Tourism resort users' participation in planning: Testing the public participation geographic information system method in Levi, Finnish Lapland

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ABSTRACT

It is a challenging task to get tourists involved in tourism planning. In addition, it is often believed that local authorities and tourism companies have an adequate understanding of what tourists prefer or need and how local people's interests can be integrated in tourism planning. Regardless, the tourism business is simply dependent on tourists – whether they want to come to a resort again or not. This article examines how the method of internet-based public participatory geographic information system (PPGIS) serves in gathering tourists' and locals' views about their favourite places at the Levi tourism resort in northern Finland. By using the PPGIS method it was not only possible to find clusters of favourite places, but also several single places of interest. The study revealed technical challenges in using PPGIS software. The quality and usability of the information and the method are discussed in relation to tourism planning.

1. Introduction

Tourism resorts represent a specific challenge for planning since they often exist as enclaves in the middle of rural areas. Resorts have many stakeholder groups which differ from the surrounding regions and may be difficult to define. When a tourism area is in a developing process, one challenge concerning the sustainable issues is the speed of growth (Swarbrooke, 2005). How is it possible to plan and build tourism areas and their infrastructure in a way that takes into account ecological, economic, social and cultural sustainability? How is it possible to make sure that local people and stakeholders have opportunities to affect the issues that concern them? The issues were stressed by the World Tourism Organization (1998) in its envisagement for managing "all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems". In other words, managers of tourism resorts are expected to make socially sustainable choices when striving for growth.

The tourism business's focus on the winter season and snow-based activities creates big significant challenges for several reasons (e.g. Baum & Hagen, 1999; Lundtorp, Rassing, & Wanhill, 1999) compared to the snowless seasons (summer and autumn in Finnish Lapland). The capacities of accommodation and other services are maximized during

fully booked seasons, however they are underutilized during summer. Routes are mainly planned for the needs of winter activities (cross country skiing, snow-shoeing, snowmobiling), even though the need for the routes is different in snowy versus snowless seasons. Finally, the supporting infrastructure of the resort that serves snow-based activities (e.g. ski lifts and slopes) may be aesthetically unappealing during other seasons. Moreover, due to the seasonality of tourism, it may be difficult for the tourists and tourism workers to become attached to an area.

Usually, experts', entrepreneurs', and nowadays more often also local people's needs concerning resort development are inquired about, but tourists and long-term visitors, such as second home owners, are not often taken into account in a destination development process (Hall & Müller, 2004; Rinne, Kietäväinen, Tuulentie, & Paloniemi, 2014). However, their silent knowledge can benefit planning processes.

Tourism has become an important livelihood for local people. At the same time, the areas where tourists visit have meanings in traditional livelihoods, local history and culture; hence residents' opinions should be widely heard during the development process, as Brown and Weber (2013) argued. According to the principles of community-based tourism (e.g. Blackstock, 2005; Jamal & Getz, 1995; Okazaki, 2008), collaboration between local inhabitants, decision makers, and other stakeholders is essential to improving socially sustainable tourism.

In order to attract tourists to the area repeatedly, it is important to

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listen also to tourist's wishes and voices in tourism area planning. Tourists who return to the same places can develop strong attachments to them (Oppermann, 1998; Tuulentie, 2007; Yuksel, Yuksel, & Bilim, 2010). They also gain significant practical knowledge about the use of the areas around the resorts. Coming from different backgrounds, tourists represent, however, a heterogeneous group having ideas and wishes that are not that easy to comprise in tourism area planning.

There are several participatory planning approaches on tourism growth available to enhance sustainable tourism development (e.g. Murphy, 1988; Selin, 1999). Even though there have been many attempts to involve tourists in planning processes, e.g., through public meetings, hearings, workshops, surveys, personal and focus group interviews (see Randolph, 2004), and mapping techniques (e.g. Uusitalo, 2010; Wolf, Wohlfart, Brown, & Lasa, 2015), one problem has usually remained. The participatory methods have not reached a wide audience.

One method designed to involve more people is a public participatory geographic information system (PPGIS), which makes it possible to locate experiences, discussions and opinions on a map. PPGIS is a sub-branch of geographic information systems (GIS) and has been used a lot in different types of land use planning (see McCall 2015a; McCall 2015b).

This article asks: *How does PPGIS succeed in (1) reflecting users' favourite places* and *(2) collecting users' knowledge on a nature-based tourism resort?* These questions are addressed specifically to the discussion of what PPGIS contributes to tourism resort planning in sparsely populated areas.

2. The idea of tourists' participation in planning

The issue of public participation in planning has been on the agenda for a long time, but more so during the last three decades. The so-called communicative paradigm (e.g. Healey, 1992) points out that planning should be inclusive and interactive, and the basic idea is that people have to have a say in decisions that affect their lives (Hanna, 2000, 2005). This is nowadays a widely shared principle, which has also been applied to legislation (see e.g. Finnish Land Use and Building Act, 132/1999; Lane, 2005).

