

Christmann, Gabriela; Singh, Ajit; Stollmann, Jörg; Bernhardt, Christoph

Article — Published Version

Visual Communication in Urban Design and Planning: The Impact of Mediatisation(s) on the Construction of Urban Futures

Urban Planning

Provided in Cooperation with:

Leibniz Institute for Research on Society and Space (IRS)

Suggested Citation: Christmann, Gabriela; Singh, Ajit; Stollmann, Jörg; Bernhardt, Christoph (2020) : Visual Communication in Urban Design and Planning: The Impact of Mediatisation(s) on the Construction of Urban Futures, Urban Planning, ISSN 2183-7635, Cogitatio, Lisbon, Vol. 5, Iss. 2, pp. 1-9,
<https://doi.org/10.17645/up.v5i2.3279>

This Version is available at:

<https://hdl.handle.net/10419/259815>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<http://creativecommons.org/licenses/by/4.0>

Editorial

Visual Communication in Urban Design and Planning: The Impact of Mediatisation(s) on the Construction of Urban Futures

Gabriela Christmann^{1,2,*}, Ajit Singh¹, Jörg Stollmann³ and Christoph Bernhardt^{4,5}

¹ Dynamics of Communication, Knowledge and Spatial Development Department, IRS–Leibniz Institute for Research on Society and Space, 15537 Erkner, Germany; E-Mails: gabriela.christmann@leibniz-irs.de (G.C.), ajit.singh@leibniz-irs.de (A.S.)

² Department of Sociology, TU Berlin, 10623 Berlin, Germany

³ Institute of Architecture, TU Berlin, 10623 Berlin, Germany; E-Mail: stollmann@tu-berlin.de

⁴ Department of Historical Research, IRS–Leibniz Institute for Research on Society and Space, 15537 Erkner, Germany; E-Mail: christoph.bernhardt@leibniz-irs.de

⁵ Department of History, HU Berlin, 10117 Berlin, Germany

* Corresponding author

Submitted: 24 May 2020 | Published: 26 June 2020

Abstract

This editorial introduces the subject matter of the thematic issue, which includes a diverse collection of contributions from authors in various disciplines including, history, architecture, planning, sociology and geography. Within the context of mediatisation processes—and the increased use of ever-expanding I&C technologies—communication has undergone profound changes. As such, this thematic issue will discuss how far (digital) media tools and their social uses in urban design and planning have impacted the visualisation of urban imaginations and how urban futures are thereby communicatively produced. Referring to an approach originating from the media and communication sciences, the authors begin with an outline of the core concepts of mediatisation and digitalisation. They suggest how the term ‘visualisation’ can be conceived and, against this background, based upon the sociological approach of communicative constructivism, a proposal is offered, which diverges from traditional methods of conceptualising visualisations: Instead, it highlights the need for a greater consideration towards the active role of creators (e.g., planners) and recipients (e.g., stakeholders) as well as the distinctive techniques of communication involved (e.g., a specific digital planning tools). The authors in this issue illustrate how communicative construction, particularly the visual construction of urban futures, can be understood, depending upon the kind of social actors as well as the means of communication involved. The editorial concludes with a summary of the main arguments and core results presented.

Keywords

digital tools; mediatisation; urban planning and design; visual communication; visualisations

Issue

This editorial is part of the issue “Visual Communication in Urban Design and Planning: The Impact of Mediatisation(s) on the Construction of Urban Futures” edited by Gabriela Christmann (Leibniz Institute for Research on Society and Space, Germany), Christoph Bernhardt (Leibniz Institute for Research on Society and Space, Germany) and Jörg Stollmann (TU Berlin, Germany).

