Surveillance technologies for dementia care

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Dementia has become a major global concern

Technology can be used to help older adults to remain living in their own home. Especially, surveillance technology might provide support for carers and people living with dementia. These technologies are promoted as products that keep people with dementia independent and safe.

Surveillance Technology (ST) can be a general description of monitoring systems where a carer can supervise a person with dementia 24/7. For example, a tracking device that the person with dementia carries around. This tracker is often connected to the mobile phone from the carer. Hereby, the carer can see the location of the person. There are many different ST products available online.

However, websites often provide unclear information about what the product does. Carers thought that such websites look like they are made for specialist. Further, these products often do not meet user needs. Therefore, we looked at over 300 websites that sell ST. We read through the information about the product’s functionality, country origin, intended user, price, and the keywords and portrayals used on the product websites.

Findings

The majority of products come from the United Kingdom. In the United Kingdom and Sweden, the companies behind the websites appeared to be webshops made by one employee. In the Netherlands there was a more balanced mixture of small, medium and large companies. In all three countries the website messaging focussed on the need to manage safety concerns, with less focus on privacy or consent.
Safety and independence

There are no hard facts that ST keeps people with dementia independent and safe.

Price

The purchase price ranges from £0 to £654 in the three countries. Similar products are priced differently by different providers.

Only 13 products were under £10. The headline price displayed often included extras (i.e. shipping costs, monthly fees).

However, the mean price is unknown because many websites do not display price, or additional costs.

Websites describe that using surveillance increases safety.

However, what is meant with increased safety?

Product descriptions either describe that the technology detects the person “wandering”, or that carers are alarmed with no further explanation.

We found two types of products being sold online:

1. **Detect.** A passive technology that monitors and detects the recipients' location.
   - Location finding may require the carer accessing a mobile phone or computer.
   - The recipient cannot push an alarm button or communicate in any other way.
   - For this reason, the carer has to constantly monitor the person’s location.

   “The … can act as both a locator for keys and bags or a tracking device for a loved one, to help keep them safe if they wander”
   Location tracker – webshop

2. **Alert.** A technology with an alarm button, but without a Global Positioning System (GPS).
   - A person can push the alarm button in case of an emergency. Somehow the carer is then made aware of this emergency, and can intervene accordingly.

Some website claim that their products both detect and alert. For example, a watch with GPS and an alarm button. It would then notify the carer with information about the recipients’ location, and the alarm button can be used when necessary.

   “Ideal for monitoring: pets (e.g. dogs / cats / horses etc...), children / teenagers of all ages & abilities, vulnerable adults or frail elderly who may misuse the SOS & on / off buttons e.g. autism, Alzheimer’s / dementia sufferers” SOS button – webshop

A minority of products were described as ‘preventing risk’; however without an explanation.
Who can use surveillance according to websites?

Messages were aimed at carers, researchers or organisations involved in social care provision. Websites would explain how they can benefit and keep a person with dementia independent and safe.

However, few websites would describe if people with dementia can use the product, and how they would benefit from it.

Notably, the majority of websites sell products that can be used for older adults, wanderers, children, pets, and possessions.

Privacy: Who receives the data?

When you have a technology that monitors it collects data. Most products identified online share this data. The majority of websites mention that carers would receive data, such as the location of the person with dementia. The second largest group of products found share data with third parties. Third parties include online clouds or alarm centres. Online clouds often backup data that involves sending it to a public network or off-site server. Alarm centres may gather information about the recipient location and when an alarm button was pressed.

Country differences

In the United Kingdom, product descriptions use words such as ethics and consent. In Sweden and the Netherlands, descriptions explained how surveillance can be disguised and covertly used. Majority of Dutch websites clearly state that no data will be send to third parties. Instead most data is send to the carer. Products from Sweden are often trackers that film or detect a person’s location. It is unclear what happens with this data.

Tip 1: searching online for surveillance technology

1. Be careful with certain search words

Webshops use search words to attract consumers. For example, search words such as; Alzheimer, dementia, wandering, safety, and independence. Whilst this may be important to you, ask yourself can a technology do these functions? Our advice is to search for features you want a technology to have. It can be helpful to discuss this with a care professional. Every situation and individual is different. Use the features you want as search words. For example, try “navigation” and “geo-fencing”. Once you find a website check if it has a contact form. It is important that you can contact them with questions.
Advertisements on websites

• Similarities countries
The websites use an universal language with a focus on safety and security. The problems described are loved one’s that are wandering, become lost, or have life threatening falls. The same visuals are used to portray people who are lost or fallen. Further, many websites use visuals that portray a younger carer and an older adult. Other visuals are often stereotypes of people with dementia, pets, children, and possessions. Stereotypes suggest that if you buy the product you will keep them safe. Otherwise a person or becomes lost or harmed.

• Differences countries
In Sweden websites described their products more as camera’s than can spy. In the Netherlands the products were described as sensors. In the United Kingdom products were mentioned as monitors with short descriptions of ethics and consent.

Top 10 words used on websites
1. Safe
2. Wandering
3. Security
4. Fall
5. Alarm
6. Lost
7. Independence
8. Consent
9. Secret
10. Vulnerable

Tip 2: searching online for surveillance technology

2. Read the manufacturer guideline and ask questions
When there is limited information available you can also search online for the manufacturer. Usually these companies provide guidelines. Another tip is to visit an electronic store. It might be helpful to ask employees who sell GPS and navigation systems some questions about the product. Finally, check if the webadress is trusthworthy. You can look at the date underneath the page to see when it was last updated. When the website doesn’t show HTTPS:// you can always type the website in a search engine. See if there are reviews available from others.

Contact

Authors: Yvette Vermeer a1, Paul Higgs a2, and Georgina Charlesworth b3

a UCL, Faculty of Brain Sciences, Division of Psychiatry, Maple House,6th Floor,149 Tottenham Court Rd, London W1T 7NF, United Kingdom
b UCL, Faculty of Brain Sciences, Department for Clinical, Education, and Health Psychology, 1-19 Torrington Place, London, WC1E 7HB, United Kingdom

1Yvette Vermeer, y.vermeer@ucl.ac.uk, Early Stage Researcher.
2Paul Higgs, p.higgs@ucl.ac.uk, Professor.
3Georgina Charlesworth, g.charlesworth@ucl.ac.uk, Assistant Professor Interdisciplinary Network for Dementia Using Current Technology (INDUCT)

WWW.DEMENTIAINDUCT.EU