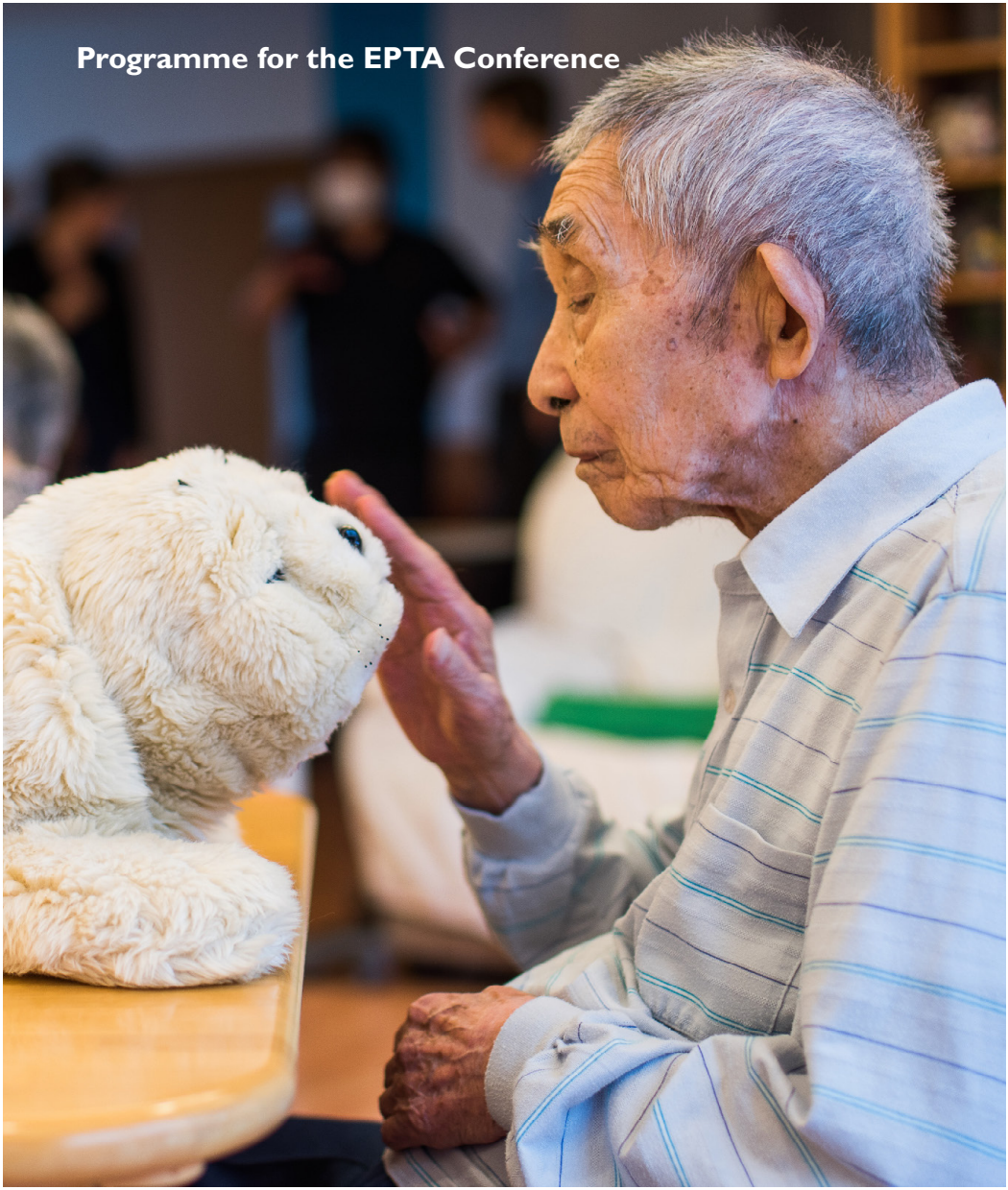
EPTA
European Parliamentary Technology Assessment

SVERIGES RIKSDAG

Technologies in care for older people

Programme for the EPTA Conference



Programme

Time:	11 October 2019, 8:30 to 15:30
Venue:	Former First Chamber of the Swedish Parliament, Norrbro 1A, Riksplan, Stockholm
Participants:	Members of Parliament (MPs), staff/directors from EPTA members, experts and stakeholders from various organisations
Language:	English
Setup:	Each session will consist of keynote speeches followed by comments from panels consisting of Members of Parliament, and further comments from the audience.

