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CENTRE FOR AGEING AND  
SUPPORTIVE ENVIRONMENTS

# GenerationTech – Ageing, Technology and Health from a Generational Perspective

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# Knowledge gaps – unique perspectives

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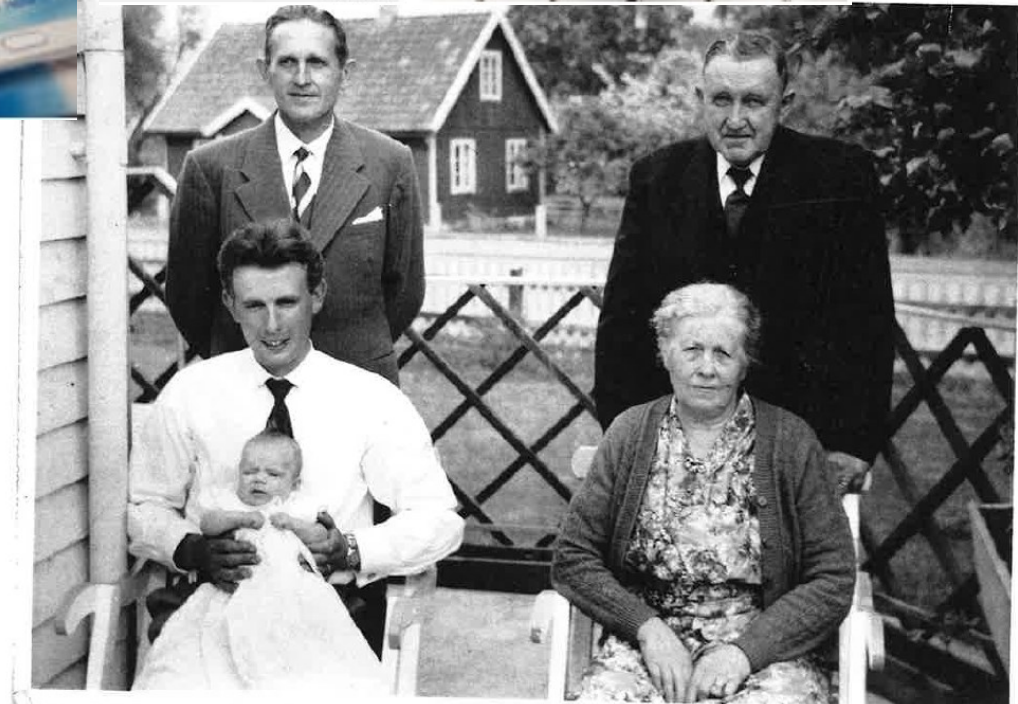
- Few studies about technology highlight older people's specific knowledge, experiences and needs
- Most studies focus solely on digital technologies (ICT), with no attention to the broad spectrum of technologies in everyday life
- Generational perspectives - different kinds of experiences hitherto not studied

# Generations of people and technology

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Cohort effects  
Period effects





