54.1%) falling within the 'very high' or 'fairly high' categories. Comparable ratings were reported by 41.1% of respondents for health-related applications and by 39.3% for secure app management. By contrast, only 31.1% of respondents reported feeling 'very' or 'fairly' autonomous in the use of public administration applications. Overall, participants who were already familiar with the applications prior to the project tended to achieve higher levels of autonomy than those without prior knowledge.

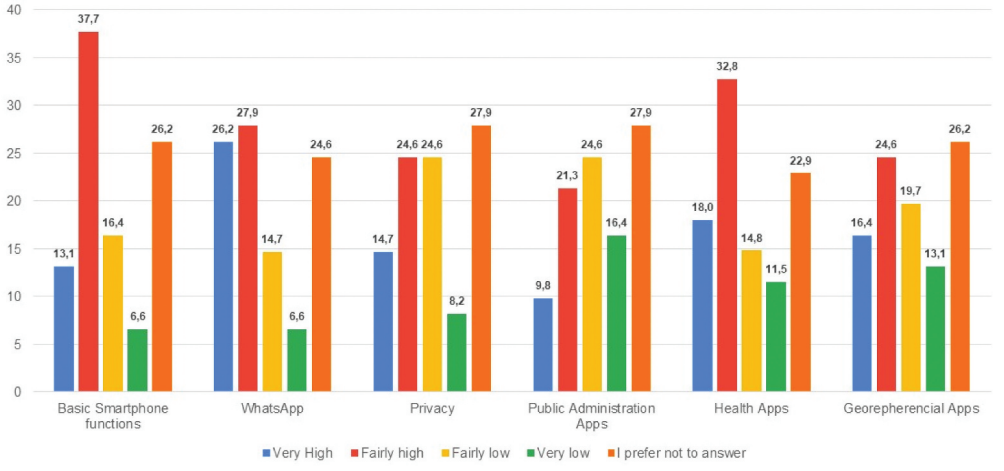

Figure 2. Perceived digital autonomy after the project.

A comparable pattern emerges in relation to the sustained use of digital devices and apps after the project (Figure 3).

Learning the apps required repeated, often one-on-one instruction. Although considered user-friendly, these tools were not intuitive for older users and required constant support, as reported by the coordinator:

> We had to remind them at every outing [. . .]. But it never became automatic—we had to support them each time, depending on the type of phone they had. And some still haven't learned it, so it's not something that comes naturally.

Device design and physical handling were also challenges, as noted by the trainer:

> Understanding wasn't the real issue. [. . .] The challenge was handling the device. Some needed one-on-one help.

Tailored activities and combining classroom and outdoor sessions—where apps for safety and health monitoring were introduced—proved effective although demanding in terms of time and support, as referred by the PM:

> Outdoor sessions were more engaging and allowed us to reach people who would never have come to a classroom setting, though they also had a downside, as the open-air environment created more distractions.

Active involvement of participants proved to be highly appreciated and particularly effective, as noted by PM and coordinator

> Another strength was the participants' active involvement. Often during our outings, participants themselves would share information on the natural or historical aspects of the walking routes. So, alongside digital skills, a new and unexpected dimension emerged: in-depth knowledge of the local area shared by the participants themselves.

> During one summer walk, eleven participants started, three fell behind, and one person took it upon themselves to wait and support them. That kind of mutual support and respect for individual pace was a major achievement that shouldn't be taken for granted. (Coord)

