

A Comprehensive Synthesis of the Diginet COST Action Findings Across Working Groups 1–5

Digitalization and social inequalities (WG1)

The research from Working Group 1 (WG1) centers on how digitalization shapes social inequalities within the labor market, with a specific emphasis on age-related disparities. As digital technologies transform workplaces, they create both opportunities and barriers, particularly for older workers. This inequality manifests in digital access, skills, and adaptability, with older workers facing significantly lower rates of internet use, digital engagement, and technological adaptability compared to younger colleagues. For instance, countries like Iceland and the UK report relatively high digital connectivity for older workers, whereas nations like Hungary and Slovakia exhibit pronounced gaps.

The degree of digital connectivity profoundly affects labor market participation and adaptability. WG1's findings indicate that older workers often lack the technological tools and skills necessary to stay competitive, which can lead to further marginalization. Additionally, within the older workforce, certain subgroups—such as older women and those with lower educational attainment—are even more vulnerable, facing compounded barriers in accessing and utilizing digital resources. In some cases, these inequalities extend beyond mere access, affecting digital proficiency and comfort with technological tools, thus amplifying barriers to career progression.

The working group further examined the impact of digitalization on job security and social dynamics at work. Many older workers perceive digital technology as a threat to their job stability, with new technology sometimes being associated with a reduction in productivity or a greater likelihood of job displacement. This insecurity is exacerbated by the fact that technological roles are often skewed towards younger workers, leading to the perception of age-based bias in hiring and advancement. Mentorship programs that promote intergenerational learning and knowledge transfer show promise in reducing these barriers, fostering both technical skill development and workplace cohesion among employees of different ages.

Digitalization and organizational culture (WG2)

Working Group 2 (WG2) addresses the responses of businesses to an aging workforce within a digitalized economy. The group highlights the dual challenge that businesses face: adapting HR practices to meet digital demands while also accommodating an aging labor force. Across 33 countries, the group explores strategies that companies have implemented to bridge the digital divide and support older employees' engagement and productivity.

Among the key initiatives are seminar series and scoping reviews, which have enabled organizations to assess HR practices aimed at enhancing older workers' digital competencies. Monthly seminars provide an open forum for businesses, researchers, and policymakers to discuss age-related digital challenges, enabling early-career researchers to engage in meaningful dialogue on issues such as age discrimination, job transition, and productivity improvements.

Country-specific profiles revealed that certain nations are more proactive in addressing age-related digital divides. For instance, the UK and Sweden have implemented inclusive HR policies that encourage lifelong learning, whereas countries like Albania and North Macedonia still face significant challenges related to basic digital infrastructure. WG2's findings underline the need for inclusive policies within organizations to sustain an aging workforce. Supportive HR interventions, such as flexible work schedules, targeted training programs, and digital literacy initiatives, not only enhance productivity but also promote social inclusion by enabling older workers to stay competitive in an increasingly digital labor market.

The role of intergenerational knowledge transfer is also emphasized, with businesses increasingly fostering environments where younger employees can support their older counterparts in developing digital skills. Such interactions not only benefit individual workers but also create a more cohesive and adaptive workplace culture that can respond flexibly to technological shifts.

Health impacts of digitalization (WG3)

The focus of Working Group 3 (WG3) is on the health implications of digitalization for older workers, addressing both physical and mental health concerns. Digitalization, while often enhancing work efficiency, can also introduce significant health challenges, such as technostress and ergonomic issues that disproportionately affect older employees.

Technostress, which stems from the rapid pace of technological change, poses a particular challenge. Older workers often experience anxiety, fatigue, and frustration when required to adapt to new digital tools, which can lead to reduced job satisfaction and well-being.

WG3's scoping reviews reveal that digitalization impacts older workers' health in multifaceted ways, influencing work-life balance, family dynamics, and mental health.

Positive health outcomes are also noted, as digitalization can reduce physical workload and enable remote work, offering flexibility that benefits older employees. However, these benefits often hinge on the workers' digital competencies. Without proper support, digitalization risks exacerbating health disparities by placing older workers in a cycle of increased stress and job insecurity.

In response, WG3 recommends targeted HR interventions that focus on reducing technostress and creating supportive work environments. These include access to digital literacy programs, mentorship opportunities, and accessible digital tools that cater to older employees' specific needs. By focusing on health and well-being, WG3 emphasizes the importance of a holistic approach to digital transformation, one that safeguards older workers' mental and physical health while ensuring their continued productivity and engagement.