© 2020 by the authors; licensee Cogitatio (Lisbon, Portugal). This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

1. Introduction

Since the second half of the 19th century, urban design and planning for emerging modern industrial societies

has been assigned the task of shaping and structuring future spaces in built, infrastructural, as well as economic and social environments. The ways in which this task has been approached has always been subject to change

(Christmann, Ibert, Jessen, & Walther, 2017, p. 247). In our thematic issue, we focus on changes resulting from the mediatisation of planning processes. Mediatisation is the increased development and usage of new technologies and media that shape our day-to-day life and work, with digitalisation acting as a single aspect of the process. In the history of planning and urban design, planners and architects have always employed a variety of the latest innovative media tools to create, communicate and visualise their imaginings of urban futures (Carpentier & Dahlgren, 2014). Examples of which, include the development of new ways of model-building and photographic presentation since 1910, the creation of new forms of exhibition after 1945 and the integration of the latest digital I&C technologies (and also of complex visualisations) in the present (Frey, Lampugnani, & Perotti, 2005). A crucial question that the Thematic Issue will explore is, how can the visual communication and creation of urban imaginations be described in a context where manifold analogue as well as digital media tools for planning are available and used? Based on the assumption that new technologies may shape communication processes in a profound manner (Couldry et al., 2014; Hepp, Hjarvard, & Lundby, 2015), we interrogate the extent to which (digital) media tools and their social uses have impacted the conceptualisation of urban imaginations and how urban futures are communicatively constructed.

The authors included in this issue specialise in a variety of disciplines including history, architecture, planning, sociology as well as geography and cover a broad range of case studies from all over the globe, in places such as Germany, The Netherlands, the United Kingdom, Egypt, and South Africa. They will examine planners' practices, asking how their (digital) visual tools have changed, how the tools influence the way in which planning professionals work and thereby create urban futures.

A remarkable material change in planning practices and communication has occurred since the 1970s. Since then, aspects of marketing, identity management and citizen involvement have been increasingly integrated into the planning process, which has substantially expanded the tasks associated with planning, both in terms of procedures and content (Batty, 1991; Pinto, 2014). Furthermore, since the 1990s the social and planning sciences have taken the 'communicative turn' (Healey, 1992, 1997), a characteristic feature of which sees planners with redefined roles as process initiators, mediators, or simply, as participants. The development of the first digital technologies during this period resulted in modified ways of engaging publics by using digitally produced visualisations such as plans, maps, computer-aided design drawings, 2D or 3D simulations of urban environments (e.g., Corner, 1999; Lange, 2011). In line with the development of the Web 2.0 in the 2000s, a variety of digital tools were created to facilitate interactive communication (Tambouris et al., 2013).

Meanwhile considerable research has been undertaken in the field of communicative planning (Fischer

& Gottweis, 2012; Healey, 1997; Innes, 1995; Innes & Booher, 1999; Milz, 2019), particularly on e-participation (Al-Kodmany, Betancur, & Vidyarthi, 2012; Carpentier & Dahlgren, 2014; Donders, Hartmann, & Kokx, 2014; Falco & Kleinhans, 2018; Wilson, Tewdwr-Jones, & Comber, 2019) as well as on smart cities (Carvalho, 2015; Datta, 2015; Hollands, 2008; Karvonen, Cook, & Haarstad, 2020; Kitchin, 2014; Townsend, 2013).

What is conspicuous, however, is that digital and visual forms of communication in urban design and planning—as well as the negotiation of urban imaginations that can be found therein—are still under-researched. With regard to visualisations, if they are considered at all, it is assumed without question that they create publicity, evidence as well as transparency and serve as instruments to promote participation (Hasler, Chenal, & Soutter, 2017; Tambouris et al., 2013). However, these assumptions are largely unexamined. Little is known about the past and present uses or about the effects of analogue and digitalised visualisations within urban design and planning. Therefore, the thematic issue will address these gaps.