8:30–9:30	Registration and coffee
9:30–9:40	Welcome by **Lotta Johnsson Fornarve,** Second Deputy Speaker of the Swedish Parliament
9:40–9:45	Welcome address by **Thomas Larue,** director of ERS, Swedish Parliament
9:45–10:45	**Session I** – Technologies in elderly care – an international perspective. Chair: **Ulrike Bechtold** • **Tore Tennøe** NBT, Norway, **Maartje Niezen**, Rathenau, Netherlands. Presentation of the EPTA report – Technologies in care for older people – an overview of contributions from country reports • **Theo Karapiperis**, STOA, European Parliament. Challenges for e-health in Europe • **Chifuyu Hiyama,** RLRB, Japan, Technological innovation in tackling the challenges of a rapidly ageing population: public policy and issues related to nursing care robots in Japan • **Timothy M. Persons**, GAO, USA. The ABCDs of Innovation: How Emerging Disruptive Technologies are Impacting Work and Life in the United States

10:45–12:00 **Session II** – Technological and social innovations for active ageing. Chair: Melanie Peters

- Hilde Lovett, NBT, Norway. Artificial intelligence in care – opportunities and challenges
- Lena Rosenberg, KI, Sweden. Assumptions on technology use in the intersection of care services and everyday life of older people.
- Ulrike Bechtold, ITA, Austria. Active assisted living (AAL) for whom: getting the target group (or the technology) straight.
- Lef Apostolakis, POST, United Kingdom. Robotics in social care

➢ *Panel discussion with MPs'*

12:00–13:45 Lunch and photo exposition on robotics in elderly care from Japan and examples of robotics used in care in Sweden

13:45–15:00 **Session III** – Policy implications and future perspectives. Chair: Tore Tennøe

- Melanie Peters, Rathenau, Netherlands. Human rights in the robot age
- Britt Östlund, KTH, Sweden. Under the radar – what makes technology work in the care for older people?
- Barbro Westerholm, MP, the Swedish Parliament. Technologies and ethics
- Joakim Strand, MP, Chair of the Committee for the Future, Finland – Technologies in care for older people and the Future of Health Care

➢ *Panel discussion with MPs*

15:00–15:30 Farewell reception

Abstracts

Session I

Presentation of the EPTA report – Technologies in care for older people

Tore Tennøe, Director of the Norwegian Board of Technology and Maartje Niezen, Senior Researcher at the Rathenau Instituut, Netherlands

The presentation will give an overview of the topic based on 17 contributions from different European countries and regions, as well as the US, Mexico and Japan. The analysis covers both promises and challenges of new technologies for care and different policy initiatives, and shows how new solutions and best practices often involve social innovation. Tennøe and Niezen also offer future perspectives and policy implications of emerging technologies such as robotics and artificial intelligence.

Challenges for e-health in Europe

Theo Karapiperis, Head of Scientific Foresight Unit (STOA), European Parliamentary Research Service (EPRS), and Panel for the Future of Science and Technology (STOA), European Parliament

The presentation will first outline key trends, opportunities and challenges linked to the deployment of e-health in the EU, with an emphasis on elderly care. It will then describe the EU policy framework for e-health, including the eHealth Action Plan and actions supported by the Digital Agenda for Europe, the Innovation Union Flagship Initiative and the Digital Single Market Strategy, as well as projects funded under the Horizon 2020 Active Assisted Living programme. Time permitting, insights drawn from the STOA study on assistive technologies relevant to elderly care will also be presented.

Technological innovation in tackling the challenges of a rapidly ageing population: public policy and issues related to nursing care robots in Japan

Chifuyo Hiyama, Director of Science and Technology Research Office (STRO), Japan

Faced with a shortage of workers to provide nursing services, Japan's ageing society now looks to the development and popular acceptance of nursing-care robots as a key solution to serving the needs of the increasing number of elderly people who require long-term care. Here is a review of public policy related to nursing care robots in Japan and the issues that must be addressed in the future.

The ABCDs of Innovation: How Emerging Disruptive Technologies are Impacting Work and Life in the United States

Timothy M. Persons, Chief Scientist and Managing Director for Science, Technology Assessment, and Analytics (GAO), USA

Societies and economies worldwide are experiencing profound technology disruptions ranging from such things as data and analytics, automation and artificial intelligence and the emergence of 5G. These innovations are expected to fundamentally transform work as we know it and will play a key role in the lives of our ageing populations. In this talk, Dr Timothy Persons will provide updates on trends in the U.S. being forged by key emerging and emergent technologies – including a description of their overall opportunities, risks, and strategic implications.

Session II

Artificial Intelligence in care – opportunities and challenges

Hilde Lovett, Project Director of the Norwegian Board of Technology, Norway

Artificial Intelligence (AI) and Machine Learning have made powerful leaps forward in recent years and might profoundly impact the nature of elderly care in the years to come. One prominent example is dementia. Personal assistants can help people with dementia to remember, reason and organise their daily lives and give predictions for the development of their condition. While the cognitive abilities of people with dementia are decreasing in the course of their illness, the cognitive faculties of care technologies are steadily increasing with machine learning. However, the introduction of AI in care raises important questions concerning integrity, privacy and access to data.

