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Geomedia Perspectives for Multiple Futures in Tourism Development

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Abstract

This article draws on five participatory action research studies to address how geomedia theory can induce multiple imaginations of the future. Critical future research advocates that societies need to collectively create visions of multiple futures, transcending the single rational (neoliberal) future path. The studies were conducted in collaboration with rural communities and local tourism entrepreneurs who were exploring geomedia technologies to develop destinations. The tourism sector uses geomedia technologies but often depends on commercial platforms that seek upscaling and generalisation, becoming detached from local practices and place-specific settings. By applying critical geomedia studies, we problematised the relationship between people, place, and technology in the present, the past, and the future. Geomedia studies provided a critical lens that provoked future visions beyond preformatted technological infrastructures and media practices. The participants were asked to engage with complex issues such as access, restrictions, equality, authority, and legitimacy in relation to the specific place, bringing forth a multitude of local assets and narratives envisioning alternative geomedia technologies. As a result of this process, participants paid greater attention to local assets, gained a more critical approach towards technology, and dared to use digital solutions in a more visionary manner. We, therefore, argue that researchers need to engage with society to bypass hegemonic geomedia representations. By illustrating how geomedia theory can be utilised within community development, we provide a framework for how collaborative research can more explicitly engage with local actors' thoughts and imaginings of possible futures.

Keywords

collaborative research; destination development; geomedia; multiple futures; participatory action research; representations

1. Introduction

This article draws on five participatory action research studies conducted in rural Sweden to address how geomedia theory can induce multiple imaginations of the future. Critical future research advocates that societies need to collectively create visions of multiple futures beyond the single rational (neoliberal) future path (Goode & Godhe, 2018). The intention is to defamiliarise unquestioned, sedimented, or "common sense" discourses of the future and shake them up to broaden the field of possibility. Enabling multiple alternative futures is considered key for societies to handle the urgent transition towards a more sustainable planet and society (Fitzgerald & Davies, 2022). In this thematic issue, the authors are asked to bring insights into our geomedia futures to open up multiple imaginative possibilities. With our contribution, we illustrate how critical geomedia studies applied in design processes can enable people to collectively (re-)imagine geomedia futures. The aim is to capture the opportunities of future-oriented design processes of geomedia technologies more effectively, together with five communities, by highlighting the potential of research-based interventions. The design process utilises critical design to reformulate the future (Jakobsone, 2017). This critical design stance critiques how designers work within an ideological (capitalist) context of singularity, efficiency, and economic gain, thus contributing to negative effects on social and environmental issues (Dunne & Raby, 2013). Through critical design, researchers and designers engage with the social, cultural, and ethical implications of design, thereby enhancing the potential to reshape the future (Malpass, 2015).

Our study emerges out of a critique of the design, use, and implementation of geomedia technologies, especially within the tourism sector, which often lacks consideration for the effect on place (Munar et al., 2013). Within the tourism sector, the use of geomedia technologies has grown in the last decade, with the aim of creating new and enhanced experiences for visitors (Pai et al., 2020). However, investments in technological development within tourism have gravitated toward an urban-centric and technology-driven paradigm (Cowie et al., 2020). The tourism sector is becoming dependent on commercial platforms that seek upscaling and generalisation, where the solutions are detached from local practices and place-specific agendas (Dwyer, 2017). Investment and technological development seldom harmonise with the values and aims of rural small tourism actors as lifestyle businesses with few employees and a high interest in sustainability (Cunha et al., 2020). Being situated within a rural setting makes tourist entrepreneurs dependent on local assets and highly entangled with the local community, where there is no clear-cut division between tourism, culture, recreation, and community-building (Rosalina et al., 2021). Therefore, there is an urgent need to detach from the preformatted discourses of geomedia technologies and be open toward more collectively created possibilities where local settings, values, and culture come to the forefront. Geomedia theory provides crucial perspectives into the design process to allow a community to go beyond unquestioned discourses and envision a variety of future media solutions, giving the place an "extended agency" (Adams, 2017).