In the following sections of this editorial we will outline the wider conceptual background of mediatisations, digitalisations, visualisations and the creation of urban futures for the field of urban design and planning. We aim to accurately determine the facets of the topic area and the context of the individual contributions. This will be accomplished by introducing the concepts of mediatisation and digitalisation in Section 2. In Section 3 we will then suggest how the term 'visualisation' can be conceived of in general and, more specifically, in the context of urban design and planning. We will discuss the different aspects that should be taken into consideration when looking at visualisations in urban design and planning more systematically. Also, the role of visualisations and the contribution that they may make to the communicative construction of urban futures will be reflected. Against this background, in Section 4 we will sketch the main arguments and results of each article in the Thematic Issue. Section 5 of our introductory contribution will conclude.

2. Mediatisation and Digitalisation in Urban Design and Planning

The premise of the thematic issue grapples with a popular notion in communication science, which has observed the rapid development of extensive mediatisation—and more recently, digitalisation—of communication processes over the years. Across societal systems, people have been increasingly exposed to media and technologies, both analogue and digital (Hepp, 2020; Hepp et al., 2015; Krotz, 2001, 2007). As a consequence, the increased usage and experience of these novel tools has catalysed changes in human behaviour, particularly the way individuals, communities, professions, institutions and organisations communicate and work. It is believed

that such changes may have also influenced the organisation of our social world, our living environment and even spatial arrangements. As such, some scholars have argued that mediatisation and digitalisation processes have led to a “re-figuration of spaces” (Knoblauch & Löw, 2017, p. 3). The fact that social actors (e.g., architects and planners) can be (virtually) present in several places simultaneously and that, depending on the media they apply, they are able to act in various forms of translocality, illustrates this argument. Indeed, there is increased evidence that mediatised (and digitised) communication may result in different experiences, forms of knowledge, ways of acting, social processes and possibly different constructions of reality.

A particularly fascinating topic in current research on mediatisations is the emergence of digital media and technologies. Arguably, digitalisation has been the most disruptive moment within the process of mediatisation; as such, the historic process of mediatisations should not be considered as one that is simple linear, but rather as one that has developed in ‘waves,’ which are responsible for triggering fundamental changes—be it for media environments or societies at large. Today’s typical media environments are extremely manifold (Hepp, 2020, p. 5). Existing analogue media continues to undergo further development due to the diverse, ever-changing digital media and technologies, with which it bears a close connection. Given that media are growing increasingly computerised, a ‘deep mediatisation’ can be observed according to Hepp (2020, p. 5). The concept ‘deep mediatisation’ refers to an advanced stage of the mediatisation process “in which all elements of our social world are intricately related to digital media and their underlying infrastructures” (Hepp, 2020, p. 5). Even objects that are not traditionally considered as media, such as a car, are made media by virtue of their digital connectivity. Another crucial characteristic of digital technologies is that they are software-based, i.e., automated by means of algorithms, and that they automatically generate data while they are used for information and communication purposes. Therefore, algorithms and automated data processing have agency and become actants in the mediated construction of the social world (Latour, 2005).

The adoption of planning information systems, which provide a diversity of space-related data, maps and models in digital form, indicates that deep mediatisation has taken place in urban design and planning. In this domain, the data are prepared in a way that the tasks of monitoring (i.e., the description of past and present processes) as well as of forecasting future developments are supported (Shen, 2012; Wegener, 2001). Planning information systems include geographic information systems which provide data on a variety of physical elements (e.g., buildings, streets, airstreams, etc.) as well as on social processes on the space (e.g., population development, traffic development) for the purpose of analysing and processing data as well as using it as a model to simulate and/or present certain scenarios (Fang, Shandas,

& Arriaga Cordero, 2014). Based on the data obtained, computer-aided mapping supports the creation and improvement of maps, which can then be transferred to CAD programmes for urban design.

As indicated above, digital tools have also found their way into design planning, where built environments are designed in aesthetic terms. Former analogue methods have been transferred to computer systems. After undergoing further modifications, they have revolutionised urban design in the form of applications, such as CAD or CAAD (computer-aided architectural design). These computer programmes also contain presentation techniques that create impressive virtual 2D or 3D simulations or city models where the aesthetic qualities of architectural design come alive (Al-Kodmany, 2002; Czerkauer-Yamu & Voigt, 2016; Lovett, Appleton, Warren-Kretzschmar, & von Haaren, 2015; Yin & Shiode, 2014).

