

Technology for the Elderly Program

Interview with Raymond Dahlberg

Stockholm, Sweden



Based on Gustav Klimt, Tree of Life, Stoclet Frieze, Lebensbaum, 1905

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Elder and Long Term Care

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About Raymond Dahlberg

From 2007 to 2013, Dr. Raymond Dahlberg worked as a research and development coordinator during the government program Technology for the Elderly. Today, he is a senior advisor at the Agency for Participation. Dr. Dahlberg is responsible for research issues and welfare technology. He is a certified occupational therapist from Västerbotten College of Health Sciences. He also holds a medical degree from the Karolinska Institute in Stockholm.



Introduction

What follows is an interview with Raymond Dahlberg about his former role in the Technology for the Elderly program.

The Technology for the Elderly program was an initiative by the Swedish government. The Swedish Institute of Assistive Technology coordinated the program. The aim was to support the development of products and services that can assist elderly people and their relatives in everyday life.

In 2007, the government launched the program, which ran for six years. One hundred projects received support from the Technology for the Elderly program. Technology for the Elderly distributed sixty six million Swedish kronor (about eight million US dollars) for the development of technology for the elderly. The projects took place all over the country.

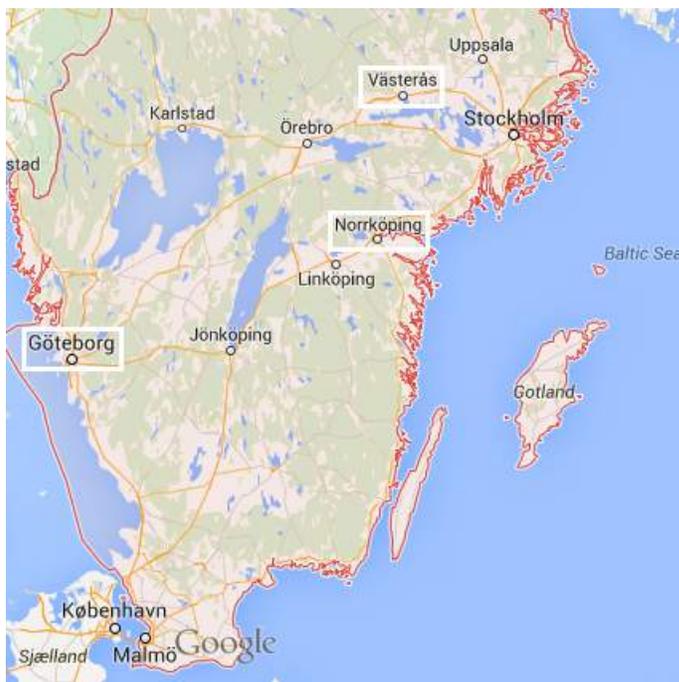
The government divided the Technology for the Elderly program into three fields. The first field was informal caregivers. The field included projects such as Caredo, a wireless homecare safety system, and Call Center for Relatives, a videophone support system for relatives. The second field was housing. This field contained projects such as Care IP, an alarm unit with a Global System for Mobile Communications (GSM) backup, and preventive training with outdoor equipment. The third field was information about and accessibility to good products. The field included projects such as the Doro phone, a mobile phone designed for the elderly.

Interview

Sofia Widen (SW): Can you tell us about your role in the program Technology for the Elderly?

Raymond Dahlberg (RD): I worked at the Institute of Assistive Technology as an occupational therapist. The Institute distributed funds to development projects in technology for the elderly. I wrote my doctoral thesis at the National Institute for Working Life. At the Institute of Assistive Technology, I reviewed applications for funding. I assessed their ideas and managed research and development projects. My research background aided my work. At the Institute, occupational therapists research the usability of technologies. This is different from economists who research the economics of the technologies.

My role in the Technology for the Elderly program was as a research and development coordinator. I will refer to this program as the Technology Program. During the second three year period, from 2010 to 2013, we decided to focus on larger technology projects. We wanted the twenty million Swedish kronor (approximately 2.5 million US dollars) that we distributed to have a noticeable impact. I coordinated the efforts in Gothenburg Municipality. My colleagues worked as project leaders in the other two larger funding sites, Västerås and Norrköping.



