

Moving Forward by Looking Back:

Learning From Unsuccessful E-voting Projects in Europe

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Abstract. Unsuccessful e-voting projects are more common than successful ones, yet they are underrepresented in the e-voting literature. Therefore, an interdisciplinary research proposal is offered to highlight the importance of failed e-voting endeavours by investigating the causes and consequences of failure. Besides answering why European e-voting projects are prone to fail rather than succeed, special attention is paid to the impact of that kind of outcome on future e-voting initiatives and to the examination of the state-of-the-art e-voting solutions and experiences that may overcome detected failures in the future. Towards that end, four case studies (Germany, Netherlands, Norway, UK) will be conducted to uncover context-specific and common failure sources. Ultimately, underlining the project's policy dimension, recommendations for policymakers will be formulated to improve the process of e-voting evaluation and implementation.

Keywords: e-voting, failure, interdisciplinary research.

1 Introduction

Many European countries have been trying to boost citizen participation in the electoral process by introducing technology in what is still considered to be “the realm of pen and paper”. Besides improving turnout, particularly among previously underrepresented segments of the electorate, technology utilization also demonstrates potential benefits in enabling more accurate vote counts and creating an easy and convenient voting experience.

Nevertheless, successful e-voting¹ projects are an exception rather than a common phenomenon. In Europe, Estonia is the first and only country that has implemented e-voting completely, while Belgium and France have implemented it partially. In contrast, countries with long democratic traditions such as Germany, the Netherlands, Norway, and the UK² cancelled or did not continue with the implementation [7]. It is worth noting that Switzerland is currently in the process of reintroducing i-voting trials [1]. Despite that fact, a vast majority of e-voting research focuses on projects – particularly Estonian

¹ In this paper, electronic voting (e-voting) is defined as ‘the use of electronic means to cast and/or count the vote’ [2]. In this context, if not stated otherwise, e-voting refers to on-site e-voting and internet voting (i-voting).

² Alongside them are, for instance, Finland, Ireland and Italy. In the context of this research proposal, emphasis is given to case studies of the four countries mentioned above.

and Swiss – which are, although more or less successful, still uncommon in the general e-voting landscape.

This consideration urges us to concentrate on the prevailing e-voting project outcome – failure – that may be even more crucial for e-voting introduction in Europe than the few successful examples. At the very least, failure is as crucial as success and thus deserving of in-depth study.

2 Project relevance

Democracies with long traditions of free and fair elections, such as Germany, the Netherlands, Norway, and the UK, all at one point launched e-voting projects that, suddenly faced with various challenges, ultimately failed. Proclaimed reasons for what the literature calls abandonment, cancellation and/or discontinuation of e-voting³ in the subject countries can be summarized as (a) trust issues and security concerns raised by various social groups, particularly civil society and experts [5, 7, 8] and (b) non-compliance of employed technological solutions with established legal requirements [7, 8].

E-voting failures are, in essence, policy failures, studied in more detail by Howlett [6]. Policy failures are of various types (program, process, and political issues); they occur in different stages of the policy cycle (agenda setting, formulation, decision-making, implementation, and evaluation phase); and they have several dimensions (extent, avoidability, visibility, intentionality, duration, and intensity). By internalizing that a failure is a complex, multifaceted phenomenon, it is possible to scratch beneath the surface to uncover other causes of e-voting failures apart from those officially declared. For instance, security concerns triggered by inadequate e-voting solutions might have deeper roots in the lack of sufficient funds or incompetence of those responsible for its development.

Revisiting unsuccessful e-voting projects in Germany, the Netherlands, Norway, and the UK is relevant for several reasons. First, failed e-voting efforts transcend boundaries and influence others who look attentively at public policy outcomes in role model countries. Second, this ‘discourage effect’ may hinder or block new e-voting initiatives. Third, e-voting trials and deployment are the best way to improve e-voting solutions and generate new knowledge. Fourth, this orientation is in line with recent research suggestions, which encourage the investigation of reasons for e-voting abandonment and conducting comparative case studies [3]. Lastly, recommendations based on failure examples can support policymakers who seek sound empirical findings to decide whether to reintroduce e-voting projects.

3 Research design

The proposed research aims to illuminate the causes and consequences of e-voting projects failures in Europe. Therefore, the research question is: *Why are e-voting projects in European democracies prone to fail rather than succeed?* Two additional sub-

³ “E-voting failures” refers to all of those three and other similar phrases.

questions are: (1) *To what extent do those failures influence new e-voting initiatives in the subject countries and the rest of Europe?* (2) *Could some of the obstacles from previous e-voting projects be overcome with the help of state-of-the-art e-voting solutions and experiences?*

The project is designed in the form of a small-C comparative case study research including Germany, Netherlands, Norway and UK [4]. Factors such as type of e-voting, implementation phase, the scale of implementation, and proclaimed reasons for failures are different across cases, whereas the outcome is identical. What is more, selected cases are considered significant in the European context, and are a solid point of departure by offering an amount of existing literature, documents, and other valuable pieces of information.

When it comes to data collection, the first phase will be conducted as desk research to collect existing research and other data collections (e. g. legal documents, reports, feasibility studies, media content). The second phase is fieldwork in the form of semi-structured interviews with relevant stakeholders (politicians, election officials, activists, researchers, judges). Within-case evidence will be combined with cross-case analysis to point out the strengths of both.

Interdisciplinarity is a distinctive characteristic of this project situated at the intersection between political science, law, and computer science. The project emphasises the institutional level of e-voting implementation, understanding e-voting as a failed public policy that needs to be analysed retrospectively. Political analysis is also beneficial in exposing the impact of e-voting failures on further e-voting initiatives. Not forgetting that elections are subject to regulation, e-voting legal frameworks will be assessed and mutually compared, while relevant case law will be studied. As e-voting is tech-driven, computer science will be employed to provide a deeper insight into technical vulnerabilities and to examine the possibilities of recent technology in overcoming detected limitations.

4 Expected outcome and significance

This interdisciplinary project will contribute to mapping common and context-specific causes of e-voting failures in the European context. That will help better understand all the challenges policymakers encounter when designing public policies on new technologies, particularly those linking democratic processes with technology. Last but not least, policy recommendations will be formulated for a sensible e-voting evaluation and implementation.

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