Such presentations have generated new means of communicating with stakeholders. Together with the opportunities offered by the Internet, it has become possible to provide extensive information that clearly illustrates changes in urban environments, while at the same time, promoting further inclusion of inhabitants in the planning process.

Previous research on these developments, however, tends toward the pragmatic as opposed to the analytical and theoretical. As a rule, this work primarily reports on options for optimisation of these digital tools in a more practical manner.

3. Visualisations and the Communicative Construction of Spaces

When discussing visualisations, such as drawings, photographs, 2D and 3D simulations or city models, etc., it is necessary to clarify that, unlike language or texts, they depict visual characteristics of an object, whether it comes from the past, present or future. Therefore, the visual depiction should not be confused with an (objective) representation of the object, which is a surprising trend amongst authors working with visualisations (e.g., Rose, 2018, in her contribution on representation and mediation). Although we may conceive of a relation of similarity between an object and its visualisation (e.g., in a photograph showing a building of the present), a visualisation does not objectively capture ‘the’ reality of the object. Rather, the visualisation shows ‘a visual’ reality (e.g., of a built environment). For example, even in a photographic (or photo-realistic) depiction of a built environment, spatial dimensions are typically reduced to a surface; furthermore, angles, selections of the whole setting and photo-technical modifications have their own distinct effects.

Phenomenologically speaking, a visualisation must then be conceived of as a depiction of an object by which the visibility of the object not being present is actively produced—both by the creator(s) of the visualisation (e.g., by a photographer or a designer) and

through a particular visual means (e.g., a camera and/or computer-assisted design software). At the same time, viewers must also be seen as producers of visualisations. The phenomenological concept of visualisation includes the notion that the object that is not physically present is “appresented” in the mind of the onlooker (Schutz & Luckmann, 1989, pp. 131–135; see also Christmann, 2008, para. 6). In other words, the object that is not present is regarded as being ap-presented by visualisations rather than as re-presented. The term ‘appresentation’ implies that social actors have a particular knowledge about individual objects (as well as the means of creating the visualisations), which is included in the process of seeing and interpreting a visualisation. By deciphering or decoding visualisations and activating their knowledge, viewers become an integral part of the visual process. Thus, the phenomenological approach takes into consideration the active role that creators and viewers have regarding the use of and exposure to visualisations, unlike the former traditional manner of conceiving visualisations, which keep this role somewhat hidden.

Based largely on socio-phenomenological thoughts, the sociological approach of communicative constructivism (Knoblauch, 2019) suggests that (depending upon the kind of social actors as well as the means of communication involved) communications contribute to the social ‘construction’ of (respective) ‘realities.’ There, the meaning of the term, ‘communication,’ extends far beyond the use of language and texts through the usage of verbal and non-verbal signs, bodies, physical things, technologies, visualisations, etc. An important point to take away however, is that the more distinct concept concerning the “communicative construction of spaces” (Christmann, 2020) applies the general approach of communicative constructivism to spatial theory and conceives communicative action, including visual communication, as a fundamental element in the construction of past, present or future spaces. It can explain how actors’ ideas and visualisations related to space are promoted, contested and negotiated within complex actor constellations, how it becomes possible for such interpretations to be and how they can shape the visions of urban futures, as well as the will to materialise them. For the investigation of urban futures, the concept suggests a detailed empirical analysis of communicative negotiation processes, including communicative practices of visualisations.

