

Service Automation in the Public Sector Concepts, Empirical Examples and Challenges

A book to be published by Springer Publications, edited by:

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Introduction

Automation and services based on artificial intelligence can bring benefits across numerous functions in the public sector. As the public sector is under pressure to operate more efficiently, to serve citizens well and to provide good working environment for employees, these technologies are regarded to be promising for improvement of public sector operations. Recently, automation of services has re-emerged as a popular theme in the e-government discourse; automation of structured and high-volume routine tasks is currently discussed as a way to shorten lead times and reduce costs for manual labor in public service delivery. A current example is RPA (Robot Process Automation), a paradigm in which software-robots imitate human behavior and interact with user interfaces of information systems to perform repetitive tasks quickly and profitably. RPA is an example of lightweight Information Technology oriented towards business with fast and user-driven implementations.

Based on experiences from the private sector, RPA has been found to increase customer satisfaction, financial performance and process compliance. Also, RPA is found to free employees from repetitive and monotonous work so that they become available for more critical and value adding tasks. RPA is currently discussed as a silver bullet that can resolve the challenges faced by public sector organizations: inefficiency, lack of funds, working environment issues, lack of competence, to name a few. How

well automation technologies such as RPA can perform in relation to public service delivery, however, remains an open question; we still lack empirical evidence for the success and suitability of automation technologies such as RPA for public service delivery. Hopes are that service automation will lead to lower costs, more efficient processes, fewer errors, time savings, improved service quality of citizen services to name a few. However, there is yet limited research on service automation in the public sector, and there are only a few studies available that target automation technologies involving robotic or AI elements in public sector organizations.

Objective of the Book

This title aims at presenting the latest research advancements and findings for applying service automation in public sector organizations. Examples of service automation may include, but are not limited to, Robotic Process Automation and various AI technologies. The book will bring forward conceptual- and empirical work from social as well as technical perspectives. The result will aid researchers and practitioners to advance knowledge and to provide a foundation for policy development and future research.

Target Audience

The audience of the book includes:

- Researchers in the digital government/e-government domain
- Practitioners in public sector organizations working actively with automation
- University students and professors from different disciplines
- ICT industry experts, engaged in public sector information systems, RPA software design and deployment projects related to automation
- Policy makers at local, regional, national or international government levels

Recommended topics

In this call, we encourage (a) conceptual papers, as well as (b) methodological, and (c) empirical papers on service automation in the public sector. The general term 'service automation' is used in an inclusive manner, including a wide set of technologies used to automate human (manual) labor in the public service delivery process. The topics of the present call include, but are not limited to, the following:

- Basic research questions, key concepts, generic laws and foundational principles of service automation in the public sector
- Ontologies, taxonomies, lexicons and other semantic elements for service automation
- Service automation in the public sector from different perspectives: citizen, civil servant and other stakeholders
- Relation between legacy systems, RPA/AI and human workers
- Ethical considerations associated with automation and AI in the public sector
- Goals and benefits of service automation in the public sector
- Overviews and discussions of technologies suitable for service automation in the public sector, e.g., Robotic Process Automation, Artificial Intelligence, Systems Integration
- Methods for service automation recognition and identification of reusable elements

- Organizing for implementing automated processes, for example center of excellence
- Methods for planning, implementing and operating automated processes
- Methods and guidelines for contracting of automation and AI
- Empirical examples of service automation in different areas of the public sector, such as health, school and public administration.
- Implications of service automation for workflow and/or work environment
- Empirical examples of lightweight IT for service automation
- Strategies for AI and automation in the public sector
- Challenges of automation and AI in the public sector
- Organizational implications of using automated processes
- Public service quality implications
- Security aspects of RPA/AI implementations
- Guidelines and recommendations on service automation to key stakeholders
- Research agendas for future research on service automation in the public sector

Submission Procedure

Interested researchers and practitioners are invited to submit on or before **1 February 2021** a brief proposal, including:

- The proposed title
- An extended abstract of the proposed chapter - up to 500 words
- Brief Author(s) CV(s) - up to 150 words per author
- Authors of accepted proposals will be notified by 1 March 2021 on the status of their proposals and be sent additional guidelines.
- Full chapters must be between 6,000 and 8,000 words and are expected to be submitted by **1 June 2021**. All submitted chapters will be reviewed on a double-blind review basis.

Important Dates

9 December 2020	Idea Discussion Workshop (voluntary)
1 February 2021	Proposal Submission Deadline
1 March 2021	Notification of Proposal Acceptance
31 March 2021	Chapter Development Workshop (voluntary)
1 June 2021	Full Chapter Submission Deadline
31 August 2021	Notification of Chapter Acceptance and Review Results
15 October 2021	Camera-Ready Chapters Submission Deadline
7 March 2022	Planned Book Publication

Open Access

The intent is to publish the book as open access and we are actively applying for the required funds.

Inquiries may be addressed to all co-editors.

Proposals submissions should be forwarded electronically (Word/PDF document) to any of: gjs (at) dsv.su.se; ida.lindgren (at) liu.se; maria.akesson (at) hh.se.