Trust development in care robots by opinion leader in the society

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Purpose This study sheds light on trust processes and issues of public opinion leaders concerning care robots. We analyze the interplay of knowledge, societal concerns and the socio-technical ecosphere on trust. We specifically focus on opinion leaders in the society (politicians, insurances, and media) in three countries (Finland, Sweden and Germany). The purpose is to identify which arguments slow down the process of implementing assistant robots in care and which structures should be implemented to increase trust in assistant health care technology. Trust is defined by the dispositional trust (e.g. a personal trait), institutional trust (e.g. trusting that the situation is reliable) and progressive updating of beliefs via experiences (Goto, 1996). **Method** The data were collected in Finland, Sweden and Germany at the macro-level of the society. In total twenty half-structured interviews were conducted with representatives of politicians, insurance companies, editors of scientific journals and public science communication. The interviews were transcribed, and a content analysis was conducted. **Results & Discussion** Past research reveals that trust in health technology differs from trust in other types of technologies (Steineke et al., 2012a). The Eurobarometer survey (2015) investigating autonomous systems found that a significant majority in the population (89%) believes that autonomous systems are a form of technology that requires careful management (European Commission, 2015). This highlights the high expectations of the society and the slow evolution of structures and implementation. Rather than testing and generating history-based trust, opinion leaders raise the expectation level concerning technology to 0% failure, resulting in distrust in care robots. Moreover, the current information level regarding assistant robotics in care is perceived to be at a very non-transparent level. One possible explanation was explored by Swain et al. (2015) who found non-transparency of services and available products in the health IT market in the US, which slows down the integration in care. This might also be transferrable to the Swedish, Finnish and German health market. Nevertheless, public opinion leaders are aware of the possibilities that assistant robots in care entail in times of lack of skilled caregivers. However, they are cautious to speak up for this: First, because of the lacking adequate information structure and second because of the generally perceived negative mood of society towards assistant robotics in care. Furthermore, fear of failure restricts the evolution of trust. "[…] So that courage is needed. The courage to dare to fail, […] and we must dare to expose ourselves to it because many lessons are then learned" (political decision maker, Sweden, 2019). Therefore, structured information dissemination and practical experiences are required in order to inform about the possibilities of using assistant robots and thereby increase the trust for assistant robotics in everyday care.

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