



## A business model perspective for ICTs in public engagement

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### ABSTRACT

Public institutions, in their efforts to promote meaningful citizen engagement, are increasingly looking at the democratic potential of Information and Communication Technologies (ICTs). Previous studies suggest that such initiatives seem to be impeded by socio-technical integration barriers such as low sustainability, poor citizen acceptance, coordination difficulties, lack of understanding and failure to assess their impact. Motivated by these shortcomings, the paper develops and applies a business model perspective as an interceding framework for analysis and evaluation. The underlying principle behind this approach is that it is not technology per se which determines success, but rather the way in which the business model of the technological artifact is configured and employed to achieve the strategic goals. The business model perspective is empirically demonstrated with the case of an online petitioning system implemented by a UK local authority. The case illustrates the importance of considering ICTs in public engagement from a holistic view to make them more manageable and assessable.

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### 1. Introduction

Public institutions have increasingly been considering the use of Information and Communication Technologies (ICTs) to foster citizen engagement. In this endeavor, a plethora of available tools have been applied in a wide range of public governance activities (e.g. [Chee, 2008](#)). These initiatives have been driven by the belief that ICTs' potential to enhance democratic processes has yet to be realized ([Chadwick & May, 2003](#)). There is debate about how this can be achieved (e.g. [Dutton & Eynon, 2009](#); [Jaeger, 2005](#)). Within this debate, the concept of technology mediated citizen participation or eParticipation is a new research area within the eGovernment agenda (e.g. [Saebo, Rose, & Flak, 2008](#)).

In addition to participation in policy making, citizen engagement is recognized as an objective covering a broader range of activities such as collaborative service design (e.g. [Chan & Pan, 2008](#)). Public organizations use online means to interact with citizens and provide them with added value elements in different ways from traditional service delivery to political participation ([Janssen, Kuk, & Wagenaar, 2008](#)). ICTs for public involvement are not simply a set of new services but an emerging agenda of public administration processes that seek to foster transparency, openness, and legitimacy (e.g. [Bingham, Nabatchi, & O'Leary, 2005](#)).

Although there are some successful cases demonstrating positive results, public participation initiatives are often impeded by barriers such as low adoption, poor sustainability, coordination difficulties, and a lack of assessment of their impact ([Macintosh, Coleman, & Schneeberger, 2009](#); [Saebo et al., 2008](#)). Projects pursuing citizen engagement are as complex to implement as any other eGovernment services ([Rose & Grant, 2010](#)) and have additional difficulties, including targeting stakeholders and integration within the policy making lifecycle (e.g. [Andersen, Henriksen, Secher, & Medaglia, 2007](#); [Macintosh, 2004](#)). There is also the challenge of how to foster engagement through institutional mechanisms ([Lowndes, Pratchett, & Stoker, 2006](#)). According to [Carman \(2010\)](#), for such mechanisms to be meaningful, significant attention needs to be devoted to public perceptions of procedural fairness. Therefore, organizing and cultivating online engagement entails a wide range of critical socio-technical decisions apart from choices over particular tools.

Previous studies have discussed issues of technology customization within different aspects of eGovernment (e.g. [Fedorowicz, Gelinas, Gogan, & Williams, 2009](#); [Meijer & Thaens, 2010](#)). Further research has built upon the institutionalization and enactment view of technology seeking to explain how technological artifacts are shaped by policies and organizational practices ([Cordella & Iannacci, 2010](#); [Kim, Kim, & Lee, 2009](#)).<sup>1</sup> Nevertheless, little previous research has linked citizen engagement strategy to ICT design and operation ([Irani, Elliman, & Jackson, 2007](#)). Furthermore, the open agendas of online engagement ([Saebo et al., 2008](#)) complement the broader

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<sup>1</sup> Fountain's (2001) technology enactment framework has particularly generated debates on the topic; see for example [Norris \(2003\)](#).

call by Yildiz (2007) for new eGovernment theoretical approaches to enhance our understanding of policies and actors within complex public sector environments.

Indeed, the rapid pragmatic evolution of online interactions fails to make clear or coherent their underlying logic. Importantly, this chaotic appearance has sometimes resulted in them being ignored in public sector organizations. This paper explores the business model (BM) concept, with its power to link theory and practice, as an approach to create opportunities and foster sustainability in public sector technological initiatives. The underlying principle behind the BM concept is that it is not technology per se which can determine success, but rather the way in which the BM of technological artifact is configured so that strategic objectives can be achieved and aligned with practice. The BM concept represents a holistic view useful for connecting internal structure and functions with the external environment and associated interactions. It has been described as an “abstract representation” (Al-Debei & Avison, 2010), a “logical story” (Magretta, 2002), or a “blueprint” (Chesbrough & Rosenbloom, 2002).

