# P-7: Developing welfare services with social robots

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**Introduction**
The workshop focuses on using social robots in care and on developing new robot-enabled care services. The workshop features services designed and used in Robots and the Future of Welfare Services (ROSE) project in Sipoo and the upcoming pilots in HyvinRobo project in Kuopio. Digitalisation and automation play a major role in solving current societal challenges, such as aging of the population and development of welfare services. Supporting the well-being and independent living of senior citizens with new generations of social robots and care robots is a part of this development.

**Material and Methods**
From a research point of view, social robots have rarely been used in welfare services in Finland. The social robot service offerings in Finnish market are limited, and rarely suitable for pilot research with user groups that have special needs, such as senior citizens or people with disabilities. Instead of using existing offerings, researchers have the option of developing the services and the software required for pilot deployment themselves. While current generation of social robots makes service development relatively easy in terms of technology, the process from ideation to implementation features other challenges.

**Results**
Co-creation allows service developers to acknowledge their users' needs and to create services that are purposeful for the users. However, social robots are largely unfamiliar technology among care workers. Unfamiliarity with used technology results in difficulties in providing useful input towards ideating and developing services. The workshop features learnings from ROSE project and invites the participants to generate new service ideas for the upcoming HyvinRobo project pilot experiments.

**References**
- Kachoie R, Sedighadeli S, Khosla R & Chu MT. 2014. Socially assistive robots in elderly care: a mixed-methos systematic literature review. International Journal of Human-Computer Interaction. 30, 5, 369-393.
- Kangasniemi M., Pietilä A-M. & Häggman-Laitila A. 2016. Automatiikka ja robotiikka hoitotyöntekijöiden työn muutoksessa. Tutkiva Hoitotyö 14(2), 40-45.
- Pöyry-Lassila P., (2017). Palveluiden yhteiskehittäminen ja yhteistuottaminen. Kansalainen keskiöön! Näkökulmia sote-uudistukseen. 25-31. Kunnallisalan kehittämissäätiön julkaisujen sarja, Kunnallisalan kehittämissäätiö KAKS.
- Tuisku, O., Pekkarinen, S., Hennala, L. & Melkas, H. Robotit innovaationa hyvinvointipalveluissa. 2017. Kysely kentän eri toimijoiden tarpeista, rooleista ja yhteistyöstä. Lappeenrannan teknillinen yliopisto.
- Yock, PG., Zenios, S., Makower, TJ. 2015 Biodesign: The process of innovating medical technologies. 2nd ed. Cambridge University Press.
- http://roseproject.aalto.fi
- http://sht.savonia.fi/palvelut/hyvinrobo