## Technological Era at age between 10 and 25

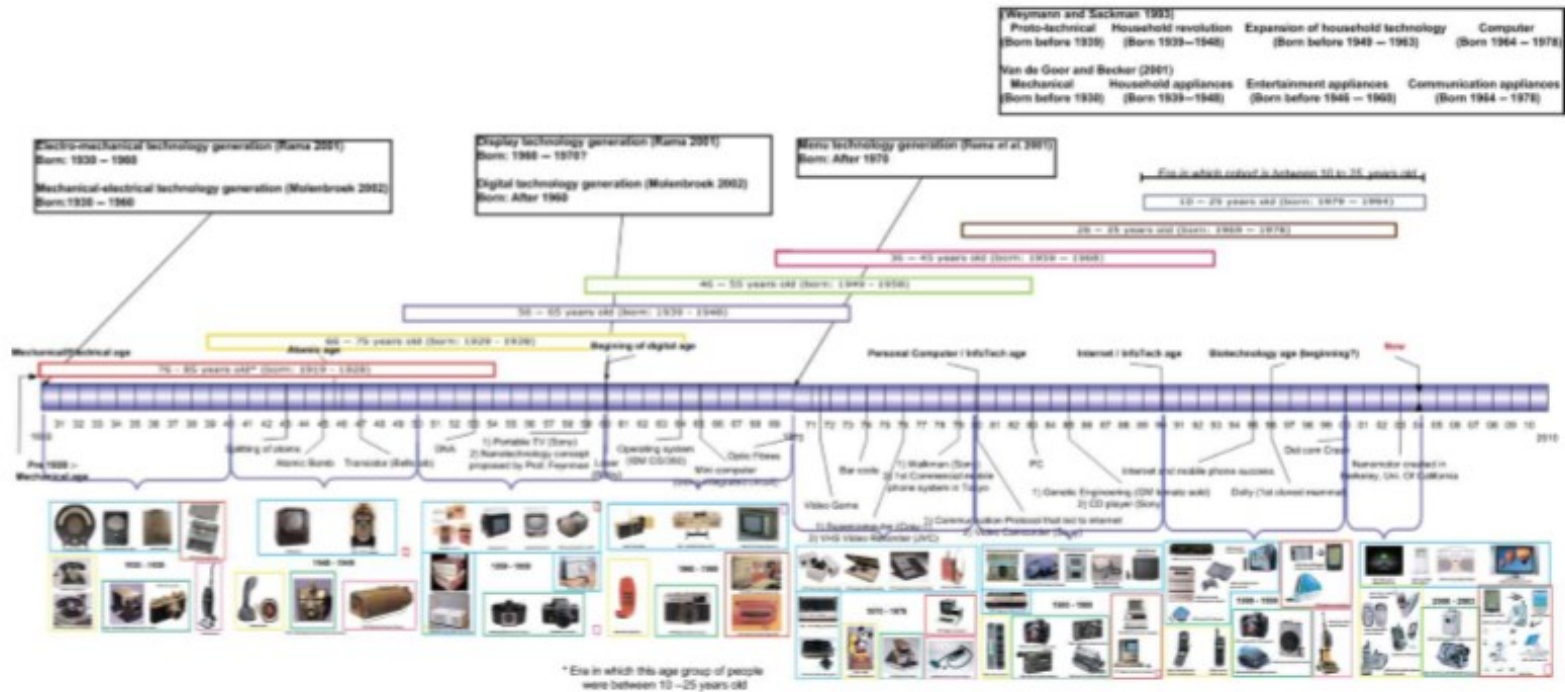


Figure 2. Redeveloped chart showing ICT products against the timeline with 'generation profiles' that clarified the span of types of technologies (M, EM, or DS) likely to have been experienced by people of certain ages. This timeline structure allowed a correlation between both their current age and likely prior usage of – and familiarity with – different product and interaction types during their formative age.

## Bodies of theory:

- Gerontechnology
- History of technology
- Learning
- Occupational therapy
- Cognitive science



A 1950-1959 VPC showing some ICT products belonging to that particular era.

# Knowledge gaps

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- Much focus on ICT, but what about other types of technologies – traditional and digital?
  - *everyday technology* (refrigerators, kitchenware, cars, new lightbulbs, TVs etc);
  - *information and communication technology* (smartphones, surf tablets, computers, etc);
  - *welfare technology* (safety alarms, night cameras, eHealth solutions etc. provided by the society);
  - *medical and assistive technology* (walkers, wheelchairs and communication aids, artificial body organs etc)
  - finally *branch-specific technology* (only mastered by professional specialists).

# The GenerationTech project

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The overarching aim is to generate new knowledge on:

- perceptions of and attitudes to different types of technology
- how these are associated with active and healthy ageing
- with specific attention to age cohort and period similarities and differences.

# Studies

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- I. Focus groups
  - 3 age-homogenous (30-39, 50-59, 70-79)
  - 3 age-mixed
- II. Web survey a) general; b) COVID-19 specific
- III. World Cafés in four EU countries; Sweden + Latvia, Germany, Italy

# Research questions

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- What types of technology and technology shifts do adults in different age cohorts define as influential on their everyday life through their course of life?
- What are the attitudes to different types of technology, their usefulness, ease of use and complexity, etc., among adults in different age cohorts?
- What types of technology experienced during their lifetime do they perceive as important for active and healthy ageing?
- What are the characteristics of adopting different types of new technology, in different adult age cohorts? (which products, when, at what age, how long did it take, positive and negative experiences)
- How do different age cohorts relate to the shortening lifespan of products and the challenges implied by the continuous technological advancement of products used in everyday life?
- Are there any gender differences related to these research questions? If so, of what character?