This article is based on five studies in the county of Värmland, Sweden, conducted from 2016 to 2021. Through participatory action research, together with local communities, we explored methodological interventions in the *design processes* of geomedia technologies, not geomedia technologies as such. Each community was represented through tourism businesses, actors within the culture sector, organisations, interest groups, residents, and stakeholders. Participatory action research forms the methodological framework and is commonly used in futures research (Floyd, 2012) and future-oriented design processes (Ollenburg, 2019; Ramos, 2017).

The first section of this article presents our theoretical foundation. Subsequently, we demonstrate our participatory action research method and how critical geomedia studies guided in-depth studies of each place (also referred to as our five cases in this article). In the results section, we draw on examples from the studies to illustrate the process and present the outcomes. In the final section, we then address how geomedia theory studies give places an "extended agency" (Adams, 2017), contributing with additional perspectives, nuanced understandings of representations, and even uncomfortable insights to the design process—as asked for by critical future studies (Fitzgerald & Davies, 2022). We thereby offer insights and guidance on how researchers within geomedia studies can more explicitly engage with local actors' thoughts and imaginings of possible geomedia futures.

2. Theory

Media technologies are intricately woven into the fabric of places, deeply embedded in the social construction of space (Fast et al., 2018; Jansson, 2020; Kanderske & Thielmann, 2019; Wilken & Humphreys, 2021). An illustration of this integration is the commonplace use of positioning applications on smartphones, facilitating not only location-based services but also co-created experiences (Fast et al., 2019). Therefore, geomedia technologies in tourism have rapidly developed, with technology-mediated tourism experiences and place-based digital services for visitors (Braunerhielm & Ryan Bengtsson, 2023). Our five participatory action research studies originate from the core thinking of geomedia studies: that place holds a role in organising and giving meaning to mediated processes and activities, and thus the other way around—media's role in organising and giving meaning to processes and activities in space (Fast et al., 2018). Space is understood to be produced in constant negotiation between politics and everyday practices, entangled with its past, present, and future (Lefebvre, 1991). Each locale possesses a unique socio-cultural identity crafted by human interactions (Massey, 2005). In the context of the five studies drawn upon in this article, considering the way a place is represented (including its digital representation) through a critical geomedia theory context that emphasises the complex interweaving of place and media technologies has the potential to inform collaborative technological development (Fast et al., 2018). The geographical context becomes a pivotal consideration, expanding the perspective to encompass social, cultural, and geographic dimensions (Adams, 2017; Cowie et al., 2020).

Digital technologies facilitate reshaping place identities through idealised images (Ash et al., 2018). For example, Wilken and Humphreys (2021) highlight how place is re-negotiated through the social media platform Snapchat, recognising how the platform contributes to the commodification of place. Brantner et al. (2024) identify how Google's image search prioritises images with marketable properties over local assets and diversity by studying the Google image ranking of images of the British coastal town, Great Yarmouth. These studies are examples of how media platforms play into place-making and, therefore, pinpoint the risk of the tourism sector becoming dependent on commercial platforms seeking upscaling and generalisation. This also suggests that local actors lose control over the development path and information cycle (Morozova et al., 2021).

In recent years, critical research has heightened awareness of the diverse impact of digital media. Studies have, for example, delved into how platforms such as Airbnb contribute to gentrification, over-tourism, and tensions between tourists and residents (Gössling & Michael Hall, 2019; Ioannides et al., 2019; Krotz, 2017; Mermet, 2017). Despite the geographical positioning inherent in geomedia technologies, local conditions

and unique local assets are rarely highlighted as a resource in developing technologies or for inclusion in content. While technological advancements influence travel and tourism at large, they also shape local contexts. Notably, scholars advocate for reshaping digital tourism development by emphasising historical context, reflexivity, equity, transparency, plurality, and creativity (e.g., Alvarado-Sizzo, 2021; Gretzel et al., 2020; Sigala, 2018). The emerging development, therefore, shows how media technology is shaping and reshaping spaces (McQuire, 2016). This implies a need to reflect on the shaping and how it can be turned into possibilities (Murray, 2012). Our perspective aligns with this, emphasising that a deeper understanding of media technologies can broaden narratives, introduce novel experiences, and foster inclusivity and sustainability. We, therefore, need more knowledge of how media technologies are "taking place" at tourism destinations, and as defined by Adams (2017), therefore, are shaped by space. In order to understand the possibilities geomedia technologies entail, the focus is set on the geographical place and its actors and how they are integrated into multiple futures.