Communicative practices of visualising urban futures can only be analysed adequately when a critical perspective is applied towards the analysis of implicit visual cultures of the planning and design professions as well as stakeholders. We must be aware of the fact that the immanent meaning of a visualisation also touches on questions of power. We must also take into consideration that the development of particular forms of pictorial ‘language’ and/or specific practices of seeing (Lynch, 1960) may be unique to different disciplines as well as the professional cultures of visual specialists. Furthermore, the

production of distinct modes of visualisations and how they are perceived is relevant, e.g., in magazines, in exhibitions, at a workshop discussion or on social media platforms. Additionally, urban planning in general (e.g., Healey, 2013) and visual practices within it in particular must be discussed as situated practices based upon their own unique political, geographical and cultural contexts (e.g., Global South/Global North). Since research on planning and urban design has predominantly focused on the visualisations created by architects and planners, it should still be recognised that new participatory tools also enable citizens to formulate their own ideas, knowledge and meanings and make them visible. We should be aware of the fact that also urban movements, civil society organisations and other political actors use visualisations of urban futures in order to push their own interests and goals and to influence public spheres. Thus, visual communication not only permeates the professional world of planners and their specialised working practices, but also the everyday lives of citizens. Finally, if we follow Hepp’s (2020) thesis of deep mediatisation, we must understand the extent to which algorithms co-create visualisations and the communicative construction of urban futures. Maybe Latour’s (2005, p. 63) statement, “objects too have agency,” can be modified to algorithms too have agency.

In the thematic issue, the aforementioned points of reflection will not be fully or systematically addressed in each individual contribution; however, some articles will discuss these themes in greater depth.

4. The Articles in the Thematic Issue

In their contribution, Bernhardt and Meissner (2020) primarily examine the role that innovative strategies of communication and visualisation played in the context of the new culture of urban planning emerging over the course of the 1970s and 1980s. In order to better understand the historical background of this process from a long-term perspective and to fully grapple with variations in socialist and capitalist societies, they take the case of divided Berlin during the Cold War period. Despite suffering from large scale damages of WWII as well as long lasting economic stagnation, the city became the showcase of ideologically driven iconic projects of urban planning in the 1950s and 1960s, with the development of large housing settlements and urban motorways. These projects were presented in extensive public campaigns and were promoted using visual instruments and media, such as international building exhibitions, regional plans from a bird’s eye perspective and the like. The article also states that as a result of the 1970’s turn in urban planning, which focused on renewal and historic preservation, new forms of public communication and visualisation emerged. While analysing two small-scale planning projects for neighbourhoods in East and West Berlin, the authors reveal the critical role of (visual) media in the rise of new communicative practices in comprehensive plan-

ning during the 1980s. Among their other findings, they explore contradictory patterns and effects of public participation and visualisation in both political systems and planning schemes in their selected cases.

Mager and Hein (2020) explore the value and the challenges that digital technologies provide in their analysis of historical mediatisations of the built environment. Within this broader field of research, they focus on the problems and potentials for using artificial intelligence to help identify buildings in historical photographs. Starting with a long-term retrospection on the interrelation between visual media and architecture, Mager and Hein highlight the role of graphic representations of architectural concepts for the production of buildings and photography and other technological innovations for the documentation of existing buildings. Special attention is given to distinct problems, such as different angles or focal lengths in historic photos which make it difficult to apply or adjust technologies of artificial intelligence to the automatic identification of buildings. While analysing a pioneering project concerning Amsterdam's built heritage, key strategies, tools, and practices are depicted, which are needed to realise such large programmes of identification. Here, specific forms of cooperation between IT-experts, historians, and students are connected to practices of citizen's science. In widening the perspective, Mager and Hein demonstrate the methodological challenges that these quantitative approaches provide for architectural history and related disciplines in the humanities, which typically prioritise qualitative research. However, as they argue, with the help of mixed methodological concepts, new exciting insights into the history of the built environment can be generated.

