Looking back at looking to the future: Revisiting the 1983 NATO symposium on aging and technological advances

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Purpose In 1983, The NATO Special Programme Panel on Human Factors sponsored a symposium on Aging and Technological Advances at University of Southern California's Andres Gerontology Center. Over 100 participants from 15 countries and from a number of scientific disciplines participated in the 5-day conference. The charge of the conference was to examine the promises and hazards of technological advances for the aged. Underlying the discussions was the value assumptions about the importance for the aged of independence, integration in society, interpersonal contact, opportunities to contribute to society, control over one's environment, self-esteem, and the quality and length of life. The theme of good and bad consequences of technological advances from the perspective of impact on the aged emerged continually during the symposium and was reflected in numerous papers in the published volume. A second charge to participants was to recognize the diversity of the older populations under study. The impact of technological advances on the aged varies between the more and less developed regions, among nations, and between urban and rural areas within nations. Furthermore, discussions covered a wide age span from workers in their 40s and 50s to the very old. **Method** The conference produced a 457-page volume and using systematic review we compare the major themes and predictions with where research and applications in gerontechnology have arrived today. The authors reviewed each of the presentations in the context of the four domains of human activity and interventions of gerontechnology to characterize the visioning. We emphasize the most interesting predictions and the most egregious. **Results and Discussion** Employment trends, training and retraining, quality of work, policy, and implications for caregiving and services were addressed among other topics. In 1984 a major concern was the growing number of older persons who would be vulnerable to technological change. At the same time, it was realized that the quality of life can be enhanced by technology. Cumulative disadvantage from inadequate education, healthcare, and quality of work were anticipated, however the digital divide and cultural differences in adoption are far more heterogenous than imagined. The importance of universal design and approaches should have overcome these barriers, however, they have been clearly missing without great adoption of gerontechnology principles. There was an anticipation of working at home to allow continued employment which only during the COVID-19 pandemic manifested its full potential. And similar impacts from self-driving vehicles have been anticipated in recent years, but haven't been realized, and were even envisioned at the conference. At the time of this conference people were retiring early. Questions emerged about policy creation related to requiring longer working lives for full social security, or encouraging earlier retirement and what those trends might be in coming decades. There was a great deal of attention to whether technology would enhance the quality of work or deskill and make jobs less engaging. In the area of word processing, where advances were just beginning, concerns such as ability to spell and typing speed were at the forefront. The nature of live blogging, AI authored reporting and news generation, and social media where not envisioned.Overall, a major outcome focused on the intersection of two major changes in the world, the accelerating pace of technological advances and the accelerating growth of older populations. Conclusions and present observations of approaches to competence and dyscompetence provide a novel approach and perspective.

References

Robinson, P. K., Livingston, J., & Birren, J. E. (Eds.). (2012). *Aging and technological advances* (Vol. 24). Springer Science & Business Media.

Sterns, H.L. and Sterns, A.A. Self-management of career and retirement; issues of competence and dyscompetence. Fideler, E. F. (Ed.). (2021). *The Rowman & Littlefield Handbook on Aging and Work*. Rowman & Littlefield.

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