Older people and technology

DaneAge: an online study about the attitude of older people towards different types of new technology.

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Outline:

1) The survey and the key results

2) Which were the most important conditions for the older citizens?

3) Which political conclusions are therefore important in relation to the older citizens?
The attitudes of older citizens to welfare technology
The background

• Uncovering a representative section of the attitudes towards new technology among people over 50 with access to the Internet (2/3 of all 60-74-year-olds)
• 1044 participated
• Weighted proportionally by gender, age and annual family income
• Internet-based questionnaires with illustrations and text explaining new technology
• Connection with age, gender, geography, position, family income, housing ownership, etc., analysed
7 technologies attitude- tested

- Robot vacuum cleaners
- "Patient briefcases"
- Sensor technologies
- Bathing machines
- Automatic toilets
- "Reminder machines"
- Robot pets for people with dementia – the robot seal “Paro”
- Plus: General attitude to the introduction of welfare technology and the role of relatives.
The result was “yes” to new technology, but on certain conditions....
Attitudes to selected technologies

- **Automatic toilet**
  - Very Good idea: 20%
  - Good idea: 30%
  - Neither a good or a bad idea: 10%
  - Bad idea: 10%
  - Very bad idea: 0%
  - Don't know: 30%

- **Reminder technology**
  - Very Good idea: 10%
  - Good idea: 20%
  - Neither a good or a bad idea: 30%
  - Bad idea: 30%
  - Very bad idea: 0%
  - Don't know: 10%

- **Sensortechology**
  - Very Good idea: 0%
  - Good idea: 10%
  - Neither a good or a bad idea: 40%
  - Bad idea: 30%
  - Very bad idea: 20%
  - Don't know: 0%

- **Robot vacuum cleaner**
  - Very Good idea: 0%
  - Good idea: 20%
  - Neither a good or a bad idea: 30%
  - Bad idea: 40%
  - Very bad idea: 10%
  - Don't know: 0%

- **Bathing machine**
  - Very Good idea: 20%
  - Good idea: 30%
  - Neither a good or a bad idea: 20%
  - Bad idea: 10%
  - Very bad idea: 10%
  - Don't know: 20%

- **Robot pets for people suffering from dementia**
  - Very Good idea: 10%
  - Good idea: 30%
  - Neither a good or a bad idea: 20%
  - Bad idea: 20%
  - Very bad idea: 10%
  - Don't know: 20%
For people suffering from a chronic disease, such as KOL (smokers’ lungs leading to breathing difficulties and provoking fear) an aid called the “patient briefcase” has been developed. The patient briefcase contains among other things sphygmomanometers and an inhalator which the patient can use him-/herself. There is also a computer with a video phone so that the patient can see his/her doctor to get advice and together decide if it is necessary to go to the hospital or see your doctor.

If you got a chronic disease, would you be interested in getting a “patient briefcase”?
Attitudes to the patient briefcase

- It will improve safety at home
- You will be able to check your health at home without going to the hospital
- Improved quality of life

- ”The patient briefcase saves time”
- ”It is an economic advantage to society”
Toilets are available which enable automatic washing and drying without help from home carers or relatives.

If you had problems using a toilet, what is your attitude to using such a toilet?
Attitudes to the automatic toilet

• A good idea as it eliminates the need for help from home carers or relatives after using the toilet
• The toilet ”considers modesty”

”Results in good hygiene”
Attitude to technology reminding the users about things to do, etc.

Anybody may need help remembering day-to-day actions, such as appointments, shopping, red-letter days, bus departure times, telephone numbers, addresses, names and numbers, but particularly people with dementia. Many people use aids such as small books and notes. A few people also utilise new technology and may use a Dictaphone or a small reminder machine which fits into a pocket.

Family members, carers or the user him-/herself will record a message, and the machine will remind the user about dental appointments, family visits, etc.

What is your attitude to technology which will remind you about things to do, birthdays and appointments?
Attitudes to ”reminder machines”

• Will make daily life easier
• Increase quality of life
Attitude to sensor technology

Sensor technology covers various types of sensors installed in a home. The house will monitor your health:
The monitor in the bathroom, the scales and a sphygmomanometer are connected to the network of the house so that you, your relatives and possibly the home carers will be informed of any irregularities. Sensors will register changed lifestyle, e.g. when you go to bed, take a bath, etc.
All of it remote-controlled: lights, doors, windows, ventilation, heating, etc.
Attitudes to sensor technology

- More men (77%) than women (65%) found that the installation of sensor technology is a very good or good idea.
- May increase safety at home
- May increase independence of for example home care and doctors
- May increase safety for relatives as they will be able to keep an eye on the well-being of their older relative.
Technology which may help us do basic cleaning tasks, such as vacuum cleaning, is among other things used when people are unable to manage the vacuum cleaning in their own home. A so-called robot vacuum cleaner may be started and can then vacuum almost on its own.