Map details the location of Gothenburg, Norrköping, and Västerås in Sweden.

SW: What projects were successful in Gothenburg?

RD: The project to establish showrooms of technology for the elderly was successful. The showrooms helped to illustrate the technology. The elderly looked at the new technologies. Staff members in homecare organizations came to see the new products.¹

The home adjustment projects in Gothenburg were successful. Most property companies in Gothenburg city are owned by the municipality. We demanded that different parts of the municipal administration coordinate efforts to obtain funding.

Senior Gothenburg includes the elder care organization of Gothenburg. Senior Gothenburg coordinated efforts with the municipal property companies to develop accessible housing for the elderly. The municipality showed leadership. At the time, the property companies were renovating bathrooms. They took the opportunity to construct accessible bathrooms during the renovation.

The bathrooms were too small and inaccessible for individuals in wheelchairs. Gothenburg focused on making bathrooms accessible to individuals who use walkers. Only two to three percent of the elderly and people with a disability use wheelchairs. Walkers are far more common in Sweden.

Gothenburg focused on accessible bathrooms and gathered expertise on the topic. In apartment buildings, the pipes and plumbing are often located near the doorframe. This arrangement prevents a broadening of the entrance to the bathroom. In Gothenburg, architects found a solution to this.

During the renovation, the contractors moved the pipes and plumbing. This allowed a broadening of the toilet doors. The property companies were able to make this change without incurring extra costs during the renovation. The property developers had already planned to renovate the bathrooms. During the renovation, builders moved the sink to create more space in the bathroom. Light bulbs were exchanged to create better light for the elderly. The bathtubs were exchanged for showers. The property company made numerous other changes to the bathrooms. Today, the bathrooms are accessible.

The property companies paid for the renovation. Staff from the Technology Program supported the project leader of the renovations and the architects in their collaboration with the property owners. I am proud of the work in Gothenburg. This was a successful project. Occupational therapists helped the property companies. The occupational therapists explained what the elderly need at home.

We involved the elderly from day one by approaching the senior organizations. The elderly told us how they want their bathrooms. Different parts of the municipality coordinated their work. This was a large project. I am proud of the coordination between senior organizations, builders, and the municipality.

SW: Was it difficult to create an atmosphere of collaboration?

RD: Initially, it was difficult. The various organizations seldom collaborate. Typically, home service organizations coordinate efforts with property companies. Technicians who work for the municipal housing branch seldom collaborate with the staff of the municipal home service organization. We provided funding to Gothenburg on the condition that individuals from the home service team collaborated with individuals from the housing department. The property companies wanted to collaborate on this project. It is a problem for the property companies when seniors move. Senior citizens are good tenants. They pay their rent on time and seldom cause trouble.

SW: What do the elderly want in their bathrooms?

RD: Typically, the elderly want a shower, not a bathtub. They want supporting handles. The elderly want a bright light. The elderly want accessible bathrooms to manage their daily activities. Some of the elderly want a higher toilet seat. When property companies update toilets they can install higher toilet seats. This helps the elderly.

SW: What challenges and possibilities are new property developments facing?

RD: New developments are not problematic. Regulations stipulate that bathrooms in new houses must be accessible. We have legislated to create accessible bathrooms. We can never meet the demand for accessible bathrooms with new construction. We must also adjust old bathrooms. There were no

regulations requiring accessible bathrooms in the 1940s, so we must work with the existing housing stock to care for an aging population.

SW: Can you comment on the situation elsewhere in Sweden?

RD: I cannot tell you exactly what the situation looks like elsewhere. I believe that many houses have small and inaccessible bathrooms. This is a problem.

Other municipalities looked at the projects in Gothenburg and wanted to assess the accessibility of the apartments. We provided funding for organizations to develop tools to assess the accessibility of kitchens, bathrooms, and houses. Many public property companies wanted to assess their apartments.

