Successful digital transformation of public healthcare services

- the Digital Night Surveillance Project

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"Implementation of welfare technology. Digital surveillance in municipalities and its impact on innovation of services and organisation."

- Project initiative from vendors (SME network)
- Consortium of municipalities (8), SME network and universities (2 universities/multidisciplinary research team of 9)
- Focus on elderly with dementia in nursing homes «night wanderers»
- Funded by Regional research funds, part of the Norwegian Research Council
- Innovation project: technology implementation and service design
- Research project: longitudinal participatory research and action research





The technology

- Fairly simple technology in the making in a new context
- Service and technology developed and implemented through co-creation
- Surveillance triggers legal privacy concerns
- Unstable technology triggers ethical concerns











Project methodology: Co-creation and participatory research

 Workshops – arenas for learning and knowledge sharing in triple helix network

 Focus on reaching out to the "infantry" (health care workers) AND management





Successful

- but there were some challenges

- Increased safety perceived by all parties
 BUT technology and infrastructure are unstable
- «It is almost unethical not to adopt this technology»*
 BUT the employees have ethical concerns: concern for the content of their professional service performance
- Increased privacy and dignity
 BUT surveillance technology challenges legal privacy considerations

*(quote from informant)





Major challenges in the region(s)

NATIONAL LEVEL: Ehealth as part of general digitalization

Lack of funding and political determination

REGIONAL LEVEL: Planning needs to start earlier and include a broader range of stakeholders

Health care sector/municipalities lacks the ability to be a demanding costumer

Lack of project management skills

Hard to move beyond project phase

'Vendors of technology from Mars and health care workers from Venus'

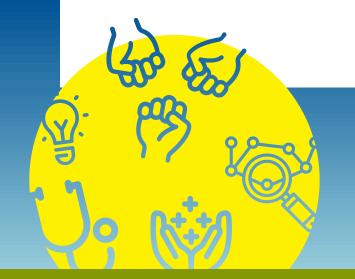
Routines and division of labour carved in stone

Lack of arenas for learning and knowledge sharing

Lack of management involvement, knowledge and skills



Institutional level:





Publications

- Nilsen, E.R., Stendal, K., & Gullslett, M.K.: The complexity of stakeholders in Implementation of Technology in Primary Health Care a roadmap. (In review)
- Dugstad, Eide, Nilsen & Eide: Towards successful digital transformation through co-creation. A longitudinal study of a four-year implementation of digital night monitoring technology in residential care for persons with dementia.(In review)
- Eikebrokk, Tom Roar, Etty R. Nilsen and Niels Garmann-Johnsen (2017): Exploring the role of process orientation in healthcare service innovation: the case of digital night surveillance. In *AMCIS 2017 Proceedings*.
- Nilsen, E. R., & Gausdal, A. H. (2017). The multifaceted role of the network orchestrator a longitudinal case study. International Journal of Innovation Management, 21(6), 1-23.
- Stendal, K. and Dugstad, J. (2017). What are the role of the IT-department in future health care, can they be ignored? *Proceedings of Scandinavian conference of Health Informatics, Kristiansand, Norway.*
- Nilsen, E. R., Dugstad, J., Eide, H., Gullslett, M. K., & Eide, T. (2016). Exploring resistance to implementation of welfare technology in municipal healthcare services a longitudinal case study. *BMC Health Services Research*, *16*(1), 657.
- Gausdal, A. H., & Nilsen, E. R. (2011). Orchestrating Innovative SME Networks. The Case of "HealthInnovation". Journal of the Knowledge Economy, 2(4), 586-600.

