

Logistics Robots as an enabler of hospital service system renewal?

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Purpose – This paper examines the introduction of logistics robots from a multi-actor network perspective in a hospital service system. The focus is on complex dynamics, emerging practices and value-in-use.

Methodology – A longitudinal case-study approach was applied to examine the stepwise introduction of the advanced logistics robot system empirically in the Finnish Central Hospital. Aligned with implementation, two-phased interviews of different involving actors/professions in addition to observations were conducted during 2016-2018.

Findings – The empirical findings reveal complex interdependences in the dynamic hospital service system. All actors shared their conception of the systemic change boosted by the logistic robotic system to enable more efficient and customer-centric care work as a core service. However, the multi-actor insights and emerged new practices show the diversity with conflicting interests in terms of changing mutual roles, resource integration and related redesign possibilities.

Research limitations – The chosen research approach provided rich empirical data. However, the findings are tentative with case-study limitations, and thus open avenues for further research.

Research implications – The paper brings new empirical insights by combining practice-based, service systems thinking and S-D Logic approaches with previous research on service, and particularly logistics, robots in the hospital context.

Practical implications – The paper provides a deeper understanding, and alternatives to consider systemic and all relevant actors' perspectives when logistics robots are designed and activated for everyday use.

Originality/value – The study narrows the identified research gap considering the lack of empirical research on the introduction of service robots in health care from the systemic perspective.

Key words: Service systems, robots, practice, value-in-use, hospitals

Paper type – Research paper

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