Including geographical contexts in the development of geomedia technologies allows us to address each place's social, cultural, and geographic dimensions. We give the place agency, acknowledging how action, knowledge, and identity are formed in relation to and with place (Adams, 2017). Adams (2017) argues that places have agency manifested in, for example, the role they play in how we act, think, learn, and identify ourselves. Critical design scholars think along the same lines, arguing for the engagement with perspectives that are "more-than-human" (see, for example, Akama et al., 2020; Jönsson et al., 2021) to deal with pressing social and environmental issues (also see Haraway, 2016). Design inevitably works with the future and, therefore, plays a role in shaping our future; thus, with design, we also have the ability to reconfigure the future (Malpass, 2015). Critical design has emerged with the need to expand design thinking beyond affirmative design within a neoliberal context of efficiency and economic growth (Dunne & Raby, 2013). Critical design promotes the use of critical concepts within development processes to question and (at least try to) challenge preconceptions and current hegemonic understandings.

Critical design thinking can thereby contribute to more radical visions of possible futures (Jakobsone, 2017), which aligns with critical future studies' emphasis on the urgent need to consider multiple futures (Goode & Godhe, 2018). Critical future studies seek to go beyond "common sense" discourses of the future, question predefined future paths, and allow people and societies to broaden the field of future possibilities (Inayatullah, 2007). Applying critical design, we argue that a critical geomedia perspective gives provocative insights that provoke multiple visions of geomedia futures. We, therefore, argue that we need to problematise representations of a place to reconnect local practices and place-specific settings (Dwyer, 2017; Jansson, 2020).

Central to and in line with critical design (Goode & Godhe, 2018; Jakobsone, 2017) is the need for societies to collectively create multiple visions of the future, which demands a collective process. As Young (2005) argues, the aim is to allow humans to understand that they collectively have the capacity to steer history and their own future by engaging with questions of the future. A common way to engage with society in order to induce empowerment and capacity for change is to conduct participatory action research. We apply geomedia theory in this context, which is used as a theoretical lens and approach in our method. Geomedia enables us to take a holistic approach to understanding a place and actors within the place, its history, its resources, different forms of representation, and the use of media technologies. This approach and the use of geomedia is what we refer to as "geomedia sensibility" (Braunerhielm & Ryan Bengtsson, 2023). By including

local conditions such as physical and social elements, as well as actors as stakeholders and users, we are adding an inclusive and sensible aspect using critical questions. By engaging with critical questions on representation, we are furthering the participants' comprehension of how media technologies participate in the co-creation or reproduction of places. We also conceptualise geomedia sensibility (Braunerhielm & Ryan Bengtsson, 2023) to initiate these critical and reflexive questions early in the design process, as well as questions that could make aspects of collaboration visible in the process. The critical questions raised with a focus on representation were: How are these places historically and presently represented? What part of the history is represented? What is included or what is excluded in the digital representation? These questions enable a more reflective, nuanced, and spatially sensible understanding of the design processes of geomedia technologies.

3. Method

In our research, we apply a participatory action approach (Ingold, 2018). It implies conducting research in close collaboration with businesses, politics, and organisations—actors outside academia—enabling researchers to go into depth with a problem (see, for example, Haraway, 2016; Ren et al., 2017). Ultimately, this collaborative approach aims to empower participants to be actively involved in community development (Brydon-Miller et al., 2003). Action research can involve both quantitative and qualitative data collection where the investigation is centred around change rather than generalisable conclusions (Coghlan & Brydon-Miller, 2014). Participatory action research provides an established methodological framework to conduct collaborative studies and development. However, it does not specifically address working with multiple options, perspectives, and future visions. Critical design, therefore, guided us on actively including critical geomedia perspectives in the design process (Malpass, 2015). The contribution of critical design is twofold. It first generated place-specific knowledge in the collaborative process, ensuring it became anchored in the local context. Secondly, we were able to identify local examples that induced discussions on issues such as access, restrictions, equality, authority, and legitimacy.