For this study, we draw from the unified framework of the BM concept developed by Al-Debei and Avison (2010). We explore its main components within the public sector and particularly examine how BM thinking can enhance the use of ICTs in public engagement. On this basis, a context-specific BM framework is developed which is then empirically applied using the case of an online petitioning system developed by a UK local authority. The practical implications suggest that policy makers can benefit from BMs in order to plan and evaluate manageable institutional mechanisms that will improve the impact of digital governance initiatives.

The rest of this paper is structured as follows. First, Section 2 introduces the business model perspective with respect to eGovernment research and reviews its four dimensions. Section 3 states the research approach adopted for the case study in Section 4, along with the analysis using the business model as a theoretical lens. Section 5 presents reflections and implications of this study, and Section 6 summarizes and develops issues for future research.

## 2. The business model perspective

The business model (BM) concept can be defined as: “an abstract representation of an organization, be it conceptual, textual, and/or graphical, of all core interrelated architectural, co-operational, and financial arrangements designed and developed by an organization presently and in the future, as well all core products and/or services the organization offers, or will offer, based on these arrangements that are needed to achieve its strategic goals and objectives” (Al-Debei, El-Haddadeh & Avison, 2008, p.8).

The BM is important as an effective way of formulating and representing the organization logic behind a particular business or initiative (Shafer, Smith, & Linder, 2005) whether the organization is for-profit or non-profit (Al-Debei et al., 2008). The BM, if visible and explicit, can be useful in defining and understanding which processes and information systems are appropriate for implementation so as to support strategic choices. However, although the BM is recognized as important in the digital age, designing and applying BMs require expertise and knowledge of the multiple domains that the model touches upon.

BM thinking has been employed in many different fields, for example, eBusiness (Timmers, 1998), mobile technology (Bouwman, De Vos, & Haaker, 2008) and eGovernment (Janssen et al., 2008). The latter is discussed in detail in the following section.

### 2.1. Business models for public sector organizations

The usefulness of the BM concept in eGovernment research has been recognized in a number of studies by Janssen et al. (2008) and Janssen and Kuk (2007, 2008). Although the term BM is traditionally

associated with the business world, using it in the public sector context does not imply broader ideas of transferring business-like practices (see Chadwick & May, 2003; Cordella & Iannacci, 2010).

In the public sector, there is no competition to serve the citizens or the requirement to generate profits. However, the need to improve public services and foster new ideas and collaborations is particularly relevant. As in the business world, public sector BMs involve the definition of product and service offerings, internal functions and external collaborations. Public sector BMs attempt to describe the ways of delivering online added value to citizens in various areas from service delivery to political participation.

Janssen et al. (2008) develop a taxonomy for analyzing eGovernment BMs and demonstrate its application in a survey of websites in the Netherlands. They conclude that the concept can be valuable in the public sector for describing service provisions and identifying elements for future improvements. However, understanding the BM constituents when planning for, managing, and evaluating digital governance initiatives is still largely unexplored. Janssen et al. (2008) especially recommend conducting in-depth case studies to: (1) capture different underlying BMs, (2) better understand the elements that make up a BM and (3) link the contribution of those elements to the success or failure of public sector digital activities.

Public sector BMs are of particular interest currently because of the changing way that governments are interacting with their citizens. Technological advancements, such as social media tools, have important implications on public strategies for civic engagement (Meijer & Thaens, 2010). Furthermore, it is recommended that citizens are encouraged to undertake public policy initiatives in a bottom-up manner (Dutton & Eynon, 2009). The next section introduces the BM approach adopted in this study.

### 2.2. An integrative framework of the business model concept

The ontological structure of the BM concept signifies a major part of the BM unified framework developed by Al-Debei and Avison (2010). This structure defines four main dimensions encapsulating sixteen components along with their associations that are considered important for analyzing and designing digital BMs. The framework was developed using a content analysis method and deductive reasoning over a range of previous studies.

In this section, the four dimensions are described and then discussed in the context of digital governance. This discussion synthesizes the BM framework for public engagement which is summarized in Fig. 1.

#### 2.2.1. Offering citizen engagement effects: the value proposition

The *value proposition* is a description of the services an organization offers (or will offer), the elements that intend to add value to the offering, and the nature of the target segment (individuals and organizations) along with their needs. Defining new services is important in terms of name, type, functions, and technical/non-technical requirements. This would help BM designers better understand services and their requirements, thus communicating and delivering them to target segments. The value elements to be conveyed to the target segment also need to be identified and evaluated.

In digital governance initiatives, the main decisions require choices over stages of the policy-making lifecycle and tools to be explored over a wide available range.<sup>2</sup> Decisions over promoting engagement with particular citizens or citizen groups are strategically and operationally important. For example, in the cases reported by the UK Digital Dialogues evaluation exercise, targeted groups include children, older people, journalists, academics, or other key thematic

<sup>2</sup> Typical focus areas include: petitions (Miller, 2009), consultations (Tomkova, 2009), and deliberations (Rose & Saebo, 2010).

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