Chapter 6
Interoperability Requirements, Recommendations and Standards in e-Participation

Sabrina Scherer  
University of Koblenz-Landau, Germany

Naoum Liotas  
University of Macedonia, Greece

Maria A. Wimmer  
University of Koblenz-Landau, Germany

Efthimios Tambouris  
University of Macedonia, Greece

Konstantinos Tarabanis  
University of Macedonia, Greece

ABSTRACT

E-participation is understood as the use of modern Information and Communication Technologies (ICT) in order to involve all parts of society in political decision-making. The field of e-participation is highly fragmented, mainly due to the large number of different participation areas, stakeholders, levels of engagement, and stages in policy-making involved. A key challenge for overcoming the complexity and current fragmentation of the field is to achieve interoperability between different e-participation systems, i.e. assembling e-participation toolsets dynamically according to respective participation processes and needs, and making use of content from different applications and tools. Unfortunately, e-participation toolboxes that ensure interoperability and make use of standards in order to exchange data with other systems are rare. Interoperability between e-participation systems needs to be investigated first, before it can be ultimately achieved. The chapter addresses these interoperability challenges by (a) contributing to a better understanding of interoperability in regard to e-participation systems, (b) studying the interoperability needs of e-participation, and (c) deriving a set of requirements and guidelines in order to guarantee interoperability among e-participation tools and processes. We present a methodological framework to differentiate interoperability requirements in e-participation solutions in terms of political context, organizational, legal, semantic and technical interoperability.

DOI: 10.4018/978-1-61520-887-6.ch006
INTRODUCTION

It is generally acknowledged that the importance of citizen participation is closely linked with the ability to redistribute political power (cf. Arnstein, 1969), regardless of the political system. For several years now, the term e-participation is gaining momentum by bridging the dimension of innovative Information and Communication Technologies (ICT) with political participation in order to engage citizens, politicians and other stakeholders in democratic participatory decision-making (Macintosh, 2006).

In research, e-participation is understood as a multidisciplinary field (cf. Macintosh and Coleman, 2006, Macintosh et al., 2009, Wimmer et al., 2007). A large number of diverse participation areas, involved stakeholders, levels of engagement, and stages in policy making characterise the area (Wimmer, 2007). These characteristics are inherent to the e-participation research and practice (Thorleifsdottir & Wimmer, 2006) and as a consequence researchers are often confronted with this high fragmentation of the field.

Relevant studies have recently evidenced an increasing activity in the field of e-participation in Europe (Aichholzer & Allhutter, 2009, Panopoulou et al., 2009, Scherer et al., 2008a, Tambouris et al., 2008, Tambouris et al., 2007b). Due to the breadth of the field, a number of distinct e-participation tools have emerged, which support the different e-participation areas (see for example Tambouris et al., 2007b, Thorleifsdottir & Wimmer, 2006, Wimmer, 2007). These are mainly offered as stand-alone tools or applications. Exchange and reuse of content as well as cross-application participation processes have so far not been investigated widely in the e-participation context. Applications and tools barely make use of standards, and hence jeopardize interoperability. The lack of interoperability can also be attributed to the fact that many small local projects produce results that originate from quite different technical backgrounds (Kubicek & Cimander, 2005). However, there are networked tools that could be used for and assist at enhancing direct and representative democracy (Mambrey, 2004). From the previous arguments, we understand that interoperability in e-participation needs to be investigated first, in order to be ultimately achieved.

Smith et al. (2009) distinguish between lower-level goals (e.g. outcomes of tools, which are usually short-term and measurable), mid-level goals (outcomes of participation) and top-level goals (which create societal impact) of e-participation. This differentiation is crucial for understanding and dealing with interoperability, because the complexity of interoperability is increasing along with the level of the goals. Mid-level and top-level goals are difficult to be captured and are difficult to pass on. Therefore, the focus of this chapter will be mainly on lower-level goals.

This chapter is dedicated to address these aforementioned challenges of interoperability in e-participation. In particular, it aims at:

1. developing a methodological framework (see section “Methodological Framework and Approach for Investigations”).
2. contributing to a better understanding of interoperability in regard to e-participation systems. The section “Background” elaborates on the definition of e-participation and also investigates the lack of interoperability in e-participation.
3. studying the interoperability requirements of e-participation tools and processes per e-participation area (see section “Interoperability Requirements for E-Participation Areas”).
4. deriving a set of recommendations based on the EIF draft version 2.0 layers (European Commission, 2008) in order to guarantee interoperability between e-participation systems (see section “Interoperability Recommendations”).

Based on the requirements and recommendations recorded, existing interoperability standards