Digitalization and public policy for older workers (WG4)

Working Group 4 (WG4) synthesizes public policy approaches across Europe to support the inclusion of older workers in a digitalized economy. The group reviews national strategies from countries such as Estonia, Denmark, and Finland, which are at the forefront of integrating older workers into digital society. Estonia, for instance, emphasizes digital literacy and public service access, ensuring that older citizens are equipped to navigate digital tools. Similarly, Denmark promotes intergenerational cooperation and lifelong learning as essential components of workforce adaptability.

WG4's report underscores that while many countries acknowledge the challenges older workers face, policy responses vary widely. Countries like Albania and Czechia are still developing comprehensive digitalization strategies, whereas nations like Ireland and Greece focus on promoting digital skills and accessibility more broadly. Policies across Europe highlight lifelong learning, targeted digital skills training, and age-friendly working conditions as essential to ensuring that older workers remain active contributors to the workforce. However, the report notes that in several countries, training programs may be disproportionately geared towards younger workers, inadvertently reinforcing digital divides. The synthesis of national strategies also emphasizes the need for policies that address the specific challenges faced by older workers. Initiatives such as Ireland's "Digital Skills for All" and Slovakia's "Don't lose your job, get educated" aim to improve digital literacy among underrepresented groups, including older workers. The report advocates for context-specific policies that consider the unique demographic, economic, and social factors of each country, ensuring a tailored approach to digital inclusion that aligns with local needs.

Status and future plans of WG5

WG5, the most recently established working group, had its inaugural face-to-face meeting in Dublin in September 2024. The group is currently focused on contributing to the upcoming anthology to be published by Springer, which will compile key insights from across all working groups. WG5 is working on common publications and has developed a framework for preparing country reports. Based on these reports, a comprehensive synthesis on media and digitalization will be completed by October 2025. WG5's work represents a collaborative effort to deepen understanding of digital media's impact on older workers, ensuring an interdisciplinary and participatory approach within the network.

Overall conclusions and recommendations

Across the working groups, several overarching themes emerge:

1. *Digital access and literacy*: A consistent finding is that older workers are at a disadvantage regarding digital access and literacy. While digital tools provide significant benefits, such as flexible work arrangements and reduced physical strain, they can also act as barriers to employment for those without adequate digital skills. Initiatives like Estonia's nationwide digital literacy programs and Denmark's intergenerational training schemes show the potential of targeted efforts to close the digital divide.
2. *Health and well-being*: Digitalization's impact on health is a prominent theme. Technostress, mental fatigue, and ergonomic concerns associated with digital tools can disproportionately affect older workers, diminishing their quality of life and reducing job satisfaction. HR interventions that focus on reducing stress and enhancing digital competencies can mitigate these challenges, providing a more inclusive work environment for older employees.
3. *Workplace adaptability and inclusion*: A central recommendation is the promotion of intergenerational knowledge sharing and supportive workplace cultures. Programs that facilitate mentorship and lifelong learning not only improve digital competencies but also foster a sense of community and respect within organizations, helping older workers feel valued and supported.

4. *Policy and structural support:* There is a strong need for national policies that support digital literacy and inclusion for older workers. Policies that prioritize lifelong learning, as seen in Finland and Luxembourg, are essential for preparing older workers for a rapidly digitalizing world. Furthermore, country-specific challenges—such as infrastructure gaps in Albania or the economic pressures in Greece—highlight the need for customized approaches to digital transformation that can address local barriers to inclusion.
5. *Future directions:* The work of the Dignet COST Action points to the importance of ongoing cross-national research and collaboration. Future efforts should continue to monitor the impact of digitalization on older workers, focusing on best practices for digital inclusion and expanding policy frameworks to accommodate older employees' evolving needs.

In conclusion, the findings across the four working groups emphasize that digital transformation, when managed inclusively, can benefit older workers by enhancing their productivity, flexibility, and engagement in the workforce. However, without targeted interventions and supportive policies, digitalization risks exacerbating social inequalities and marginalizing older employees. The Dignet COST Action initiative highlights the need for a comprehensive and collaborative approach to digital inclusion, with tailored solutions that empower older workers to thrive in an increasingly digitalized world.

Future plans for the next two years of the Dignet COST Action

Over the next two years, the Dignet COST Action will continue to build on these findings. Key objectives include completing the anthology publication, expanding the synthesis of media and digitalization, and enhancing collaborative research across working groups. Future initiatives will also focus on strengthening interdisciplinary partnerships, promoting best practices in digital literacy and workplace inclusion, and furthering engagement with policymakers. By fostering cross-national dialogue, the Dignet COST Action aims to ensure that digitalization contributes to an equitable and inclusive labor market for older workers, addressing social and economic inequalities in a rapidly changing digital landscape.