Evaluating Digital Public Services in Swedish Municipalities*

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Abstract

Provision of digital public services (DPS) requires the public sector to make decisions on how to implement digitalization including choosing which digital solutions to adopt. This is observed in Swedish municipalities, as elsewhere, as municipalities implement new technologies such as the use of artificial intelligence in social services. However, there is a lack of clarity on how service digitalization evolves in relation to initial implementation expectations and limited knowledge on how these services should be evaluated. Previous research highlights the need of evaluation and lack of appropriate evaluation means but there is still a research gap on how DPS can be evaluated. To contribute to filling that gap, this poster presents a research proposal aimed at investigating and developing a DPS evaluation artifact. This research project will follow a design science research (DSR) methodology.

Keywords

digitalization, digital public service, municipality, evaluation, design science research

1. Introduction

In Sweden, municipalities are adopting digital public services (DPS) more than ever before. However, there is a lack of clarity on how service digitalization evolves in relation to initial implementation expectations and limited knowledge on how these services should be evaluated.

Carrying out evaluation would enhance the understanding of DPS and guide municipalities in assessing progress, learn from experience, and inform future public service digitalization. Nevertheless, DPS evaluations are known to be complex undertakings requiring taking into account both the technological and social aspects [1]. More specifically, evaluations have to consider services themselves, evaluation objective, timing, types of indicators, and stakeholders whose benefits and interests differ and change with time [2].

Previous research has illustrated that technology adoption is sometimes pursued for the sake of it [3] and thus risking losing core service values. In addition, a lack of standardized and reliable methods for evaluation is highlighted [4][5]. This leaves a research gap on how DPS evaluation can be conducted.

This poster presents a research proposal aimed at investigating and developing a DPS evaluation artifact, using a DSR approach.

2. Methodology

This research will follow Design Science Research Methodology [6] to develop an evaluation artifact for DPS. This project will be conducted in collaboration with a Swedish municipality and will consist of the following activities:

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- Problem identification and motivation. This activity will consist of analyzing research on DPS, digitalization policies and strategies, as well as official reports from municipalities to establish the state of the art of the DSR evaluation.
- Define objectives of a solution. In collaboration with the selected municipality, we will analyze the DPS evaluation phenomenon in its natural setting. This will complement our understanding with views and practical experience from the employees and then guide us and the municipality in specifying the solution objectives.
- Design and development. In this phase we will design and create a DPS evaluation artifact based on previous research and practical experience in the municipality.
- Demonstration will entail showcasing and explaining the developed evaluation artifact for selected employees in the municipality to clarify its potential uses.
- Evaluation: This activity will involve assessing the DPS evaluation artifact. This will be carried out through the artifact use and appraisal by the municipality's employees. The feedback from the assessment will inform the refinement of the artifact for improved usefulness and usability.

We will conduct the above-mentioned activities iteratively until a suitable DPS evaluation artifact is created for municipality use.

3. Expected contributions

This research is expected to contribute to practice by providing an evaluation artifact that will guide the municipality in evaluating DPS which will lead to learning from experience and informing future DPS initiatives. This research will also add DPS evaluation to the body of knowledge of digital government.

Declaration on Generative Al: The author has not employed any Generative AI tools.

References

- [1] S., Mukamurenzi, Å., Gronlund, S.M., Islam, An Information Systems Artifact Approach to Evaluate e-Government Services in Rwanda, in: Proceedings of the 14th International Conference on Theory and Practice of Electronic Governance, (2022) pp. 316–323. doi:10.1145/3494193.3494304
- [2] S., Mukamurenzi, Å., Gronlund, S.M., Islam, Evaluating eGovernment Evaluations: Trend and Issues, in Proceedings of the 15th IFIP WG 8.5 International Conference, Guimarães, Portugal (2016) pp. 123–134.
- [3] D., Toll, M., Booth, I., Lindgren, I., Digitalization and automation for the sake of IT? Insight from automation initiatives in Swedish municipalities, in: Proceedings of the 16th International Conference on Theory and Practice of Electronic Governance, Belo Horizonte, Brazil (2023) pp. 86–93. doi:10.1145/3614321.3614333
- [4] K., Nordesjö, (2021). The constitutive effects of social investment evaluation. Evaluation, 27(2) 210–228. doi:10.1177/1356389020969712
- [5] V. Zander, R.M., Johansson-Pajala, C., Gustafsson, (2020). Methods to evaluate perspectives of safety, independence, activity, and participation in older persons using welfare technology. A systematic review. Disability and Rehabilitation: Assistive Technology, 15(4), 373–393. doi:10.1080/17483107.2019.1574919
- [6] K., Peffers, T., Tuunanen, M.A., Rothenberger, S., Chatterjee (2007). A Design Science Research Methodology for Information Systems Research. Journal of Management Information Systems, 24(3) 45–77. doi:10.2753/MIS0742-1222240302