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# THREATS TO THE SECURITY OF PERSONAL DATA OF ELDER PEOPLE IN CYBERSPACE

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## AREAS OF IT USAGE BY ELDERLY PEOPLE

- **Communication:** Using mobile phones, internet messengers, emails, and social media to contact family, friends, and other people.
- **Shopping:** Making online purchases, using mobile apps to compare prices, ordering food for delivery.
- **Healthcare:** Using mobile apps to monitor health, health calendars, remote medical consultations, electronic prescriptions, etc.
- **Banking and finances:** Handling online banking, making online payments, monitoring account and investment status.
- **Education:** Participating in online courses, webinars, reading e-books, watching video courses on various fields of knowledge.
- **Entertainment:** Watching movies and TV shows online, listening to music, playing computer games, using streaming platforms.
- **Independence in daily life:** Using smart home devices, voice assistants to control lighting, thermostat, alarms, etc.
- **Hobbies and interests:** Finding information about hobbies, reading blogs, participating in online communities related to passion.
- **Memory and cognitive skills:** Using games and apps to exercise memory, learning foreign languages, solving puzzles and quizzes online.
- **Personal safety:** Using apps to monitor location, wearing alarm devices in case of emergency situations, learning basic online safety.

## MAIN PROBLEM:

**Personal data can be misused, even if legally obtained, as they constitute an asset with measurable financial value.**

## THREATS AND CHALLENGES

- digital exclusion of older individuals, inadequate digital literacy
- extortion, cyberterrorism
- illegal acquisition of sensitive personal data ex. health-related
- inadequate financial literacy
- adapting services for older people (e.g. medical) to their capabilities
- dark patterns in cyberspace

## DARK PATTERNS

Dark patterns are online behaviors aimed at manipulating the user into performing conversions in a predetermined manner, often controversial and psychologically influencing the internet user, i.a.:

- Confusion
- Forced action
- Friend spam

## POSSIBLE SOLUTIONS

- Without information systems, the ability to provide medical care, such as administering appropriate medication, is limited, which can lead to fatal consequences in case of medication errors or inadequate care.
- Providing access to personal data to family members.
- Key data protection goals include transparency, unlinkability, integrity, confidentiality, ability to intervene, and data availability.
- Digital education.
- Ensuring ease of use of medical systems through user interfaces designed for older individuals.