Municipalities wanted to label apartments according to their accessibility. The long term objective is to provide accessible housing to those who need it. Gothenburg marks an accessible housing with a T-mark, since T is the first letter in the Swedish word for accessible.² Different municipalities use different symbols to flag accessible apartments. When people search for a new apartment, they can look for this mark.

Unfortunately, the elderly are not always given the accessible apartments. Some municipalities allocate the accessible apartments to young people. We need to adjust the allocation of apartments. We need brave politicians who implement a system to allocate accessible apartments to the elderly.

SW: It seems to me that it would be advantageous to offer ground floor apartments to the elderly when few other people want to live on the ground floor.

RD: Yes, we need to encourage property companies to give apartments on the ground floor to the elderly. In this way, the elderly do not need to climb stairs. It is difficult to steer the allocation of apartments. An older person who is looking for a new apartment can request an accessible apartment. The T-mark can improve the chances that an elderly person is able to obtain an accessible apartment.

SW: What would you do differently if you were running Technology for the Elderly in another country?

RD: There were many successful projects during the program. I would allocate funding to a few larger sites and focus on larger projects. During the first part of the Technology Program, we allocated many smaller grants of three hundred thousand Swedish kronor to many municipalities (approximately thirty six thousand US dollars). We hoped that the municipalities would become interested in technology once we sponsored one project. This proved to be an unsuccessful strategy.

The three cities that obtained substantial funding succeeded. We sponsored 130 projects. Few small projects survived. Västerås, Norrköping, and Gothenburg were very successful. Västerås and Gothenburg were successful thanks to substantial funding. Västerås and Gothenburg had several advantages over other municipalities. These municipalities had skilled leaders who motivated to implement welfare technologies. These municipalities matched our grants with regional funding.

The projects in Norrköping stimulated a discussion about the Law of Housing Adjustment.³ Today, property owners are unable to apply for funding from the government of Sweden to make housing more accessible. Only individuals can apply for funding. We want to change this law. We want property owners to be able to apply for funding to renovate their buildings to be more accessible for the elderly and individuals with disabilities.

This amendment to the law will allow changes to benefit more people. The municipality may benefit if the property owner, for example, can install automatic door openers in entrances and in elevators. This adjustment can help the elderly stay active. This will help them leave and enter the house. The elderly may be able to live at home longer than they otherwise would have been. It may be easier to bring home groceries if the door opens automatically when you arrive. The elderly might be less dependent on homecare organizations from the municipality with this kind of adjustment.

If one individual applies for housing adjustments, they can obtain a door that opens automatically. If that person lives on the second floor, that individual may obtain an automatic door for the elevator on the second level in the building. The individual who applies can also obtain an automatic door opener to the front door. Only this person benefits from the automatic door. The individual who applied for housing adjustment obtains a chip that helps this individual pass

through the automatic door. All the other elderly who live in the house must open the door manually.

SW: Are politicians interested in changing the Law of Housing Adjustment?

RD: Politicians are interested in changing the law. I am not sure where the proposal stands right now. I believe the law is under review.

SW: Are politicians interested in changing the Law of Housing Adjustment to cover property owners?

RD: Yes, I think so. Politicians want to change this law. Today, there are few incentives for property owners to adjust homes to suit the needs of the elderly. Property owners must cover the costs of adjusting the apartments and pass on this cost to the occupants. Some occupants do not want to pay higher rents. This is a difficult issue.

Some occupants might be able to pay to adjust their home. These individuals could purchase additional services such as adjustment services for their homes. However, some retired individuals have low pensions. These individuals are not willing to pay for home adjustments. These individuals can apply for home adjustment funding from the municipality. Home adjustment funding is so called need tested funding. The municipality will not look at your income when determining your eligibility for support. This is part of the social welfare model in Sweden. Everyone has the right to access this kind of assistance from the government, irrespective of his or her income.

It is difficult to encourage a property organization that is an association of all the occupants in a building to fund adjustments to the property. It is difficult to encourage younger tenants to contribute money to install automatic doors. Younger tenants argue that they manage to open the doors. They do not always think about the long term perspective.

SW: Can society save money by adjusting the homes of the elderly?