In her contribution, Watson (2020) discusses the growing impact of computer-generated images in entrepreneurial planning on the African continent. These visualisations carry a strong agency within Africa's current neoliberal urban development. Instead of tackling the urban challenges faced by African mega-cities, international property development companies—in cooperation with governments or other local partners—have prioritised the construction of up-market new towns or satellite towns at the urban fringes. Watson understands planning as being shaped by visualisations and graphics through a network of computer programmes and marketing experts. In this network, photo-realistic visualisations have ousted plans, maps and elevations in communicating and marketing urban projects. New forms of collaboration between planners, branding experts and visualisation experts have incorporated urban planning professionals into the generation of these proposals, which has turned them into visualisers and has also disconnected them from the larger socio-political context as well as the people for whom they should be planning for. In her analysis, Watson explores a series of commercial real-estate projects on the continent, including Diamniadio Lake City outside Dakar as well as Eco Atlantic in Lagos. As these projects bypass democratic decision-making and plan-

ning processes while failing to address the interest of the public good, they prohibit the equitable and sustainable future of urban development. The computer-generated visualisations of urban futures serve as both indicators and active agents in this process.

The contribution by Hendawy and Stollmann (2020) begins with the observation that both planning and urban development in Egypt fail to adequately address the needs of the impoverished urban population. Instead, government planners and the private real estate sector cater to developing middle- to high-end urban enclaves and new towns; this interest also dominates public discourse regarding urban development, which is reflected in the form of news reports, online and street-sign advertising. The authors interrogate the role that such visualisations of exclusive urban futures play with regard to the shared acceptance of these urban models within society, despite the fact that many are unable to benefit from such developments. The authors use a mixed methods approach that begins with qualitative interviews conducted with cab and uber drivers in Cairo as well as an online survey with a socially diverse sample of the urban population. The findings are then framed through the first author's self-reflection when they were expected to buy an apartment while getting married. Finally, a visual analysis of exemplary advertising videos reveals the close entanglement of real estate and cultural norms. The research findings are surprising in so far as they shed light on the importance of socio-cultural norms pertaining to Egypt's family values and marriage culture, which emphasise the importance of real estate acquisition as a precondition for marriage. These cultural factors lead to an understanding of social and spatial injustice as not only being produced from top-down planning authorities within a neo-liberal political economy, but also as a form of co-production in which the majority of the population partakes.

In Weise, Wilson, and Vigar (2020) the authors understand visualisation as visual presentations of a perceived reality. Using the case study of town planning in Great Britain, they examine the process of communicative planning, which has been carried out using two separate digital tools for citizen participation. The article discusses the use of digital visualisations, which were made and/or commented on by residents, i.e., laypeople, and where planners served as enablers. The first tool, JigsAudio, allows residents to communicate through drawings as well as through speaking in order to exchange experiences concerning the general challenges of place-making in a town and allows participating residents to express their aspirations for the future of urban spaces. By contrast, the other tool, PlaceChangers, provides a collection of places in the neighbourhood that are already mapped, which can be digitally annotated in order to suggest changes should be made. Against this background, the authors considered how visualisations contribute to the discussion of alternative perspectives of places as well as what forms of spatial knowledge are activated by

the different tools. One result found that the visualisations on their own did not produce meanings or suggestions for changes; rather, they needed to be accompanied by verbal accounts or conversations to clarify their meaning. Another insight found that JigsAudio evoked accounts about abstract values and feelings with regard to (future) urban places, while responses obtained using PlaceChangers contained the description of specific issues about the design of places in the neighbourhood in terms of what is where and how it should be.

Singh and Christmann (2020) investigate the participation processes on an e-participation platform in Germany's capital. The authors consider how participating Berlin residents use visualisations within an e-participation format, how they communicate spatial knowledge and how they construct public urban spaces through the use of visualisations. Similar to the contribution of Weise et al. (2020), the article investigates how visualisations are produced by residents. From the beginning, the authors focus on the interplay between visual and verbal accounts of the participating residents and suggest a methodological approach for the ensuing analysis. In contrast to Weise et al. (2020), the investigated platform of meinBerlin did not provide any specific digital tools or guidance from planners for drawing or annotating. In their article, Singh and Christmann examine a participation project that focuses on noisy urban spaces and noise protection ("Report Noise Sites!"). Against this background, the authors detail the strategies that the participating residents use to not only visually communicate their perceptions and conceptualisations of urban places, but to report on and to characterise noise (respectively noisy places). The study also revealed some residents even attempted at to visually depict possible future solutions for (selected) noise spaces demonstrating the potential of the e-platform to active creative processes for imagining urban futures.

