

Governance, Social Policy and Communication

Future Directions for Gerontechnology: Views of the ISG2026 International Scientific Program Advisory Committee W. Kearns, A. Hanson, R. Alqasemi, Y. Afacan, T. Bock, J. Boger, D. Bouwhuis, C. Khasnabis, T. Lee, D. Meng, B. Mortenson, W. Shim & Y. Zheng. *Gerontechnology* 25(s)

Purpose: The International Scientific Program Advisory Committee (ISPAC) for ISG's 2026 World Conference in Vancouver has among its responsibilities the charge of providing insights on the future of Gerontechnology development and potential ethical challenges concerning the use of these technologies across formal and informal care settings. **Method:** In May 2025, the 12 inaugural members of ISPAC were sent three thought questions in an email; the first question concerned where they personally saw significant developments occurring in Gerontechnology in the near future. Question two dealt with ethical challenges and concerns that may arise due to the introduction of the new technologies, or policy issues that might likely occur as the new technologies would be introduced into existing care systems. The third question provided ISPAC respondents free reign to consider what they deemed pressing issues in Gerontechnology. Responses were anonymized and reflexively thematically analyzed (1) by a qualitative researcher (A.H.) and distributed to all ISPAC members. **Results and Discussion:** Question 1 responses revealed that artificial intelligence and sensor development would play major roles in future Gerontechnologies, as would personalized technologies. A pre- and post-illness solution approach ensures the development of appropriate technology to 'stage of life' needs when designing for both the assistive specialty and mainstream consumer goods markets. 'Soft' assistive technology and UX-focused design is critical to incorporate end-user challenges, needs during, and quality of life during the ageing process. Question 2 identified five 'ethical' data issues: the use of algorithms, development biases, digital equity, privacy/surveillance/security, and governance systems/regulation. Development bias in product development requires rethinking norming standards, which may contribute to lack of utilisation by end-users. Governance systems and stronger regulatory approaches may be possible solutions to privacy and surveillance concerns. Also, effectiveness studies with a focus on user needs and capacity to ensure devices and tech are working appropriately for the older adult end-user were encouraged. Question 3 reiterated many of the issues in Question 1. However, new content indicated Gerontechnology needs to reframe itself to meet both the convergent and unique expectations across three sectors: **society, industry, and policy**. Consumer needs should actively drive the Gerontechnology market, public policy, as well as the research/academic field of Gerontechnology. Design considerations should be scalable, accessible, and user-centred, using a developmental or stage of life design. Gerontechnology should be seen as an emerging industry with accessible, available, and affordable products, moving away from an 'assistive' industry to an 'empowering' industry. From a policy frame, the creation of formal guidelines/benchmarks would ensure gerontechnology strikes the balance between innovation and meeting consumer needs (quality of devices, health, and well-being). The literature supports this approach (2-4). Hence, the need for gerontechnology to reframe itself by integrating convergent strategies (across academia, industry, and government) while also addressing unique sectoral demands in society, industry, and policy. This panel will delve deeper into these emerging themes and other critical dimensions shaping the future of gerontechnology. We invite attendees to join the dialogue on advancing integration of gerontechnology into research, practice, and policy to ensure accessible, life-stage-responsive technologies for the decade ahead.

References

1. Braun V, Clarke V. Thematic analysis: A practical guide: Sage; 2022.
2. Huang G, Oteng SA. Gerontechnology for better elderly care and life quality: a systematic literature review. *Eur J Ageing*. 2023;20(1):27.
3. Arieli R, Faulhaber ME, Bishop AJ. Bridging the digital divide: Smart aging in place and the future of gerontechnology. In: Ferdous F, Roberts E, editors. (Re)designing the continuum of care for older adults: The future of long-term care settings: Springer Nature Switzerland AG; 2023. p. 3–19.
4. Bronswijk JEMH, Bouma H, Fozard JL, Kearns WD, Davison GC, Tuan P-C. Defining gerontechnology for R&D purposes. *Gerontechnology*. 2009;8(1):3-10.

Keywords: trends analysis; thematic analysis; gerontechnology; stage of life design; accessible technologies

Affiliation: University of South Florida, Tampa Florida, USA

Email: Kearns@usf.edu