RD: I do not know. We studied the usage of home service by individuals who live in accessible properties but were unable to prove that individuals in accessible houses consume less home service services. Individuals who have homecare services obtain help with cooking, cleaning, and personal hygiene. We cannot

eliminate the need for these homecare services by adjusting the homes of the elderly.

Adjustments to the property could reduce the need for homecare services such as assistance with grocery shopping. If we install automatic doors, the elderly can more easily carry groceries through the door. The older person can exit and enter the building more easily, which increases his or her autonomy.

SW: Did you study if individuals in accessible houses live at home for longer before moving to a nursing home, compared to individuals who lived in inaccessible houses?

RD: This is an important question. We asked this question. We have no clear answer yet. A colleague and I applied for funding to carry out this research in Sweden. There is little research in this area. If an individual can stay at home for one extra night before he or she moves into a nursing home, society saves money. I would like to carry out more research in this area.

SW: What is your prediction?

RD: I predict that individuals who live in accessible houses keep active for longer. If you have automatic doors, you can more easily go for walks. Walking helps the elderly maintain good health. If you live in an accessible house, you go out more frequently. This helps the elderly to keep their network and prevents social isolation. It is difficult to carry out research in this area. You need to find a control group. You need to follow individuals over several years. You may need to follow individuals for ten years to show results.

SW: Did you work with accessible kitchens for the elderly?

RD: We ran a few projects focused on kitchens. We looked at cognitive kitchens. A cognitive kitchen is a kitchen that is easy to orient yourself around. A cognitive kitchen shows contrasts between the refrigerator and other cupboards. A cognitive kitchen is the opposite of a modern kitchen where all surfaces resemble each other.

Modern kitchens are cognitively difficult. An individual who suffers from dementia easily forgets where he or she puts things and might not be able to find their way around a modern kitchen. In many modern kitchens, cupboards with

white, shiny surfaces resemble dishwashers, and refrigerators. Modern stoves are difficult to operate, many surfaces are white, and there are few color contrasts.

We tried to create kitchens that are easy to understand. However, we did not focus on kitchens during Technology for the Elderly. Some elements of modern kitchens help the elderly. For instance, many modern kitchens have ovens that are placed high, which makes it easier for the elderly to open and close.

SW: What is the most important room to adjust for the elderly?

RD: The bathroom. If you can manage your personal hygiene you can live at home for longer. The kitchen is less important. Automatic doors are also a critical element since it helps the elderly enter and exit the building. The availability of elevators is important. Seniors struggle without elevators. Municipal property companies should encourage elderly who do not live on the first floor to move before they find it difficult to walk the stairs. Seniors become inactive once they are unable to leave the building.

The municipal property companies could offer the elderly apartments on the ground floor. This would help seniors. We cannot install elevators in all the old buildings. It is too costly. The city of Norrköping ran a project to examine the possibility of installing elevators in old buildings. They concluded that we can install elevators on the outside of some buildings, but it is very difficult. Property owners do not want to incur the costs of installing an elevator. In large cities like Stockholm, where the demand for apartments exceeds the supply, property owners have no incentive to incur this cost. In smaller cities, property owners can make their building more attractive by installing an elevator.



The picture shows a bathroom that is adapted to suit the needs of seniors.⁴

SW: What was the greatest success of Technology for the Elderly?

RD: Cameras for monitoring homecare services were the greatest success. Relatives feel safer with the camera. Users obtain several checkups every night instead of one checkup. The home service staff likes the cameras. A staff member turns on a web camera during the night and watches an individual at home to see that everything is alright. Everyone wins with cameras in homecare. Gothenburg introduced cameras all over the city. Digital devices used in home care are a part of eHomecare. Västerås has decided to implement eHomecare. eHomecare includes three different services, telephone calls, nightly checkups with cameras, and video conferencing with a tablet. Several municipalities introduced eHomecare. Cameras were the greatest success of Technology for the Elderly.

SW: In the future, should we focus on accessible housing or on eHomecare?

RD: Accessible housing makes individuals more active. Individuals who live in an accessible house stay active longer. Research confirms this. eHomecare helps individuals who have care needs. eHomecare and accessible housing target

slightly different groups. Users, relatives, and care organizations benefit from eHomecare.