## “Am I representative (of my age)? No, I'm not”

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- Technologies enable as well as complicate everyday life
- Participants expressed trust as well as uncertainty about risks when using technology
- They stated that use of digital services is required while the support is limited
- They identified that technology development is inevitable but not always in the service of users

(Fristedt et al., under review)

**Technologies enable  
as well as  
complicate everyday  
life**

*Individual but also  
generational perspectives  
displayed*

*Interest for traditional rather  
than digital contact and  
challenges more pronounced*

*Strategies to deal with  
complications less pronounced  
with increasing age*

Facilitating and  
flexible products save  
time and give  
freedom

Technologies support  
health and security

Digital technology is  
challenging for the  
users

Dealing with short-  
lived and vulnerable  
technology

Digital services  
support and disrupt  
social interaction

**Trust and  
uncertainty about  
risks when using  
technology**

*Awareness and interpretation  
of risks varies individually,  
while the 30-39 year olds  
generally seem more trustful  
and the 70-79 year olds more  
affraid of risks than the other  
generations*

Trust that personal  
data is kept safe

Personal data utilised  
beyond my control

Being too dependent  
on technologies

**Use of digital  
services is required,  
but support is  
limited**

*General agreement on  
necessity and challenges to  
keep up, while the 50-59 and  
70-79 year olds expressed  
more concerns about groups  
struggling to keep up with  
digitalization and at risk of  
digital exclusion*

Expected to keep up  
with the development

Strategies to avoid  
exclusion

Inclusion through  
support and  
competence

**Technology  
development is  
inevitable, but not  
always in the service  
of users**

*The 50-59 and 70-79 year olds  
dominates discussions focusing  
largely on ethical perspectives  
in relation to technology  
development and future  
technology.*

Technology  
development is a  
natural process

Technology develops  
beyond users' needs  
and desires

Future technology  
evokes concerns  
combined with  
expectations

# Conclusion, focus group study

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- Experiences of and attitudes towards technologies and technology development are not limited to generation
- Perspectives sometimes unite individuals across rather than within generations
- Future technologies should consider individual user perspectives and needs beyond generations defined by chronological age
- Such strategies are likely to be more successful in supporting development of technologies usable for all

# GenerationTech Survey Study

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Age group	Gender; Total (Men/Women)	Ways of responding; Phone/online/postal
30-39	639 (316 / 323)	16 / 622 / 1
50-59	703 (345 / 358)	20 / 682 / 1
70-79	779 (420 / 359)	42 / 718 / 19
Total	2121 (1081/1040)	

Random population sample: Response rate 22%

(COVID-19 extension, Kantar SIFO webb panel: Response rate 33%)