The application of new digital information and communication technologies in participatory urban planning often evokes expectations of a reconnection between citizens and decision-makers as well as an increase of trust in planning. In his article, Åström (2020) scrutinizes these assumptions while shedding light on planners' attitudes towards citizens. Although a huge body of research on citizens' trust in government exists, public officials trust in citizens has received little scholarly attention. The article is guided by the question whether planners find citizens trustworthy as well as what individual and institutional factors influence their trust in citizens. Åström methodologically draws on a survey targeted to a representative sample of public managers in Swedish local government (N = 1430). One of the main findings in the study show that in Sweden factors, such as planners' trust in their own power and capabilities as well as in political and institutional measures are all positively related to trust in citizens. Nevertheless, trust must be established through institutional measures to close the distance between politics and public administration and most impor-

tantly to the citizens. New forms of participation could provide great opportunities for experimenting with such trust-building arrangements. Finally, the author reflects on trust of citizens in the context of e-participation and smart city planning. He points out that smart services—which are offered to citizens in fields such as housing, healthcare or participation—may lead to improvements in the public's everyday life. However, due to processes of collecting, storing, processing and analysing the associated data, vulnerabilities may arise, which will demand a great deal of trust by citizens.

5. Conclusion

This editorial introduces topics related to the thematic issue. Its first objective was to outline the wider conceptual background surrounding the terms 'mediatisation,' 'digitalisation,' 'visualisation' and the communicative construction of urban futures as they relate to urban design and planning. The term 'mediatisation' is conceived of as an increased use of (analogue and digital) media and technologies over time that changes the way in which individuals, professions and organisations communicate and work; it may even change the way in which they organise their social worlds and spatial arrangements. The term 'digitalisation' is conceptualised as the most disruptive moment within the process of mediatisation. A characteristic feature of the digital age is that media and technologies have grown increasingly computerised and highly connected with one another. The authors of these articles do not understand the term 'visualisation' as a mere representation of an object. Instead, they propose defining it as a depiction of an object wherein what is absent from the object is made visible by the creator(s) of the visualisation (e.g., by a photographer or an urban designer), through particular visual means (e.g., a camera and/or computer-assisted design software) and by observers. They argue that by deciphering or decoding visualisations, viewers become an integral part of the visual process. Subsequently, the communicative construction of spaces approach is introduced. This approach conceives of communicative action (including visual communications) as taking place within actor constellations, where it functions as the basic element in the construction of past, present or future spaces. In this thematic issue, the authors also point out that visualisations should always be seen within the context in which they are socio-culturally and spatially (local and/or global) embedded. Visualisations can only be adequately analysed when a critical perspective is taken towards the underlying visual cultures of the planning and design professions as well as of various stakeholders. Additionally, visualisations touch on fundamental questions of power.

The second objective of this editorial was to map the main arguments and results of each contribution of the Thematic Issue. They show both critical aspects and opportunities for (digital) visualisations in urban design and planning. For instance, using the example of historical re-