Participatory action research guides the researcher to work in cycles, where a cycle includes inquiry, action, and reflection. Knowledge and perspectives produced within each cycle form input to the next cycle (Brydon-Miller et al., 2003). Each of the five studies consisted of seven cycles. The first cycle mapped the various actors within the place and conducted in-depth studies of each place. The in-depth studies provide research-based knowledge and additional perspectives to the following cycles, in accordance with critical design (Ollenburg, 2019). Thereafter followed four cycles of collaborative workshops (Cycles 2–5) with the local community. In the first workshops (Cycle 2), local and regional public organisations participated to build joint knowledge about the place. This gave input to the following workshops (Cycle 3), where local entrepreneurs and associations participated, adding further knowledge. In the next cycle (Cycle 4), users (potential visitors and locals) explored user perspectives and experiences utilising the knowledge production from previous cycles. The final workshops (Cycle 5) gathered a smaller group of key actors, creating concepts for future prototypes and testing. In the final cycles, we developed concepts and evaluated the full process (Cycles 6–7). When all the studies were conducted, we performed a final and eighth cycle, drawing conclusions from the individual studies. Table 1 presents an overview of the collected data within each cycle.

Table 1. Data source and collected data.

Method	Data collected	Sampling and material
Document study (Cycle 1)	Local history, culture, the conditioning landscape, and natural resources.	Written local material, such as books and reports. Archives at local heritage organisations. Visual material, such as old photographs. Websites describing the local history.
Qualitative study of media presence (Cycle 1)	Digital representation of the place.	Social media, such as Facebook, Instagram, YouTube, Google Maps, and Twitter. Hashtag search related to each place.
Qualitative interviews (Cycle 1)	On-site, face-to-face interviews with visitors, entrepreneurs, stakeholders, and locals at each place.	There were 66 interviews, 40 of which were with Swedish citizens and 26 with visitors from other European countries. The interviews were 20–60 minutes long.
Visitor survey (Cycle 1)	Qualitative visitor survey on-site.	Survey distributed by the destinations. 54 answers.
Workshops (Cycle 2–5)	Creative, collaborative work with different groups.	Observations, written notes, photographs, and video documentation. Each workshop lasted around four hours and was conducted locally on-site. Fifteen workshops with 161 participants were recruited using a snowball method among entrepreneurs and the research team.
Evaluation questionnaires (Cycle 6)	Qualitative evaluation questionnaires to participants in workshops.	Evaluation questionnaires distributed after each workshop. 67 answers.
Focus group discussion (Cycle 7)	Qualitative evaluation with entrepreneurs and stakeholders.	Six focus group discussions (20 participants) after the process.

3.1. The Five Cases

The studies were conducted at five different sites in the county of Värmland, Sweden. The first two were the mining village Långban and the Klarälven River Valley. Långban is an old coal mining area that has been converted into an open-air museum. It is one of the places in the world where you can find many different minerals and a rich flora and fauna. The Klarälven River Valley is located in the northern part of the county, where the river was previously used for timber transportation. Nowadays, the tourism business Vildmark i Värmland attracts international visitors who learn how to build timber rafts and float down the river. The other three studies were conducted in a nature reserve, Glaskogen, an area with a long history of forestry and manufacturing that today attracts nature-based tourism; the waterfront of Kristinehamn by Lake Vänern, a resource for tourism with a long maritime tradition; and the last case is the cultural scene around the municipality of Sunne, with a long tradition of storytelling hosting, for example, the home of Nobel prize laureate in literature, Selma Lagerlöf.

3.2. Fieldwork and Analysis

Each study began with in-depth investigations of the place itself, both past and present. The investigation of the past consisted of historical documents such as photographs, texts, films, and maps, as well as more recent material such as reports, plans, and marketing materials. The material was provided by local actors and found

by searching archives and recently published material. The historical investigation mapped the places' history, culture, and natural landscape. Engaging with the past through a critical and reflective mindset allowed us to identify untold stories and perspectives, adding to the already-told local history. The material was mainly analysed in terms of representation of place, asking questions such as: Who represents the local past? In what way are different social classes presented? Is the history of both men, women, and children portrayed? In what way have the landscape and natural resources formed the place? Are there groups that have been excluded from the historical descriptions? These questions were crucial to avoid re-producing history, which would have been the case if the historical material had been used without a critical gaze upon it.

