
Similar Information Privacy Behavior in 60-65s vs. 50-59ers - Findings From A European Survey on The Elderly.

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Abstract

In this article, we present

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findings from a European survey with 10 countries on the subject sharing of personal information and concerns of the citizens. We compare the age group 60-65 years old with the age group 50-59, and in addition compare the Nordic region with the non-nordic population. There are more similarities than differences. The survey indicates that many of the elderly 60-65 take steps to protect their personal data.

Author Keywords

Information privacy; elderly; sharing of personal data; privacy-concerns.

ACM Classification Keywords

• Security and privacy ~Social aspects of security and privacy • Information interfaces and presentation

Introduction

Data is the fuel of the digital economy, but data about us individuals also represents problems and challenges of relevance for privacy, transparency and digital literacy. Since Westin's book Privacy and Freedom [6], many studies have used a segmentation model that divides consumers into three classes based on their privacy preferences: fundamentalists, pragmatists, and the unconcerned. One example is the privacy seg-

mentation index that consists of three questions and a set of rules to translate participants' responses into these three categories was developed. However, there are some limitations to these kinds of studies [3] [6].

What people state in a survey is not necessarily highly correlated to what they actually do. The privacy paradox is the phenomenon where an individual expresses privacy concerns but behaves in a contradictory way to these concerns [2]. Reasons for this mismatch between attitude and stated preferences are well documented in the literature on choice behavior. Sometimes people are satisficing and give social acceptable answers. We also know that people do not always make choices in accordance with their own self-interests. Still, surveys can give an indication of citizens' attitudes and behavior. Given that the statements and survey question have relevance, are easy to understand, and not vague or difficult, it is a valuable source of information.

Method and profile of the participants.

To get knowledge about sharing of personal data and what citizens perceive as problematic, we conducted a web-based survey targeting online and mobile phone users aged 16 to 65. We build on the report *Europeans' attitudes towards cyber security (2017)* and a survey on digital services by the Norwegian Consumer Council in 2015 [8]. The EU-study is based on personal interviews with 22.236 respondents (Internet users), representing 340 million Europeans in 28 EU countries. The Norwegian survey had 960 participants recruited from a web panel.

In 2017, the Norwegian Research Council funded project *Awareness Learning Tools for Data Sharing Everywhere* (ALerT). One questions relevant for ALerT-

project is citizens' experience with sharing personal data, and concerns about misuse of such data. The survey reported in this paper is the *ALerT survey*. The ALerT- and the cyber-security surveys are not directly comparable due to different sampling methods, but they were carried out in the same period, June to September 2017.

1605 participated in the survey carried out by Polling & Statistics AS. The fact that a person has accepted an invitation to be included in a panel run by a market research company indicate that the person has at least basic ICT-skills. The panel-member receives emails with a link to a web-based survey – there is no obligation to respond and participate in all surveys, but a hypothesis is that the somewhat more active individuals with opinions tend to participate. This means that the findings should not be interpreted as representing the average view in a national population. One should not expect the privacy fundamentalists as members of such groups. A stratified sampling technique was used on the variables gender (approx. 50/50), age and regions in the country. Since we are particularly interested in age, we present the age-profile of the 1605 participants in Table 1.

Age groups:	16-29	30-49	50-59	60-65
Four Nordic Countries	466	213	105	62
Six European Count.	255	275	153	76
Total (N)	721	488	258	138

Table 1: Age profile of respondents.

Next, we compare the 60-65 group to the 50-59ers for the four Nordic countries and for the six other European countries. We performed a Pearson chi-square test

What are the differences between 60-65s and 50-59ers?

Findings

The answers to the general questions indicate the citizens that participated in the survey have good knowledge and know how to protect their personal data.

When the citizens are asked about their behavior, what they do to control sharing of data, the percentages are lower. For the other questions, for the 60-65, it is approximately 50 percent yes/no or agree/disagree answers indicating a greater variety in attitudes and behavior.

The main finding is that the elderly 60-65 are similar to the 50-59, although some differences are identified.

Countries (ALerT-survey)

Norway, Sweden, Denmark, Finland, Germany, UK, the Netherlands, France, Italy and Poland

between the two groups; $p < .1$ is * and $P < .05$ is **. Table 2 shows the result.

Questions asked

The first section of the survey had the following four questions;

1. "Consider your computer or Internet skills. Do you know how to protect your personal data?"
2. "Consider your computer or Internet skills, do you know how to protect your private computer from virus or other computer infections?"
3. "Have you changed the privacy setting in your Internet-browser or in an app to avoid sharing of personal data?"
4. "App on your smartphone, have you restricted or refused access to your personal data (e.g. your location, contact list)?"

The answers are self-reports, thus not an accurate description of behavior. Still, we might assume that the participants have knowledge about their behavior. The answers give indications about behavior, and reveal differences if any between the age groups. We are particularly interested in the 60-65 vs. the 50-59 group.

Age groups:	16-29	30-49	50-59	60-65
Four Nordic C. Yes, I know how to protect p. data	72%	76%	79%	66%*
Six European C. Yes, I know how to protect p. data	88%	90%	87%	84%

Table 2: For the Nordic group the percentage that answers yes I know how to protect my personal data is significantly lower ($p < 0.1$) for the age group 60-65 vs. 50-59.

For the question *have you changed the privacy settings* and the question *have you restricted or refused access to personal data when installing or using an app*, only one difference is identified ($P < .05$). The answers indicate a significant difference for the six European countries for the 60-65 vs. the 50-59 on the question restricting access (see Table 3).

Age groups:	16-29	30-49	50-59	60-65
Four Nordic C. changed settings Yes, more than once	50%	63%	54%	45%
Six European C. changed settings Yes, more than once	44%	46%	41%	42%
Four Nordic C. ..restricted access.. Yes, at least once	73%	70%	53%	50%
Six European C. ..restricted access.. Yes, at least once	81%	78%	61%	49%**

Table 3: Use of privacy settings (age/region).

The next question concerns choices against smartphone apps when they require access to personal information. The questionnaire item is "Have you decided not to download an app on your mobile phone because the app required personal information that you did not want to share (example: your contact list)."

Age groups:	16-29	30-49	50-59	60-65
Four Nordic Count. I have decide not to download an app... Yes, more than once	42%	63%	58%	58%

Six European C. I have decide not to download an app... Yes, more than once	45%	60%	58%	59%
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Table 4: The answers indicate no differences - the age groups 60-65 answers and the group 50-59 answers are similar.

The last question concerns sharing of contact lists. Its purpose is to elicit the positive or negative attitude to sharing without consent. This question might indicate whether a person reflects on and is concerned about privacy. The fact that someone on a contact list is not asked is one of the more privacy-intrusive practices in today's digital environment [7]. *"An app-provider should be allowed to use your contact-list also for other purposes than the app needs to function."* Table 5 shows the results for the alternative fully disagree.

Concluding remarks

There are differences between age groups, but there is no clear pattern indicating the 60-65s should be significantly different from the 50-59ers in the sense that they are less concerned, less willing to protect data and/or less able to control sharing of personal data. Taken together, there are more similarities than differences between both age groups. The group of the Elderly in their 60ies does show ICT awareness and privacy attitudes similar to the population a decade younger. One may expect the group of the ICT-illiterate high-age Elderly to shrink over time.

Age groups:	16-29	30-49	50-59	60-65
Four Nordic C. use of contact-lists Fully disagree	53%	63%	65%	68%

Six European C. use of contact-lists Fully disagree	44%	62%	57%	57%
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Table 5: Sharing of contact lists (age/region).

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