We should also mention walkers in this context. Walkers are the best technical aides we can offer our elderly citizens. A walker makes an older person more independent. It helps the older person take walks. Walkers help the elderly when they shop. They can hang their groceries on the walker. Many older people feel dizzy. Some older people have poor balance. For several months every year there is snow and ice on the streets. The elderly would not leave their houses without walkers. Look around: every other older person walks with a walker in Sweden. I see few walkers in France and Italy. I believe that the elderly remains at home to a greater extent in these countries. Other countries can benefit from a wide scale introduction of walkers for the elderly.

Motorized wheelchairs and scooters save money for society. Motorized wheelchairs provide an individual with enormous benefits. A person who suffers from a disability may become completely inactive without a motorized wheelchair. The benefits over the course of this person's lifetime are enormous. For instance, these individuals can do their own grocery shopping, which saves on homecare services.

SW: What are the greatest opportunities in the area of technology for the elderly?

RD: We have the technology, but few of the 290 municipalities use it. Västerås, Norrköping, and Gothenburg use eHomecare. They are exceptions rather than the norm. This is both a challenge and an opportunity for the future. How do we encourage the municipalities to introduce technology? Implementation of technology is difficult. Municipal care organizations must rethink the way they work. They need to hire a technology coordinator. If you introduce cameras, someone needs to view the cameras. If you introduce mobile safety alarms, someone needs to search for the elderly who get lost.

SW: There are companies that provide these functions and mobile safety alarms.

RD: There are companies that do this. Municipalities are unaware of these companies. Costs prevent the introduction of technology. You need to educate staff on the use of technology. The technology is affordable; it is the reorganization that is costly. Care organizations can rent the technology. Västerås does that. A small municipality with only five or ten thousand inhabitants will

struggle to invest in technology. There are many small municipalities in Sweden. The small municipalities lack human resources for technology.

Several municipalities must collaborate to introduce technology. Municipalities must pool resources. Several municipalities could rely on one office that receives the safety alarm alerts. Several municipalities could hire one company to search for the elderly who get lost. Small municipalities can gain from technology. Many small municipalities struggle to balance their budgets. Technology can help them reduce costs.

SW: What are the benefits of mobile safety alarms?

RD: Mobile safety alarms can help people who suffer from mild dementia. The demographic trend indicates that a large number of people will live well into their eighties. This will result in a greater number of people suffering from cognitive failure. Mobile safety alarms can help these people.

The individual can carry the mobile alarm when he or she leaves the house. If he or she gets lost, the global positioning system can help care providers and relatives locate the individual. The alarm will provide a sense of security for relatives. Some mobile safety alarms are equipped with a telephone so that the user can call a care provider. Global positioning system technology can help the elderly.

SW: What about mobile safety alarms that the individual cannot remove?

RD: We have a legal problem here. We must obtain informed consent before we use such safety alarms. If we do not obtain consent, then we are forcing the individual to carry the safety alarm. We are not allowed to do this. Swedish laws stipulate that we cannot force anyone into anything. Force is not allowed in elder care. We must solve the issue of consent. As long as we have informed consent from the individual, we can use the global positioning system alarms.

The mobile safety alarms are designed for individuals who suffer from mild dementia. We can obtain informed consent from these individuals. Cognitive failure occurs before dementia. These people can carry the mobile safety alarms voluntarily. When they want to remove the alarm they can do so.

We will not force anyone to carry an alarm or use a camera. Most people who need this service can give consent. If an individual suffers from severe dementia, that individual probably lives in a care home. If you suffer from severe dementia, a global positioning system alarm will not help you. The alarms help individuals who need only some help to keep their sense of orientation.

SW: Thank you so much for your participation and interesting answers, Raymond.

RD: Thank you, Sofia.

¹ Visningsmiljöer

² Tillgänglig

³ Lagen om bostadsanpassning (1982)

⁴ Picture from studie av badrum "görbra för äldre". FoU Väst,

http://www.grkom.se/download/18.54be7653149dc01d8dd86025/1416901773297/2012_badrum.pdf