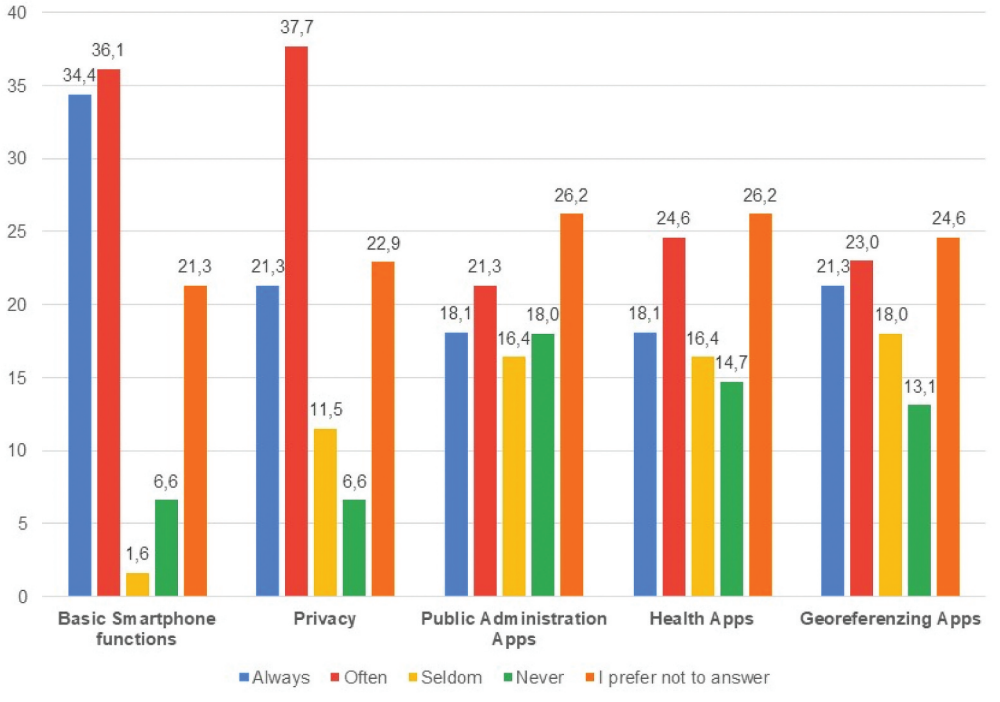

Figure 3. Frequency of digital devices and apps use after the project.

Perceived usefulness of digital tools was very high: 56.9% rated them as 'very high' and 36.2% as 'fairly high'. Among participants who already knew the apps, 94.8% gave these ratings, as did 92.9% of those who were previously unfamiliar with them.

Expectations regarding the future usefulness of acquired digital skills were also positive: 'fairly high' for 57.6% and 'very high' for 30.5%. The same proportions (57.6% and 30.5%, respectively) expected to use digital tools 'very much' or 'a lot' in the future.

Discussion

The findings described above highlight several aspects that help to better understand the complexity of older adults' relationship with PA, LL, and ICT.

First, alongside a strong need for socialisation — which leads older adults not only to participate actively in initiatives aimed at fostering it, but also to autonomously promote and organise such initiatives when conditions allow — and a high awareness of the importance of maintaining an active lifestyle that includes structured PA, the results reveal a limited awareness among older adults of the opportunities offered by ICT. Consequently, there is a lower perceived need to learn about or use digital tools. This mismatch in perceived needs may help explain, at least in part, why the high enrolment in the project translated into consistent and substantial participation in the walking groups and nutrition workshops, but lower attendance in the digital literacy sessions.

The findings also confirm the high heterogeneity within the older adult population, as shown by the varied levels of access to, familiarity with, and use of ICT. Not all

participants had access to a digital device, and among those who did, many were familiar only with WhatsApp, while a smaller group also knew how to use basic public administration and healthcare apps. Notably, women reported the lowest levels of perceived digital autonomy, confirming that gender differences — as well as those related to age, education, and income — intersect with digital exclusion, resulting in a 'double jeopardy' where the challenges of digital access are compounded by broader socio-demographic inequalities (Huxhold et al., 2020). Conversely, higher levels of digital autonomy were reported by participants living with a partner and/or children, confirming the critical role of family relationships — particularly with children and grandchildren — in fostering digital engagement (Carlo & Buscicchio, 2023). This group also included the highest number of individuals already familiar with the apps presented during the project.

In addition to limited ICT knowledge and use, the project also uncovered the significant obsolescence of devices used by older adults (), which represents another important aspect of the broader phenomenon of the GDD related to their design (Zelenev, 2023) that continues to affect this population (Olsson et al., 2019; Sala et al., 2020), reinforcing the need to adopt a universal design approach (Kirwan et al., 2023).

Differences related to gender, age, and living conditions were also observed in the levels of PA and community engagement. These disparities appear to have influenced participation in the various components of the project, with greater engagement in walking groups compared to digital workshops, and they also influenced the outcomes achieved. Unsurprisingly, those who had some prior familiarity with ICT and encountered fewer difficulties in learning how to use digital tools reported the highest levels of perceived digital autonomy by the end of the project. They were also more likely to continue using the apps regularly and to perceive them as useful. Conversely, those with no prior experience demonstrated lower digital autonomy and were more likely to discontinue or reduce use of the apps after the project ended.

The results further suggest that the growing pressure to adopt digital technologies—driven by their increasing use by public and healthcare administrations for service delivery—may not motivate older adults to engage with them, but instead risk deepening their exclusion (Zelenev, 2023). More broadly, they highlight that digitalisation, like any technological introduction, is embedded within a network of social relationships that both shape and are shaped by it.

