

## Chapter 88

# E–Government Innovations and Work Transformations: Implications of the Introduction of Electronic Tools in Public Government Organizations

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### ABSTRACT

*In this article the authors address the question of how IT innovations affects public organizations concretely exploring the emerging attitudes of public government employees towards new forms of work with electronic tools. The authors bring our analysis and theoretical discussion beyond the widely applied technology acceptance models to examine the introduction of electronic tools too focused on technology functionality and short time analysis sights. Organizational and socioeconomic aspects together with the functionality of new concrete technological tools influence the innovation processes including work transformations. Based on the model of innovation proposed by Ebbers and Van Dijk (2007) the article focuses on the analysis of employees' resistance and support in innovation processes of the introduction of public government electronic tools. The authors apply the model to the case of the introduction of the Electronic Records System (ERS) (an electronic tool for the document management of unemployed persons) in a public organization in Germany. The analysis reveals that technology driven innovation ignoring work habits and transformations leads to employees' resistance to change. A conceptual redefinition of Ebbers and Van Dick's model based on the analysis results of the ERS including an extension of the resistance and support concepts as well as indicators is proposed.*

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## INTRODUCTION

The process involved in the introduction and implementation of innovative electronic government services confronts challenges at different levels, such as organizational, individual, technological. These challenges have been separately analyzed by several disciplines such as management, psychology, sociology and information systems. However, in order to understand the whole picture of challenges involved in this innovation process an integrated multidisciplinary perspective is required. Previous research and theoretical models such as the widely applied model of user acceptance of technology have been too much focused on technological aspects emphasizing problems of individual use patterns. Theoretical and empirical work leave aside the analysis of the whole innovation process including social and organizational factors influencing resistance or support for the new technologies. Social and organization research have shown that innovation involves social processes of learning, sense making and flexible adaptation of practices taking place in interactions between actors involved at different moments of work transformation process (Brown & Duguid, 1991, Weick, 1979, Argyris & Schon, 1978, Cicourel, 1990, Ching, Holsapple & Whinston, 1992, von Hippel 1997). Fragmentation and consolidation of tasks may occur simultaneously in relation to the introduction of electronic tools in work processes (Huws 2003; Ruiz Ben 2013). New activities or the re-combination and concentration of diversified tasks into a single activity due to the introduction of electronic tools challenge employees in public organizations. Thus, employees themselves confront the change requirements of using electronic tools in their day to day tasks interacting with their colleagues and informally creating organizational supporting or resisting strategies in the innovation process. Both acceptance and resistance of implementing and transforming electronic tools in day to day work practices are influenced by multiple contextual,

social as well as functional technological factors along a whole innovation process.

We aim at closing the research gap in the research on the introduction of electronic tools in public organizations, too much focused on individual and technological aspects and argue that the adoption of a new electronic tool is not just a matter of individual acceptance of the employees, but also a question of social, organizational and technological changes that occur in the framework of a whole innovation process. Ebbers and van Dijk (2007) proposed a multi-disciplinary model for the analysis of organizational processes of resistance and support to electronic government. This model overcomes the linearity of previous models, but also the one sided perspective of individual, organizational and technological determined models.

1. Which characteristics show the innovation processes in the introduction and implementation of Electronic Records Systems public organizations?
2. Which factors lead to resistance of the implementation of Electronic Records Systems tools in public organizations?
3. Which factors lead to the support of Electronic Records Systems tools use in public organizations?

The paper is organized in five parts. First we show a brief review of research on technological innovation adoption in the public sector and explain our theoretical model. Second, we explain the methodology used in our research. Third, we show our empirical results to further discuss them and offer some conclusions and suggestions for further research.

## Theoretical Basis for ICT Innovation Adoption in the Public Sector

Information technology acceptance and adoption models constitute the most common theoretical basis for the analysis of the effects of technology

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