What is your attitude to the use of robot vacuum cleaners?
Attitudes to robot vacuum cleaners

• In particular respondents with a high household income found robot vacuum cleaners a good idea

• Good idea because:
  – You can vacuum as often as you wish
  – Less dependent on others for vacuum cleaning
  – For example: ”my back hurts when I use a vacuum cleaner, and a robot vacuum cleaner may prevent back pain”
  – ”Would give me time for other activities”

• Not a good idea because:
  – It does not clean properly
  – Against replacing people by machines or robots
    • ”Home not suited for it (too much furniture, too many rugs, etc.)."
Attitude to the idea of robot pets for people with dementia

A robot seal has been developed with the aim of entertaining and stimulating people with dementia. The seal has built-in sensors and reacts to sound, temperature and movements. It recognises voices and will react to its name. Studies have shown that the robot seal may improve everyday life for people with dementia, as they are happy to use the seal as a pet. Studies are being made with robot seals for people with dementia in several nursing homes.

What is your attitude to the idea of giving robot pets to people with dementia?
Attitudes to robot pets for people with dementia

• Improve quality of life for people with dementia
• Take strain off relatives and home carers
  – ”Offer safety and happiness to people with dementia”
  – ”Calming effect on people with dementia”
• Criticism:
  – Undignified for people with dementia to use a robot seal as a pet
  – You should not trick people with dementia into having a machine for company
  – Fear that it will reduce human contact to relatives and professional carers.
Attitude to bathing machine

Bathing machines have been developed to help you take a bath when you have problems managing on your own, but when you have only little need for assistance from for example home carers or relatives. If it becomes difficult for you to take a bath, what would be your attitude to using a bathing machine?
Attitudes to bathing machines

- **Positive:** Less need for assistance from for example home carers or relatives
  - "Enables you to be independent of others and manage on your own"
  - "Enables you to have a bath as often as and whenever you want it"

- **Critical:**
  - Would rather have a person than that machine help me
  - Fear that the machine will replace personal assistance and care from the home care system.
    - "takes up too much room"
    - "difficult to get into and out of"
What were the most important conditions for the older people?
The decisive difference..
The decisive difference..
Welfare technology must not replace human contact

Sp.10 What may motivate you to use new types of technology?

- It must not replace human contact: 78%
- Easy to use: 78%
- It must be affordable: 68%
- Help if it breaks: 62%
- Increased quality of life: 60%
- Proper instruction: 50%
- Knowledge about what happens to the collected data: 41%
- Discretion: 16%
- Something else: 3%
- Don't know: 0%
What should be done?
75% do not find it a good idea to replace the help they get with cleaning partly by new technology

Q24: Do you think it would be a good or a bad idea to replace the help you get with cleaning partly by new technology?

Base: Receives help with cleaning (728)

Gns.: 1,97
The political framework

• Make a clear statement and balance expectations – set up an ethics code for the principles behind the introduction of new technology and follow up on the code!
• The aim should above all be perceived improvement of quality of life for the individual user!
• Technology must not replace human contact – it should preferably increase the possibility of human contact!
• Any savings in time consumption should benefit the older people – make agreements etc. at the beginning of the process, management should take the lead!
• Beware of scoring in your own net with a one-sided labour-saving agenda!
• Prevent a technological A and B team (financially, educationally, etc.)
The political framework

- Users, relatives and staff must be involved at all stages of the technological development and implementation.
- Do not forget the possibilities in the community (for example relatives) and voluntary helpers – examples could be IT volunteers, Internet cafés, etc.
- New technology must not be compulsory, but an option for the individual person – respect that older people have different attitudes to new technology – better visitation!
- Provide information about new technology – local authorities should give more information about the possibilities and not limit the information to what the local authority can offer.
- New organisation of aid and care areas? Think outside the box.
The political framework

- Make demands regarding technology –
  - Tailor-made
  - Flexible
  - Beautiful design
  - Discreet
  - Simple and functional

- Technology must be safe: New demands for safer testing of new technology? Back-up systems.
- Need for central knowledge centre, test laboratory with user involvement. Coordination of projects.
- Training/supplementary training of staff – physiotherapists, ergo therapists, social and healthcare assistants support providers
Yes to new technology, but on a humane basis with care and presence