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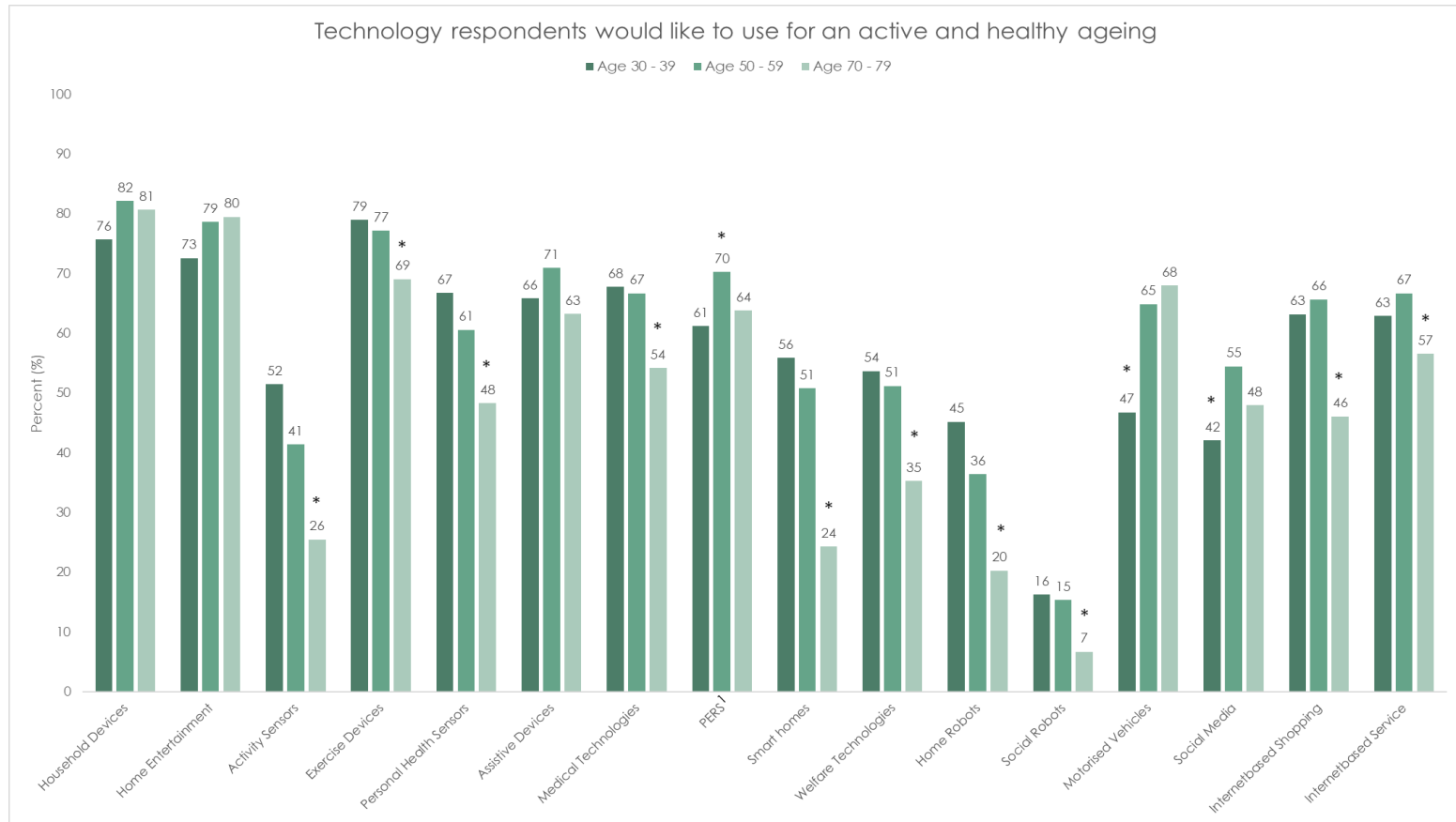
# Representativeness?

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The large sample resembles the Swedish population:

- The majority (78 %) had at least a high school degree (85 % in the general population)
- Close to half (49 %) compared to 42 % in the general population had a university degree
- Most were born in Sweden (90 %) and lived in a larger or major city ( $\approx 75\%$ ), which is in accordance with Statistics Sweden
- Different socio-economic classes and nationalities  
= a diverse sample