These findings confirm the challenges of delivering effective ICT training for older adults and underscore the need for educational strategies tailored to their skills, attitudes, and motivations, as highlighted in prior research. They reaffirm the value of personalised approaches that combine individualised support with opportunities for peer interaction and socialisation, and that present content perceived as relevant and enjoyable. The improvements in social and community engagement reported by the majority, and the numerous self-organised gatherings spontaneously emerging alongside project activities illustrate the central role of socialisation for participants—a need largely met by the project.

These findings offer further support for the effectiveness of integrated approaches that combine ICT training, PA, and community participation, in order to address the diverse interests and motivations of older adults. In accordance with many studies (Blažič & Blažič, 2019; Creighton et al., 2022; Garcia et al., 2021; Jenkins, 2011), research shows that

older adults are more likely to engage in digital trainings and PA when supported by family members, friends, acquaintances, and healthcare and ICT professionals, and when the activities are enjoyable.

Equally significant was the willingness of some older adults to take on facilitation roles in certain workshops, which challenges the still-pervasive stereotype of older people confirming their resources as suggests by the ABCD approach. Also notable was the willingness of more digitally competent older adults to support their peers with greater difficulties, confirming their resources, and effectiveness of involving them as peer educators in ICT learning pathways, as emphasised in literature.

Limitations

This study has several limitations. First, the absence of validated scales for key dimensions such as physical activity, digital autonomy, and social participation led to the use of Likert-type items based on subjective perceptions, limiting comparability with other studies. Second, the relatively small sample size restricts the representativeness of the findings, partly due to the reserved nature of rural mountain populations and older adults' distrust of unfamiliar institutions. Limited digital autonomy among a substantial proportion of participants may also have hindered independent questionnaire completion, contributing to a high number of 'prefer not to answer' responses. Finally, given the size and characteristics of the sample, the analysis was limited to selected cross-tabulations, without inferential statistical testing.

Conclusion

The analysis of the project yields several significant implications for social work practice, particularly in relation to the promotion of active ageing. Social work is called upon to take a proactive role in fostering an integrated and community-based approach that places older adults at the centre of intervention — acknowledging not only their vulnerabilities but also their capacities and resources, as well as the network of family and community relationships in which they are embedded.

Several studies referenced in the introduction have emphasised that health promotion and digital training initiatives focused solely on the individual dimension of ageing tend to be less effective and struggle to engage the target population. When older adults are portrayed exclusively as passive, technologically inept, or socially disengaged, interventions risk reinforcing exclusion rather than promoting empowerment and participation.

The ABCD approach adopted in this project represents a meaningful alternative. By aiming to discover, connect, and productively mobilise local resources while integrating training, health promotion, and digital literacy, it offers a framework that aligns closely with the principles and methods of social work. They both recognise the intrinsic value and potential of every individual and every local community, including those traditionally seen as vulnerable or peripheral — such as older adults and residents of mountain or rural areas.

As evidenced by the project outcomes, such an approach can capture the interest and engagement of a broad and diverse segment of the older population. When older adults are meaningfully involved, whether as peer educators, co-designers, or

facilitators—when local community assets are valued and mobilised, and when content and activities are perceived by participants as relevant and beneficial to their everyday lives, participation becomes more consistent, motivated, and transformative.

Social work can contribute to scaling and disseminating this approach by acting on multiple levels.

At the level of public administration, through advocacy efforts aimed at increasing policymakers' awareness of the value of integrated, community-based initiatives and securing adequate funding for them. Social workers can also advocate for improved infrastructure, including broader internet coverage in rural and remote areas, greater access to ICT for older adults, the removal of mobility barriers (which continue to affect many urban and rural environments), and enhanced accessibility and usability of public spaces to support safe PA for older adults.

At the level of adult education providers, by promoting co-design processes that involve older adults directly in the planning of educational programmes. This increases the alignment between training content and learners' actual interests and needs. Social work can also support the adoption of more interactive, flexible, and personalised teaching methods — less frontal and more learner-centred — accompanied by tutors or facilitators able to address both the lack of digital competence and the physical limitations that can hinder learning and mobility. Educational practices should also foster enjoyment and social interaction, which are confirmed by research as central motivational drivers for older adult learning.

At the level of public discourse, by challenging ageist stereotypes and promoting a more nuanced and realistic image of older adults-one that reflects their diversity, competencies, and potential for active contribution. Social workers can play a role in raising awareness about both the risks and opportunities associated with digitalisation, which affect not only older adults but all age groups. They can also advocate for intergenerational learning models that foster social connectedness not only among older adults but also between older and younger generations, thus contributing to greater social cohesion and mutual understanding.

In sum, social work is well positioned to lead and support the development of inclusive, community-oriented, and empowering interventions that promote active ageing and digital inclusion — provided it fully embraces the complexity of older people's lived experiences and actively engages them as co-protagonists of change.

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