

Citizen-Centric Socio-Cognitive Model for Societal Participation

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Abstract: To enable sustainable development of societies the frameworks through which the services that facilitate participation need to consider various human aspects. Previously created (e)participation (Electronic and non-electronic participation) frameworks have been process and system oriented. In this paper, a novel model draft to describe (e)participation is proposed. The model provides a multidisciplinary theoretical framework to support research of (e)participation and a tool to support activity planning and impact assessment for the public and 3rd sector actors. Keywords: eParticipation, societal participation, framework, model

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1. Introduction

Societal participation refers to activities through which people take part in societal or decision making processes. These can include e.g., voting, discussing politics (Pietilä et al., 2019), political party activities (Harris et al., 2010), community services, (Adler & Goggin, 2005), and contacting representatives (Weber et al., 2003). In this paper, societal participation is regarded as a broad term that also includes latent participation (Ekman & Amnå, 2012) and other activities that have been considered informal and non-parliamentary, e.g., demonstrations, consumer choices, boycotts, and sharing contents online. (Stolle & Hooghe, 2011; Meriläinen and Piispa, 2020; Meriläinen, 2021). eParticipation is a form of societal participation (E.g., Meriläinen, 2021; Pietilä et al., 2019).

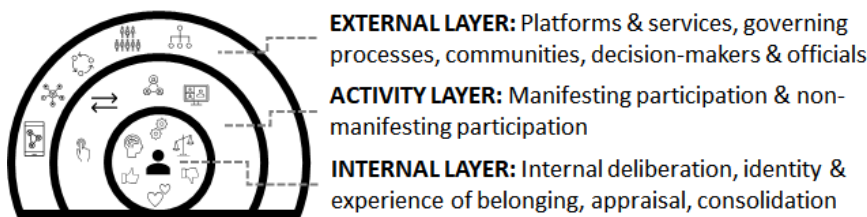
Jaakkola (2020) defines theory synthesis as integrating concepts over different theoretical approaches and models as frameworks which describe relations between constructs. Previous frameworks and models have enabled dissecting eParticipation into separate domains of stakeholders and tools (Kalampokis et al., 2008) and operating on service acceptance (Panopoulou et al., 2018). Also, descriptive models (Sæbø et al., 2010) and taxonomies (E.g., Sæbø et al., 2008;

Susha & Grönlund, 2012) have been created. Moreover, the more traditional ladder-style models for participation (Arnstein, 1969) have been criticized for their lack of applicability (Grönlund, 2009).

eParticipation research lacks models that enable operating on participation through external, activity, and internal levels explicitly. We propose a model which provides a step towards a unified integrative framework for broader conceptualisation of eParticipation and societal participation.

2. Model Proposition

Figure 1: Citizen-centric socio-cognitive model for societal participation



As described in Figure 1, the **External layer** consists of artefacts, which may include individual platforms and services that enable conducting participation. Processes, communities, community members, decision-makers and officials, and agenda transfer also reside in the external layer. **Activity layer** is further divided into manifesting and non-manifesting categories. Manifesting participation denotes all the activities that take form outside an individual and are executed by an individual, such as NGO activities or voting. Non-manifesting participation signifies activities that do not take form outside an individual, e.g., information search and consumption. **Internal layer** refers to the participation-related phenomena, which take place only inside an individual, such as opinion formation and societal participation self-efficacy. The Layers are linked to theory in Table 1.

Table 1: Examples of concepts included in the model and related research (Tentative, incomplete)

External layer	Artefact user experience (Pietilä et al., 2021a;2021b), Transfer of agendas and frames (E.g., McCombs and Reynolds, 2009; Meriläinen 2021; Meriläinen 2014), Artefact / eParticipation service acceptance (Panopoulou et al., 2018)
Activity layer	Latent participation (Ekman & Amnå, 2012), Digital participation (Pietilä et al., 2019;2021a;2021b), eParticipation (E.g., Sæbø et al., 2007), political participation (Pietilä et al., 2021b; van Deth, 2001)
Internal layer	Societal participation self-efficacy (Pietilä et al., 2021a; Bandura, 1977; Solhaug, 2006; Condon & Holleque, 2013), having one's voice heard, opinion formation, appraising new views

The model recognises (e)participation as a complex set of processes that are interconnected with e.g., social, and cognitive resources. As a theoretical framework it enables a transdisciplinary approach by providing a lens to operate on participation through different epistemological and disciplinary perspectives (See e.g., Boon & Baalen, 2019) (Figure 2). Furthermore, the model enables analysis and compartmentalisation of e.g., participation at activity level. This can support for instance activity planning and impact assessment among 3rd and public sector actors. (Figure 3).