The present and the interconnection between the present and the past were investigated through qualitative interviews, surveys, and contemporary digital representations (see Table 1). Interviews were conducted with residents, public actors, and tourism businesses. Residents connected to the predominant local industries, such as mining and forestry, and local cultural and natural heritage, were asked about the local history. Other respondents were public actors from municipalities, representatives from non-profit organisations, the county administrative board, and tourism businesses (including guides and seasonal employees). They were asked about their views on the present situation for these destinations, their businesses, and their perceptions of future development. In addition, visitors were asked to participate in a web-based survey and qualitative face-to-face interviews on-site. The survey was distributed to visitors by email from the entrepreneurs over a few weeks. The qualitative interviews with visitors were performed on-site (with one exception). Through the visitor study, an understanding of these places as tourist destinations made a valuable contribution to the research results. The interviews were transcribed and, together with the open-ended questions from the questionnaires, analysed using thematic analysis.

Digital representation was investigated by collecting social media data (Facebook, Instagram, and YouTube) and digital maps (Google and local map apps). Here, we asked questions such as what is represented and what is not. What is the relation between the digital representation and the place? The digital representation inquiry gave insights into the role of media representations in our understanding of a place and brought attention to inequalities and misrepresentations. These studies also gave insights into the implications of the implementation of geomedia technologies.

The thematic analysis aimed to find nuances within the main themes of representation of place and digital representation. Through a critical geomedia perspective, we identified gaps in the representations and additional themes and perspectives with the capacity to shake up preconceptions in order to broaden the field of possibility in accordance with critical future research (Goode & Godhe, 2018). Including the results from the in-depth inquiries into the future design process also contributed to perspectives to understand the implications of a design (Malpass, 2015).

Analysing the stories of different groups of actors resulted in a theme of, for example, invisible boundaries between locals and visitors. Analysing the different representations gave us insights into the relation to time, with some places lacking a connection between the present and history, while other places struggled to connect historical resources to the present. Another theme that emerged concerned marginalised perspectives on gender and representation of place, both historically and in the present time. Central was a continuous discussion and reflection on the preconceptions and interpretations of the research group (Forsythe, 1999) in collaboration with various actors involved. This aimed to empower participants and build

collective knowledge, including during the analysis process. The analysis from our fieldwork constituted new perspectives for further development, and the critical geomedia lens provided central aspects of representation when conducting the workshops. So, the results from the initial in-depth studies of each case gave us multiple perspectives (Murray, 2012) to include in the design processes, where theoretical perspectives, research results, and participants' knowledge were mobilised (see further in Ryan Bengtsson et al., 2022). This shows how our focus on representation exemplifies and captures part of the process and part of all the results that the process has produced. The main empirical findings from the in-depth studies of the five places are discussed below.

4. Empirical Findings

We found that a common trait of our cases is their disconnectedness from parts of their own local history. The norms of the past of what was a "respectable surface" are still lingering on in the stories of today. What has been perceived as too sensitive, shameful, or perhaps not interesting enough is not shown. There is an emergent pattern of a lack of representation of women, children, and the working class. Moreover, stories of social life and these places as communities are overseen, as the storytelling predominantly focuses on economic and industrial history. The findings from these cases are all examples of the argument put forward of the importance of problematising representations of a place and its specific settings (Dwyer, 2017; Jansson, 2020).

Furthermore, a clear pattern emerged where representation at these places in the past was mirrored in geomedia technologies used by local actors today. The narratives in historical documents and interviews showed the same type of representation (or lack thereof) on websites, social media activities, guided tours, and so on. These findings align with other geomedia researchers, stressing the embeddedness of media technologies in socially constructed spaces (Fast et al., 2019; Jansson, 2020; Kanderske & Thielmann, 2019; Wilken & Humphreys, 2021). Making these insights visible to the participants was part of a collective learning process, where they jointly "re-discovered" these patterns of representation and used this knowledge in the following workshops.

