### Digitally Supported Participation Processes and Tools to Promote Gender-Responsive Public Spaces

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### **ABSTRACT**

Planning is faced with the challenge of designing public open spaces that meet the diverse needs of everyday life. Gender-sensitive planning can facilitate the development of gender-responsive public spaces by considering the specific needs of different groups. Innovative digital tools are available for collecting and analysing the use of open spaces. However, most of these tools do not integrate group-specific requirements. This article explores what such integration might entail in terms of tool use and the design of the participatory process. It describes the typical planning phases and provides an overview of digital tools classified according to the intensity levels of participation. The application of the tools is then described based on two use cases. The research findings indicate that the primary advantage of using digital tools is the multiple use of the gender-disaggregated data generated. To fully exploit the benefits of digitally supported participation processes, it is necessary to develop seamless tool chains that allow for differentiated data collection and processing.

### **KEYWORDS**

Digital Participation Tools, Gender-Sensitive Planning, Procedural Justice, Public Space Use, Tool Chain

#### 1. INTRODUCTION

The project "DraussenDaheim" (DDH) [German for: "At Home Outside"] aims to test and develop digitally supported participation processes and tools that can ultimately benefit the gender-responsive development of urban public spaces. It takes a group and gender perspective, with a special focus on caregivers, to develop a methodology for differentiated data collection and analysis of open space use. The general applicability of this research approach and the developed tool chains is tested as

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part of a "proof of concept" using the example of two Austrian use cases. The research questions are embedded in the theoretical and practical discourses on gender-sensitive planning, procedural justice, different forms of participation andthe use of information and communication technology (ICT) tools in participation processes.

### 1.1 Gender-Sensitive Planning

Gender-sensitive planning is based on a differentiated, everyday-oriented approach. It assumes that people have different and diverse demands on urban space in their everyday lives. Therefore, gender-, age- and group-specific needs, interests and impacts are specifically examined in all planning steps and tasks. The goal is to create spaces that are as flexible as possible, that can adapt to the everyday demands of different groups, and thus meet as many needs as possible (Damyanovic, 2007; Damyanovic et al., 2013). Gender-sensitive planning focuses on groups of people who are particularly vulnerable or often forgotten in planning. These are people who, for example, have particularly tight daily routines and little scope for action because of their living circumstances, social, cultural, or economic background, health or family situation, or material or time resources (ibid.). Vulnerable populations tend to be less mobile in their daily lives (Joelsson & Ekman Ladru, 2022) and are particularly locally oriented, have less access to high-quality green and open spaces (Honey-Rosés et al., 2020) and are therefore particularly dependent on the quality of their living environment (Reinwald et al., 2019). In this article, the authors apply the extended concept of gender+-sensitive urban planning (Damyanovic et al., 2021; Tummers & Wankiewicz, 2021), whereby gender-, age- and group-specific requirements (e.g. in relation to care work) are taken into account. The term 'gender' indicates that gender is always overlaid by other characteristics, such as age, origin, skin colour, education, profession, disability, sexual orientation or religion, and should therefore be understood intersectionally (Verloo, 2009). Only some of these attributes and their interaction can be discussed in this research paper.

### 1.2 Different Concepts of Justice

Amidst the increasing demands for more environmental and social justice, urban public spaces in cities have a key role to play. They are seen as sites of public engagement and are constantly shaped and re-produced through various social interactions.

Within the sphere of urban planning, social justice is influenced by three different dimensions: distributive, procedural and recognition-based conceptions of justice (Schlosberg, 2007). Distributive justice corresponds to equity and ensures fair distribution and equal access to urban resources (Rawls, 2005). Furthermore, procedural justice (Fainstein, 2010) refers to planning processes and fair participation opportunities within these processes. Finally, recognitional justice involves the recognition and appreciation of different interests and needs (Nussbaum, 2013). This article centres on procedural justice, specifically the potential for engagement in participation processes through the aid of digital tools.

### 1.3 Forms of Participation Processes

Taking a closer look at procedural justice and thus the question of who has a say in participation processes means an equally informed examination of the nature of participatory processes. Various forms of participation can be categorised based on different criteria. Schoßböck et al. (2018) offer classification options according to emergence (top-down or bottom-up) and legal basis (formal and informal procedures).

Various authors, including Rowe and Frewer (2000, 2005), categorise participation processes based on the form of communication or type of information flow. The spectrum spans from one-way communication through active gathering and consideration of knowledge and opinions (consultation) to mutual exchange and the joint formulation and development of goals (participation). This classification can be found in several models, particularly in practical guidelines (see e.g. Arbter, 2012; Fels, 2015;

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