Figure 2: Transdisciplinary disposition

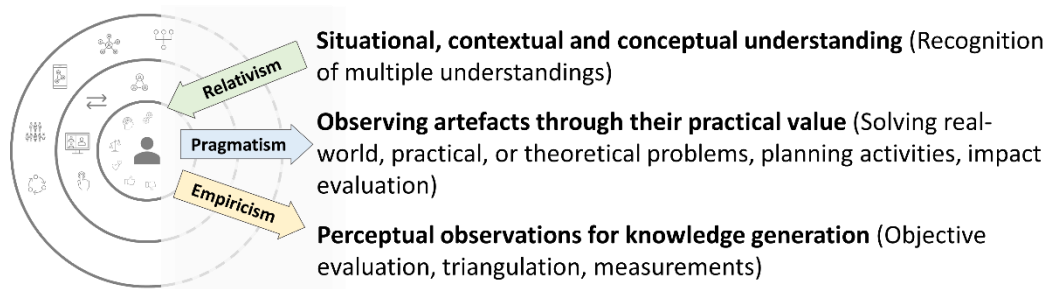
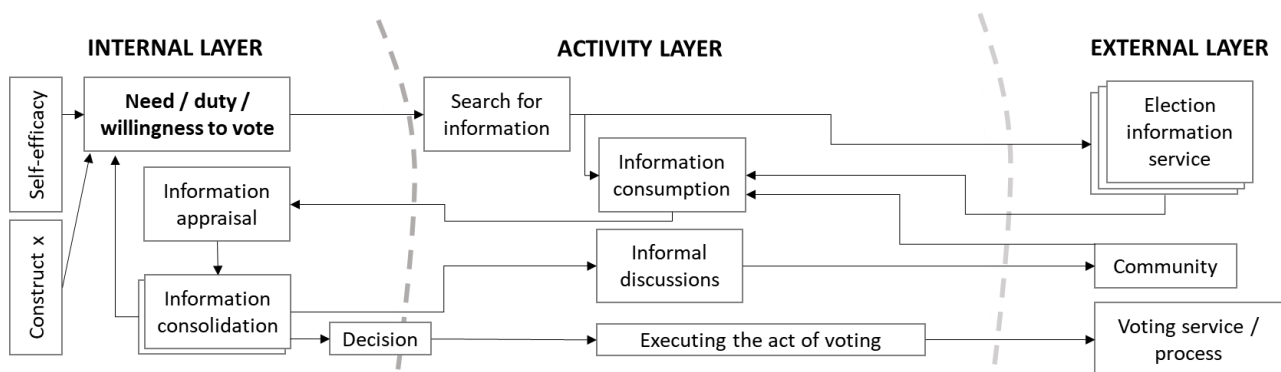


Figure 3: Oversimplification of voting process structured with the model



3. Limitations and Outlook

The model is developed in Finland, in a democratic state, and thus its generalisability and applicability in e.g., developing countries is limited. Wide theoretical elaboration of the included concepts is restricted due to publication page limit. As the model is incomplete, there are various limitations in specifications. In the future, the model is further developed and applied in theoretical and empirical research. Also, the model will be evaluated with public and 3rd sector actors.

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Niina Meriläinen is a researcher at Tampere university, in the Department of Social Sciences, Finland. Niina specializes in multidisciplinary human rights, narratives and power relations research. Niina has worked in numerous national and international research projects as well as a researcher in Finland and in Germany. Her research focused on human rights and political participation of vocational school students, user-based design of digital interactive technologies and power relations in political decision-making.

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Varsaluoma (PhD) is working as a post-doc researcher in the research group of Human-Technology Interaction, at the Unit of Computing Sciences in Tampere University, Finland. Varsaluoma's doctoral research focused on supporting digital product development with user experience goals, usage data analytics and long-term evaluations. He has over 10 years of research experience from human-technology interaction projects in close collaboration with industry in domains such as mobile learning, wearable wellness technology and machinery automation. He has been in the board of SIGCHI Finland association since 2014. Varsaluoma's current research work focuses on supporting youth's societal participation with digital means.

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Kaisa Väänänen is a full professor of user experience (Human-Computer Interaction, software engineering) in Tampere University, Finland. Kaisa leads the research group of Human-Centered Technology (IHTE) in the unit of Computing Sciences. She has extensive teaching and supervision experience as well as leadership of study programmes. Kaisa has 25 years of experience in research related to human-computer interaction both in university and industry. In 1995-2004, she worked at Nokia Inc, in leading positions of user needs research and strategic consumer insights. Kaisa's research interests cover user experience and human-centered design, with emphasis on design research of digital services for advancing sustainability and human-centered AI. Kaisa is an author of >160 peer-reviewed academic publications. She is very active in the international research community, and frequently takes part in organizing conferences related to user

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