Our fieldwork was inspired by the idea of places as unique socio-cultural communities (Massey, 2005) and the fact that more knowledge is needed about rural areas and their challenges for future development (Cowie et al., 2020). Using the geomedia perspective lens, we found a common lack of representation in each of the five cases, i.e., selective storytelling of certain parts of the local history and visitors being treated as mere observers. However, the place-based method (inspired by, for example, Massey, 2005; see also Adams, 2017) also revealed unique local assets and stories untold. Therefore, in order to understand the complexity of applying a critical design to design processes (Jakobsone, 2017; Malpass, 2015) suitable for different communities, the sections below summarise examples of these discoveries in each case. Thereafter, we show how this knowledge was transferred to the local actors and how these insights contributed to practical outcomes.

4.1. Långban

Findings that became specifically relevant in this case were that the Långban museum lacked representations of the lives of women and children in the village despite their presence in historical documents. Women

and children were "invisible" in the story of Långban. It also became evident that individual male inventors, engineers, entrepreneurs, and business owners were well-represented in the museum. In contrast, people from the working class were represented to a lesser degree and then in a more generalised way. Except for the odd photographs of groups of workers, the exhibitions at the museum showed the mining from a male, upper-class, and technical perspective. The observation of the lack of representation was also mirrored in the digital representation, and the story was repeated on websites and social media.

4.2. Klarälven River Valley

We found that the history of the forestry industry and timber logging on the Klarälven River was excluded from the storytelling to visitors (despite being the main reason for the timber rafting business), both physically and digitally. In this case, the connection to history and the context of the river as a means of transporting logs was missing. The destination excluded the relation between past and present as a ground for putting today's experience in a wider context. The story of timber logging was sometimes told to visitors—if the guide had the local knowledge and there was spare time before the visitors' task to build their own raft and travel downstream. Then, they would focus on the male job of handling the logging and not the wider effects on the local area, fostering generations of independent women, as the men were absent for long periods, working in the forests.

4.3. Kristinehamn

Visitors at the Kristinehamn waterfront often felt a sense of disconnection and exclusion from local information, coupled with a feeling of marginalisation by the locals. The historical depictions primarily centred around the maritime industry, its connection to iron mining, and Kristinehamn's historical role in shipping. This was mostly shown at exhibitions on-site and, to some extent, told in guided tours. However, in our comparative studies, we found very little trace of this historical legacy on the social media platforms used by the local actors. Similar to our other cases, the history depicted focused on men, neglecting the representation of women and children and giving little attention to the wider maritime environment. Our surveys found a fascinating past with a place formed by women entrepreneurs, business and manor owners, lighthouse families, a mental hospital, and many more stories.

4.4. Glaskogen

In the case of Glaskogen, we found unspoken barriers segregating areas for visitors and locals, with visitors expressing a desire to disconnect and seek authentic, nature-immersed experiences. This desire, from both visitors and tourist officials, to portray Glaskogen as this "untouched" natural site has led to the complete lack of any historical ties shown in social media and marketing. Entrepreneurs and cultural sites were non-existent on digital maps such as Google Maps. This contributed to forming the image of an "empty" local community, void of all local services, residents, and past and present activities. Our studies pointed towards the possibilities of using the different historical eras of this border region to add to the visitor experience and strengthen the local identity. This could include the culture of the Finnish settlers in the 17th century or the effects of industrialisation or the Second World War on these rural communities.

4.5. Sunne

Sunne officially labels itself as "part of the Saga," citing a long tradition of renowned authors residing in the region and priding itself on being creative. However, visitors perceive Sunne more as a museum where places are meant to be observed rather than experienced, leading to a sense of exclusion from "the Saga." The focus leans heavily towards history, particularly emphasising local author and Nobel Prize laureate Selma Lagerlöf (1858–1940), at the expense of the present cultural activities. The desire to be recognised as a cultural place worth visiting, with a long history of established authors and other prominent figures, was obvious in our studies. This was the focal story in digital media as well as on-site. So much so that the more obscure and mysterious literature, often based on local myths and legends, has recently been acknowledged. However, the representation of popular and contemporary culture is still lacking or less visible here.

4.6. Turning Knowledge Into Ideas

As described in the fieldwork sections above, the research team analysed the findings using a critical geomedia perspective (Fast et al., 2019). Summaries of these findings were then delivered as input to the next cycles in the process. For all five cases, this process consisted of a series of creative workshops (see Section 3). The research team was aware of the challenges of applying a critical perspective in a process based on participatory action research. We, therefore, had a transformative approach, where our role as researchers and the importance of using a critical perspective was stated at the start of each process and at each workshop.