Arnstein's (1969) seminal work on the ladder of participation with three levels – non-participation, tokenism and citizen power – has been developed since its presentation, and shortcomings such as ignoring the existence of different relevant forms of knowledge and expertise have been discussed (Tritter & McCallum, 2006). Ideally, the attempt has been to proceed from simple one-way information providing to support decision-making towards a two-way process of dialogue and empowerment of communities (Hanna, 2000). Worries have been raised in relation to who are the relevant participants and whose voices are heard in the participation process (Marzuki, Hay, & James, 2012; Reed et al., 2009). Moreover, the role of public participation in planning is place-specific and largely determined by the nature of the planning enterprise being undertaken (Healey, 2004; Lane, 2005). Also, the role of delivering information and knowledge is crucial (Bruckmeier & Tovey, 2008).

Participation in tourism planning can be seen as a distinct case since tourist resorts are often located in rural areas and differ in character from the surrounding areas with their seasonal population and seasonal use (Saarinen, 2003; Tuulentie & Mettiäinen, 2007). However, participation is highlighted through adaption of a sustainable planning approach, which integrates physical planning into the community planning tradition and provides a new approach to economic growth of resorts (Hall & Page, 2006).

Community-based tourism emphasizing local control has been studied a lot (see e.g. Dredge & Jamal, 2015; Jamal & Getz, 1995; Okazaki, 2008) and the idea is widely shared that communities, especially in developing countries, must have a say in the process of development. In order to pass the control over the uses and benefits of key resources to

locals, the tradition involves also communities and local stakeholders in tourism development and management (Kauppila, Saarinen, & Leinonen, 2009; Scheyvens, 1999, 2002). The process empowers local and often small-sized providers of nature-based activities (Ateljevic & Doorne, 2000; Lundberg & Fredman, 2012). Additionally, the values, interests and preferences of users (i.e. residents and tourists) are taken better into account.

The need to involve residents in planning is generally discussed with two main arguments: 1) their participation can enhance the legitimacy of the planning institution and 2) produce knowledge needed for creating well-informed plans (Faehnle, 2014; Forester, 1993). Especially the latter argument applies to the tourists' views as well, since tourist resorts are specific entities characterized by a small permanent population in the off-season, but a high amount of users during the peak season using the environment in various ways. Thus, the question of relevant participants is more complicated than in a "normal" community. The focus of this study is, firstly, to inform tourism entrepreneurs and resort planners about the tourists' actual uses and preferences concerning nature areas around the resort, and, secondly, to make it possible for regular tourists and second home owners to include their views in the planning process.

3. PPGIS as a tool in tourism resort planning

As Longley, Goodchild, Maguire, and Rhind (2001), 2) have argued, knowing *where* something happens is critically important. When we know which place we are talking about, discussions are more fluent and phenomena and opinions do not just happen abstractly somewhere. GIS enables the interactive mapping of the attributes of an area and this information can be utilized in the planning and decision-making processes (Boyd & Butler, 1996: 380; Heywood, Cornelius, & Carver, 1998: 12). GIS development originated from an interest in managing the urban environment and balancing competing uses of environmental resources. In other words, GIS includes two main aspects, which are location, i.e. information telling where something is, and attribute information identifying the location (Star & Estes, 1990). GIS offers a useful tool to compare different types of data through visualization but is not an automatic solution for all land use planning (Ball, 2002).

A need for participatory planning and participatory GIS has been born from the critique saying that the opinions of local people are not adequately taken into account in decision making (National Center for Geographic Information and Analysis, 1996). The aim of the PPGIS is to engage "the public in decision-making through its goal to incorporate local knowledge, integrate and contextualize complex spatial information, allow participants to dynamically interact with input, analyse alternatives, and empower individuals and groups" (Sieber, 2006: 503).

The power of PPGIS is to describe places which have some subjective meaning for a respondent without trying to identify physical landscape characters (Brown, 2016). Through PPGIS it is possible, for instance, to locate and make visible important places in the area (Alessa, Kliskey, & Brown, 2008; Brown, 2004). The ideal is that by using the map-based methods silent and loud voices will be heard equally (Brown, 2006). Consequently, the issues which are handled by PPGIS are often also emotionally charged and hence it is important to protect the anonymity of responses when sensitive topics, e.g. those concerning minorities, are in question (Ball, 2002).

PPGIS methods have been used in hundreds of city and rural area studies and plans (see McCall 2015a; McCall 2015b). Examples of PPGIS-studies include natural resource management (Edwards & Smith, 2011; Kangas & Store, 2003), regional planning (Brown, Weber, & de Bie, 2014; Hansen & Reinau, 2006), conflict management (Brown & Raymond, 2014; Gudes, Stern, & Svoray, 2004), socio-ecological hot spot mapping (Alessa et al., 2008) and conservation planning (Pocewicz, Nielsen-Pincus, Brown, & Schnitzer, 2012). Although the possibilities of using GIS in tourism planning have been recognized years ago (Bahaire & Elliott-White, 1999; Boyd & Butler, 1996), PPGIS