Embedding persuasive features into policy issues: Implications to designing public participation processes

Habin Lee[a,*], Aggeliki Tsohou[b], Youngseok Choi[c]

[a] Brunel Business School, Brunel University London, Kingston Lane, Uxbridge, Middlesex, UK
[b] Dept of Informatics, Ionian University, Corfu, Greece
[c] Coventry Business School, Coventry University, Coventry, UK

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ABSTRACT

Public participation is one of the most important tasks for policy making processes, and public authorities are lacking ideas on designing public participation processes facilitating active citizen participation. Based on a persuasion theory, this paper examines if policy issues embedded with persuasive features draw more attention, longer elaboration time and more participation. Particularly preference matching, location matching, social proof and authority are identified as persuasive features in e-participation context and propositions on their impacts on citizens' participation processes are developed. A prototype mobile participation tool is developed to test the propositions and tested by 80 experiment participants in the UK and Turkey. The findings indicate that the mixture of central and peripheral features is most effective in drawing participation while single feature has limitations. This study also argues that the design of e-participation tools needs to consider the psychological aspects of citizens for motivating their participations.

1. Introduction

Central and local governments define public participation as a mandatory task of public policy making processes (PMPs). Therefore, it is imperative to engage with citizens and take into consideration their opinions throughout any PMPs to ensure the sustainability of public sector policy implementation. Nevertheless, policy makers often express concerns in the lack of engagement of citizens in the development of public policies. Motivating citizens to participate and engage in PMPs has been a challenging task and public authorities are yet to find satisfactory solutions (Laurian, 2004). Responding to those needs, electronic participation (e-participation) systems have been proposed in electronic government (e-government) research discipline. However, such systems are more focused on delivering information from citizen to policy makers (and vice versa) and the literature lacks studies that provide policy makers with implications on how to motivate more citizens to participate to the public participation (Wijnhoven, Ehrenhard, & Kuhn, 2015). The literature lacks studies that illustrate what strategies are required to influence citizens' cognitive processes in deciding to participate to policy making processes. This paper aims at filling the research gap.

The effectiveness of e-participation tools can be maximised only when the end-users are committed and are having a proactive attitude to the PMPs (Cegarra-Navarro, Garcia-Perez, & Moreno-Cegarra, 2014). Hence, there is a need for innovative e-participation tools that are designed in a way that not only provides to end-users' access to the governmental information and functions, but also persuade them to be involved in the PMPs.

However, contemporary information systems for public participation are limited to persuade citizen to be more involved in PMPs. The most widely adopted approach is utilising the public authorities' web sites in which policy makers provide policy issues and wait for citizens to visit and provide their opinion. According to Janssen and his colleagues' survey, yet majority of web based business models for electronic government lack citizen-orientation (Janssen, Kuk, & Wagenaar, 2008). Macintosh (2004) characterise e-Participation systems for PMPs for the first time by providing the key dimensions of consultation systems. This research clarifies the key functional aspect of e-participation for PMP but not enough consideration was given to citizens' attitudes and their motivation. Conroy and Evans-Cowley (2006) proposed the interaction-based e-participation tools for PMPs but it was also focusing on the interface and functionality of systems. Brown (2012) proposed very advanced type of public participation-based geographic information systems and following field trials. This research emphasised the importance of persuasion process that motivate the citizens' active participation because the research experience because the proposed

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system was not actively utilised by public in the field trial despite advanced methodology and functionality. From this sense, the success of e-participation systems for PMPs not only depends on the functionality of systems, but also the effective motivation strategy to make citizens actively participate in PMPs and the theories in persuasion of human behaviour can provide new perspectives on the success of e-participations systems. This argument is in line with defining electronic government systems as a socio-technological system (Janssen, Chun, & Gil-Garcia, 2009).

The issue of persuading citizen in PMPs has similarity with nudging in behavioural economics that can be used to design policies to stimulate social desirable behaviours (Linders, 2012; Thaler & Sunstein, 2008; Wilk, 1999). Also, this is related to framing strategies that more societal and political awareness and behaviour will be generated (de Bruijn & Janssen, 2017). For example, nudging is used when consumers are confronted with choice situations and their choices are sometimes made based on *automatic and unconscious* processes. Labelling the energy efficiency of appliances and choosing the default for adopting Smart Grid are examples of nudging consumers for socially desirable behaviour. In such choice situations, consumers choose wanted options by policy makers without much elaboration on the options (Ölander & Thøgersen, 2014). However, participating to policy issues require reflective and conscious processes that usually consist of attention, elaboration and behaviour stage (Flanigan & Zingale, 1994; Tam & Ho, 2005) as well as automatic and unconscious processes in the beginning. The literature lacks studies that reveal how nudging techniques interplay with information process stages for making changes on behaviour. That is, we still do not understand how labelling for example affect a persuasion process.