The practical aim of each workshop series was to create ideas on digital place-based solutions that could enhance visitor experiences and strengthen local communities. Therefore, our next role as researchers was to guide the participants in a selection process and to funnel the ideas into practical solutions that could be implemented. In the final cycles of the process, we used a tool to categorise the ideas into groups with different degrees of realisation so that the local actors could start with at least one of the ideas.

Co-creating new digital solutions based on critical views of the past helped the participants to jointly discuss and envisage multiple paths for the future rather than just continue with "business as usual." The in-depth studies and analyses contributed to giving the local actors new perspectives on their past and present. It also helped the participants to envisage new, multiple futures, including the sometimes-neglected parts of their past. Through the workshops, the local actors created many ideas of what this future could look like. We argue that this process was a part of local empowerment—to increase local knowledge and insights, leading to creative ideas of different futures, having new tools to sort these ideas, and then turning them into action. The empirical findings from the in-depth studies (Cycle 1) served as a vital input into the process for the local participants, who turned the new knowledge into resources in the process of collectively creating visions of multiple futures for future community development.

4.7. Practical Outcomes

Following the process, participating entrepreneurs and public organisations have paid attention to local assets, multiple uses, and sensible alternative developments. By engaging with various forms of actors, the process has enabled and strengthened the capacity of local actors to steer their own future. The strong will to act upon

new knowledge and realisations resulted in parallel processes with several side effects during the development process. For example, local actors implemented tangible solutions which emerged as a result of the social meetings facilitated by the research team. Through our evaluation of the processes, we have noted practical outcomes, so-called "side effects." Examples are described in the following paragraphs.

As an effect of the exclusion of women's history, Långban Museum introduced new thematic guided tours focusing on the women of Långban's story, adding this perspective to their new digital guiding app. This was also promoted through social media and added to their website.

As part of the tourism business in the Klarälven River Valley, a new reception house was constructed at the visitor centre of the timber rafting business. This house featured a multimedia presentation to introduce visitors to timber logging's history. This also enabled the seasonal staff to be educated on the local history and its connection to the business.

Today, we can see that geomedia technologies are used in some places as a concrete result of our studies. For example, in the case of Kristinehamn, the municipality has taken ownership of the process and benefited from the experience and lessons learned. They now run digital "quests" for residents and visitors to connect the city centre with the archipelago and integrate their local maritime history.

The creative concepts for future prototypes as end results of the processes resulted in digital solutions, all with very clear connections to the initial findings from the in-depth studies presented in this section. The digital solutions aimed to complement and enhance the place-based experience grounded in geomedia perspectives. The prototypes were low-tech solutions to ensure that entrepreneurs would be interested in developing them further. The purpose was to deliver digital solutions that were based on challenges, needs, content, and experienced, and not what was technological possible. These practical outcomes are good examples of how the participants implemented their new knowledge and created a new product using geomedia technology. Thus, also challenging the hegemonic geomedia technologies often used by the tourism sector (Munar et al., 2013), which is in line with other scholars in the field (Goode & Godhe, 2018; Inayatullah, 2007; Jakobsone, 2017).

5. Conclusions

This article reveals how, by applying critical geomedia studies (Fast et al., 2019), we have studied the intricate connection between people, place, and technology across different time frames—past, present, and future. Geomedia studies, in this context, has offered a critical lens into our methodological approach that inspired visions of the future beyond preformatted technological infrastructures and media practices, giving place an "extended agency" (Adams, 2017).

This process involved collecting a large amount of data. Likewise, a large number of results were produced, both during the process and in the final phase. This means that the in-depth studies were not intended to stand alone but to gain knowledge and examples useful within the participatory action study (Ingold, 2018; Ryan Bengtsson et al., 2022). The in-depth studies have the role of identifying various representations (see Section 3). In this way, we ensured that the voices and stories of the actors followed the process as a common thread. They also serve as an example of how research plays a role in this type of process.