Assumptions on technology use in the intersection of care services and everyday life of older people

Lena Rosenberg, PhD, Assistant Professor at the Division of Occupational Therapy, Karolinska Institutet

Our society holds huge expectations that technology will solve the challenges of future elderly care - but the development of such technologies often still lacks involvement from those concerned; staff in elderly care and the older people themselves. Typically, the focus is placed on the product, while the key aspects, i.e. the situation and context where the product will be used, are ignored. Lena Rosenberg has extensive experience in conducting research in the intersection of care services and the everyday life of older people. In her talk, she will draw on examples from home care as well as from nursing home contexts.

Active assisted living (AAL) for whom: getting the target group (or the technology) straight

Ulrike Bechtold, Senior Scientist at the Institute of Technology Assessment of the Austrian Academy of Sciences, Vienna, Austria

Talking of a "target group" creates the illusion that older adults form a more or less coherent group, determined by biographical age. However, the terms we use form the way we imagine, construct and frame our world. Technology is likely to replicate these assumptions. Therefore, Dr Bechtold would like to examine in what ways 1) the description of technology contrasts with user contexts and perceptions and 2) AAL market economy arguments are not conclusive when it comes to spreading AAL.

Robotics in social care

Lef Apostolakis, Communications Manager, Parliamentary Office of Science and Technology (POST) UK

Robotics could help improve the quality of UK social care and manage increasing pressures on services. Suggested uses range from utilising robotic vacuum cleaners to deploying humanoid robots for social assistance. While robotic solutions according to some estimates could save the UK up to £6

billion by automating some tasks, there are concerns around affordability, effects on the quality of care and staffing and legislation. Lef Apostolakis from POST will go over some of the current uses of robotics in social care, and explore the economic, ethical and regulatory challenges they present.

Session III

Human rights in the robot age

Melanie Peters, Director, Rathenau Instituut, Netherlands.

Smart devices surveying our lives. Artificial intelligence technologies steering our behaviour. Care robots hindering human contact. Does this sound terrifying? Inevitable? It does not have to be. Time for a wake-up call. The Rathenau Instituut demonstrates that these technologies can have a positive or a negative impact on human rights. Regarding these rights, we focus on issues relating to the right to respect private life, human dignity, ownership, safety and liability, freedom of expression and the prohibition of discrimination as well as access to justice and the right to a fair trial.

Under the radar – what makes technology work in the care of older people?

Britt Östlund, Professor, Royal Institute of Technology (KTH), Sweden

Despite huge investments in the care of older people, very few of the results meet the expectations of increased efficiency or quality of life. The result rather reveals what social, cultural and ethical aspects are crucial to how technology is received and perceived. New European research on best practices of interactive robots show that while the care sector has the potential to be successful in the use of robots, the sector is far behind other sectors. Why is this? What can we do to make new technology work in the care of older people? Britt Östlund has extensive experience in research and technology development in the care of older people. She is now a professor at KTH and works with digitisation and demographic change.

Technologies and ethics

Barbro Westerholm, Adjunct Professor Emerita and MP of the Swedish Parliament

Technologies can be of value for older people but they have to be evaluated in a similar way as medicines, i.e. the benefits should outweigh the risks. They should be user-friendly and cost-effective, and ethical considerations have to be taken into account. The individual should be well informed and have given his or her consent voluntarily. A trial period should be offered, and when needed, the possibility to meet the older person's needs with other alternatives should be considered. To conclude: we are facing technical advances in health care and elderly care. If we are to use them successfully, we have to take into consideration both technical and ethical challenges.

Technologies in care for older people and the future of health care

Joakim Strand, MP, Chair of the Committee for the Future, Finland. Technologies in Elderly Care and the Future of Health Care.

Finnish health care expenditure in 2017 amounted to almost 20.6 billion euros. In the aftermath of a series of exposed deficiencies in certain service homes, a lively public debate emerged last winter in Finland regarding the privatisation and quality of elderly care. According to the Government's new programme, a decision was taken to increase the number of nurses in healthcare for older people. The decision resulted in a demand for more than five thousand new caregivers and a cost of 256 million euros per year. Thus, the pressure to utilise the technological means to support the care of older people is not going to diminish in the foreseeable future. Even though the technological transformation will advance on a global level, it is possible to influence the pace, direction and consequences of change with regulations. Almost all new technologies involve some type of ethical issues and for this reason, ethics always should be a mandatory part of technology policy.

Form och produktion: Riksdagsförvaltningen, kommunikationsavdelningen. Omslagsfoto: Said Karlsson.
Tryck: Riksdagsförvaltningen, enheten riksdagstryck, Stockholm 2019.

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