This paper takes elaboration likelihood model (ELM) as a theoretical lens for influencing citizens' participation behaviour. The theory highlights two routes in explaining how human attitude is changed on receiving persuasive messages: central and peripheral route (Petty & Cacioppo, 1981). The ELM, developed by Petty and Cacioppo (1981), is a model that explains how individual's attitudes are formed and changed by focusing on their information processing when they face a message. ELM differentiates two routes of persuasion from each other: the "central route," where a subject considers an idea logically, and the "peripheral route," in which the audience uses pre-existing ideas and superficial qualities to be persuaded. For example, a central route based persuasion can occur when a person logically thinks a message given to speculate the merits of the arguments of the message. On the other hand, another person may find the message not interesting but have more elaboration on the message when a celebrity delivers it. British Government has spent more than £9 m to send a leaflet to every UK household during it EU referendum in 2016. The leaflets were designed to target the central route of persuasion setting out the case for remaining in the EU. On the other hand, leave campaigners the red bus that claims £350 m can be spent for NHS by leaving the EU can be considered to target peripheral route of persuasion by drawing more attention from voters. The ELM of persuasion provides us with a theoretical ground to explore the ways that a software or tool can become an element of a persuasive strategy in electronic participation domain.

While the theory can explain why and how persuasive messages influence human attitude in other disciplines including Marketing, information systems adoption, and social psychology, the literature lacks studies that explain how such persuasive theory is applied to public participation. Public participation has different context from those studies in that citizens are not consumers. The decision to participate requires different factors than to purchase products or services. The former usually do not have direct economic incentives from participation to a survey. How a persuasive theory can be applied to influencing citizens' positive cognitive processes for public participation is the research question this paper aims at uncovering. More specifically, followings are the research questions this paper addresses.

RQ1. What factors play roles in central and peripheral route of persuasion for public participation in the consideration of citizen mobility?

RQ2. How do the factors make impact in citizen participation behaviour?

This study is timely considering the recent advance in mobile computing technologies that made mobility as an important dimension in the design of electronic participation systems. Ubiquitous interactions between public authorities and citizen means that the public participation is becoming more proactive and the participation of citizens can be implemented in the middle of citizens' every-day lives. In mobile public participation context, citizens have opportunities to be in contact with policy makers as soon as they find issues that affect their every-day life through mobile devices. The technical advance now allows policy makers apply persuasive strategy to public participation and the public participation literature urgently requires a study that verifies the value of persuasive strategy for increased citizen participation in policy making processes.

The findings of this study have theoretical as well as practical implications. Theoretically, this study extends our understanding on factors that can be used to persuade citizens to participate to policy-making processes. Secondly, this study provides an insight on how those facilitators can be integrated in the design of information systems to increase citizen participation. Thirdly, the finding of this study extends our knowledge on ELM as the model is applied to electronic participation for the first time. The practical implications of the study are expected to include providing policy makers with new insight on the design of policy-making processes to facilitate more citizen participation.

This paper is organised as follows. Section 2 presents the theoretical background of ELM. Section 3 presents the research design of the study and Section 4 the experiment design and results. Section 5 discusses the academic and practical contributions of the study and concludes the paper.

2. Theoretical backgrounds

2.1. Elaboration likelihood model

This study employs the ELM for embedding persuasion features into e-participation tools as it explains a process of people being persuaded and reveals major factors of persuasion. In particular, the identification of two ways of persuasion routes allows policy makers develop strategies for persuasion by identifying factors that affect two routes.

The Elaboration Likelihood Model (ELM) is a model of information processing and persuasion. Hence, the model attempts to understand how people process information; i.e. the term 'Elaboration' refers to the extent to which people think about issue-relevant arguments contained in persuasive messages. For that purpose, a three stages approach for information processing has been proposed comprising the following stages: attention, elaboration and behaviour as shown in Fig. 1 (Flanigan & Zingale, 1994; Tam & Ho, 2005). This information-processing model suggests that individuals follow a continuum of actions for processing a persuasive message, although not all messages will follow all stages necessarily. Starting from attracting a person's
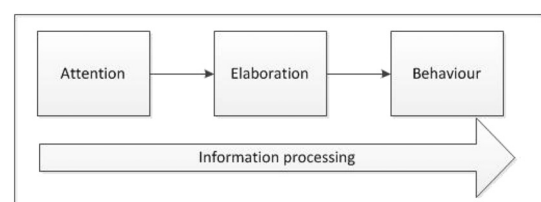

Fig. 1. Information processing stages.