The geomedia perspective, integrated into the methodology in analytical questions, gave rise to identified gaps in the representations, different themes, and new perspectives at each place (Forsythe, 1999). This, in combination with identifying challenges through in-depth studies, helped local actors to re-discover their communities and offer opportunities to reinvent themselves and, in the next step, envisage multiple futures. This illustrates how critical perspectives added by researchers can support local actors in their collectively created visions for local community development (Jakobsone, 2017) and how geomedia theory can induce multiple imaginations of the future. In this way, the in-depth studies resulted in several different paths for multiple futures (Goode & Godhe, 2018). They demonstrated a more democratic way of working beyond the single rational future path (Goode & Godhe, 2018). The method shows how local resources and human assets can give rise to new solutions. These solutions are not necessarily focussed on economic growth but rather on social interaction, preserving cultural or socio-cultural values, and ensuring the retention of skills. In doing so, we can reach beyond sedimented or "common sense" discourses of the future and broaden the field of possibilities. This is important for a sustainable future, as Fitzgerald and Davies (2022) argue.

The process itself contributed to individuals feeling more empowered. As one of the participants summarised: "Being creative together makes innovation" (local entrepreneur, March 8, 2019). The assessment indicates that the process allowed actors to expand their digital knowledge, explore geomedia technologies, and consequently enhance their control over local development. Participants expressed reduced reliance on existing platforms and tools for mediated experiences. They also acquired novel approaches for business development, supporting digital progress, and a heightened awareness of conflicts between local interests and those of the tourism sector (Ren et al., 2017). Other local contributors expressed satisfaction that they were able to share their specific local knowledge, appreciating the opportunity to shed light on and expand their perspectives by highlighting the different representations. As highlighted by several participants, this represented a unique chance to be part of a local development initiative.

Through a participatory approach with a place-based and collaborative method, our aim has not only been to empower individuals and locals in rural tourism settings but also to create an awareness of the uniqueness of local places, their assets, and representations in order to give the place agency (Adams, 2017). As a consequence of the digital age, a common understanding of how media influence the representation of place is necessary. The researchers' engagement in working together with communities promotes multiple perspectives when imagining futures and their own roles within a specific place. In the discussions, participants jointly explored and expressed reflections on complex issues such as access, restrictions, equality, authority, and legitimacy (Ryan Bengtsson et al., 2022).

The collective process allowed us to intimately familiarise ourselves with the places in terms of needs, challenges, and resources, bringing forth a multitude of local assets and narratives and allowing the participants to envision multiple alternative geomedia technologies. The development of a so-called "geomedia sensibility" is achieved by guaranteeing that ideas and concepts produced are firmly grounded in the specific conditions of each place, along with the actors' associations with them (Braunerhielm & Ryan Bengtsson, 2023). This opens up an understanding of the role of media and how they can be part of an increased representation and diversity (Dwyer, 2017; Jansson, 2020). An awareness of the relationship between place, people, and technology/media reveals how actors can take command of their own development and see their own role in harmony with places and people.

This article serves as an example of how research can contribute to the intersection of knowledge, critical thinking, and advancement and how it enables participants to cultivate fresh viewpoints. An important contribution of this article is thus the methodological approach. By applying critical design and a geomedia perspective to the design process, we, as researchers, adopt a critical approach and create opportunities for participants to envision multiple futures. By bringing researchers into the process, we allow more options about what the future could be. We believe the image that actors have of the future also influences how the future is developed. Therefore, by adding critical design to the process, we have increased the number of alternative futures. This expands the potential narratives related to each destination, fostering experimentation among local entrepreneurs and municipalities. Consequently, we argue that researchers should actively engage with society to bypass hegemonic geomedia representations. By providing tools and methodologies to address obstacles, challenges, opportunities, and benefits, we provide a framework enabling people to collectively (re-)imagine geomedia futures. With this article, we call for further studies on how to bypass hegemonic geomedia representations in media technology in both tourism development and in a wider context of place development, as well as how this critical perspective could be applied in other international contexts.

Through the co-creation of both research and practice, we have contributed to creating concrete solutions, especially creating multiple futures together with local actors. Together with local actors, we learned how to refine the work in a place-based and collaborative manner, focusing on people and places instead of technology-led development. The undertaking provoked future visions beyond preformatted technological infrastructures and media practices in rural settings, thereby enhancing the empowerment of local actors by engaging their thoughts and imaginings of possible futures.

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Conflict of Interests

The authors declare no conflict of interest.

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