# Technology I would like to use for Active and Healthy Ageing

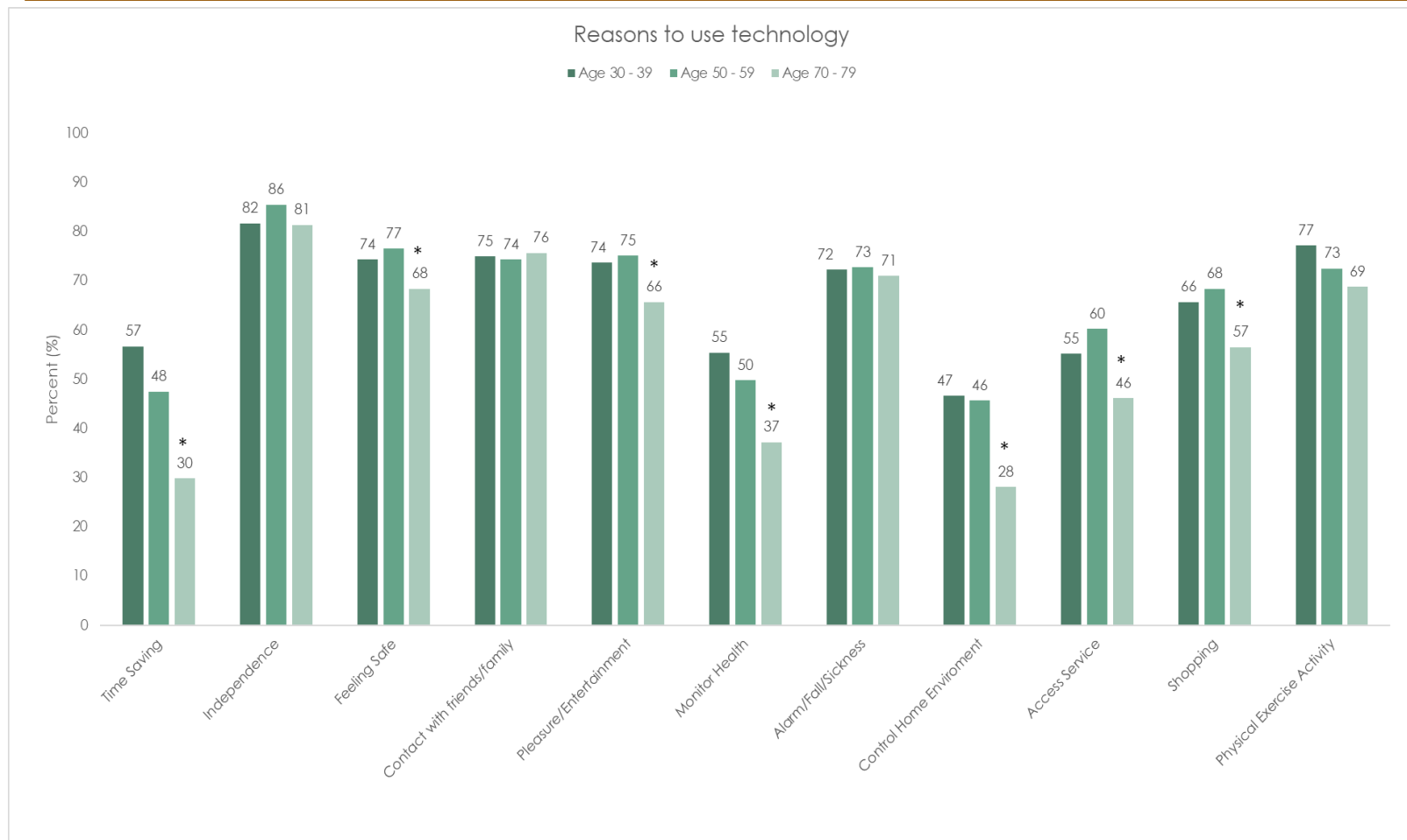


PERS = Personal Emergency Response System

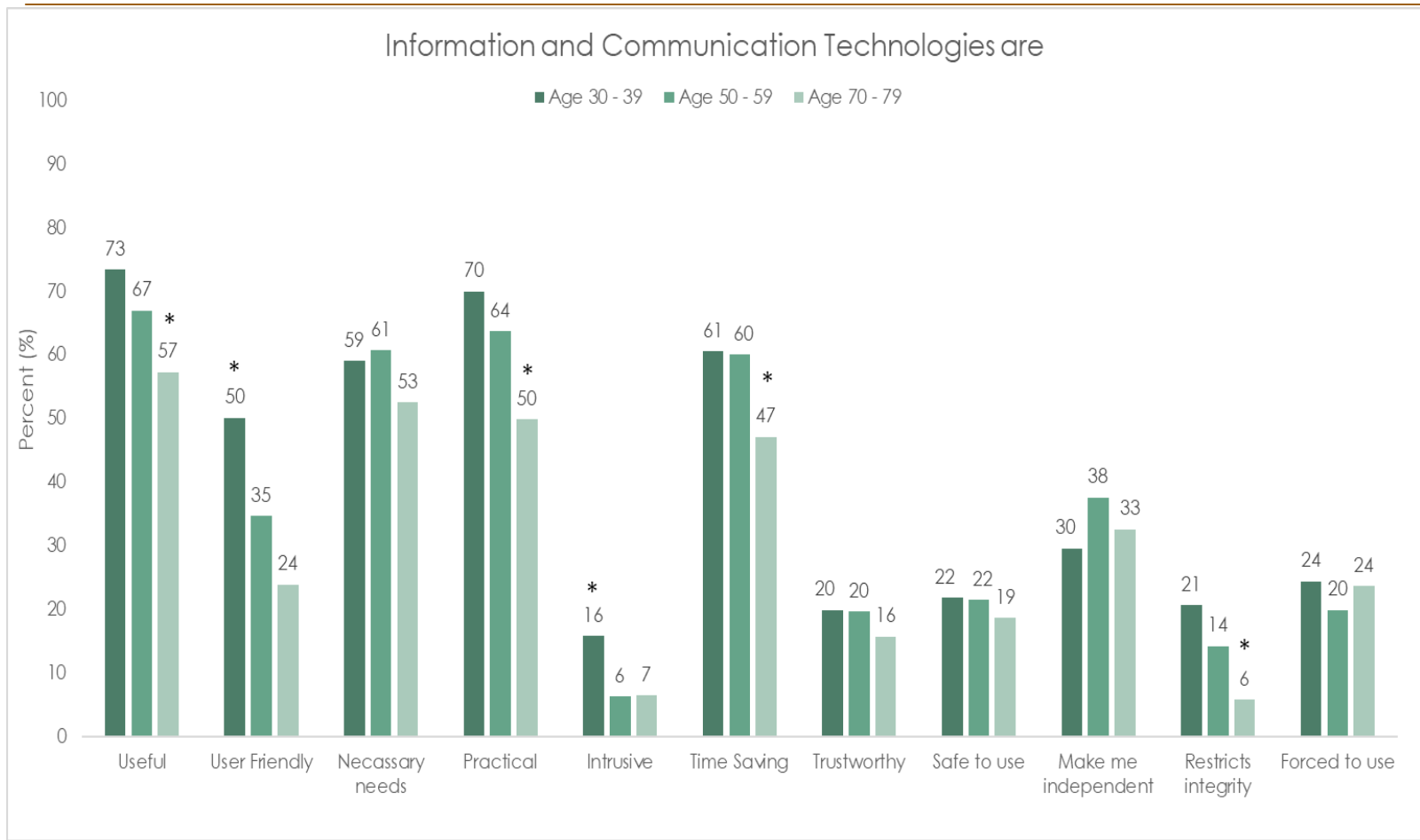
Offerman et al., in progress



# Reasons to use technology for Active and Healthy Ageing



# Attitudes to ICT



# Characteristics for technology adoption

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- Price, technology allowing flexible use and standard rather than extra functions matter when choosing new products
- The respondents thought they learnt new products easy and had no problems to keep up with technology development
- Environmental sustainability is important, especially for the oldest generation

# Survey Study Conclusions – Similar to focus group study

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- Perspectives are shared across generations rather than just within
- However, attitudes vary across generations as well, with significant differences regarding what kind of technology different generations would like to use to support active and healthy ageing as well as their reasons for using certain technology
- Contrary to previous literature, the three generations agree they learn technology easy and have no problem to keep up with the technical development

# Study III – World Cafés

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What are the reflections/opinions of older adults in different age cohorts, in Sweden and other EU countries, on the emerging findings from the project?

- Sweden x 3
- Latvia, Germany, Italy x 1 respectively

*COVID-19 is challenging our planning here.....*

# GenerationTechC19 - In the light of COVID-19 (N=3000)

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- Changes in ICT use? More than half, in all three generations, report increased use – highest proportion among people aged 70-79. Younger cohorts have a high use of ICT for shopping, but those 70-79 are mostly shopping IRL
- How is the usability of ICT perceived?
- Changes in attitudes to ICT?
- Characteristics for starting to use/accept digital technology...in the light of restrictions and recommendations related to COVID-19?
- Associations, perceptions, attitudes, age cohort and life satisfaction, experience of loneliness, social inclusion, participation and health?
- Gender differences?



# Take home message

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- Chronological age is not a denominator for attitudes to technology and technology acceptance
- Older people are not particularly concerned about learning new technologies
- Research from a generational perspective has the potential to deliver new knowledge to nurture strategies for learning and competence development regarding technology adoption and use among adults

# Hälsojournalen poddradio

Välkommen till Hälsojournalen - Hemmets Journals egen podcast som drivs av vår hälsoredaktör Malin Gavelin.

I podden träffar hon specialister inom en rad olika områden och ställer i lugnt tempo alla de där -  
...rat över. Allt från övervikt till inkontinens och hjärtinfarkt.



**Doro Sverige**

den 7 november 2017 · 🌐

Om seniorer som trappar upp surfandet och hur man lever ett aktivt långt liv har vi kunnat läsa om i tidningar de senaste veckorna. Den 17 oktober arrangerade vi på Doro en paneldiskussion på detta ämne. Missade du den får du ett smakprov här. Hela diskussionen kan du se via länken:

<https://youtu.be/psTM6EA9W6A>

#ÅlderÄrBaraEnSiffra #SeniorSanningar



Collaboration with  
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Dagny Carlsson at the age of 105 years (today 108) – the world's oldest blogger



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