search on two small-scale planning projects for two separate neighbourhoods in East and West Berlin during the 1980s, it is revealed that (visual) media played a key role in the rise of new communicative practices in planning. Interestingly, this conclusion holds true for both examples in the Federal Republic of Germany as well as in that of the German Democratic Republic. Another historical research project reports on how a new digital tool is used in Amsterdam, which facilitates the process of recognising buildings in historical photographs and also the modelling of historical transformations in the built environment. Such a tool may not only expand perspectives in planning history, but it might also assist in designing the city's future through the identification of path dependencies and critical junctures in further innovative developments. Here, the authors concentrate on the positive impacts of digital visual tools rather than negative. By contrast, while using the case study concerning entrepreneurial planning on the African continent, a more critical perspective is adopted in the exploration of the following questions: To what extent have planners evolved into visualisers, how do they visually address investors and create photo-realistic renderings of urban futures, and how do they become disconnected from a major segment of the population? Surprisingly, another study, which bases its empirical findings in Cairo, suggests that visualisations of exclusive urban futures from top-down planning enterprises within the neo-liberal Egyptian political economy are not rejected outright by most Cairo residents. Rather the interviewees accepted the importance of real estate acquisitions and even appreciated the visualisations of potential urban futures in Cairo. Given the results of their findings, the authors conclude that residents 'co-produce' urban visions of top-down planning. When it comes to digital visual tools in the field of citizen participation, an investigation in Great Britain reveals the ways in which residents depict their visions of urban futures using visual tools provided by planners. There, the authors focus on the kinds of visualisations that are facilitated or impeded by each digital tool under examination.

Another study from Germany showed that within e-participation processes, some residents have an urge to visualise their perceptions and ideas or visions of urban spaces (e.g., via uploading photos, photo collages, or drawings, etc.), even when an e-participation platform doesn't provide tools dedicated to visualisations. Thus, it may be deduced that the use of digital visual tools in communicative planning may result in positive features for residents. The final article delves into the matter of planners' trust in citizens while depicting a case in Sweden, which finds that trust must be established through institutional measures in order to minimise the gap between planners and citizens. This study offers new insights concerning the ways in which the adoption of new (digital) forms of participation could be used as a vehicle for expanding opportunities for experimenting with trust-building arrangements.

Looking at the various contributions to the Thematic Issue, it is apparent that mediatisation and digitalisation processes in urban design and planning have significantly changed the ways in which urban futures are visually depicted and, in turn how they are communicatively constructed. What we can also see, is, that depending on the context, there are quite different—and sometimes even contradictory—findings with regard to the positive or critical aspects concerning the use of (digital) visual tools. This suggests that further research is still needed.

Acknowledgments

The research in this thematic issue was carried out in the context of the project "Mediatisation Processes in Urban Design and Planning—Changes to the Public Sphere" (MedPlan) funded by the Leibniz Competition programme of the Leibniz Association under the project number J68/2016 and of the Collaborative Research Centre 1265 "Re-Figuration of Spaces" funded by the German Research Foundation.

Conflict of Interests

The authors declare no conflict of interest.

References

- Al-Kodmany, K. (2002). Visualization tools and methods in community planning. *Journal of Planning Literature*, 17(2), 189–211. <https://doi.org/10.1177/088541202762475946>
- Al-Kodmany, K., Betancur, J., & Vidyarthi, S. (2012). e-Civic engagement and the youth. *International Journal of e-Planning Research*, 1(3), 87–104. <https://doi.org/10.4018/ijep.2012070105>
- Åström, J. (2020). Participatory urban planning: What would make planners trust the citizens? *Urban Planning*, 5(2), 84–93.
- Batty, M. I. (1991). New technology and planning: Reflections on rapid change and the culture of planning in the post-industrial age. *Town Planning Review*, 62(3), 269–294.
- Bernhardt, C., & Meissner, K. (2020). Communicating and visualising urban planning in Cold War Berlin. *Urban Planning*, 5(2), 10–23.
- Carpentier, N., & Dahlgren, P. (2014). Histories of media(ted) participation: An introduction. *Communication Management Quarterly*, 30(9), 7–14. <https://doi.org/10.5937/comman1430007C>
- Carvalho, L. (2015). Smart cities from scratch? A socio-technical perspective. *Cambridge Journal of Regions, Economy and Society*, 8(1), 43–60.
- Christmann, G. (2008). The power of photographs of buildings in the dresden urban discourse: Towards a visual discourse analysis. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 9(3). <http://dx.doi.org/10.17169/fqs-9.3.1163>

- Christmann, G. (2020). The communicative (re-)construction of spaces. In G. Christmann, H. Knoblauch, & M. Löw (Eds.), *Communicative constructions and the re-figuration of spaces. Theoretical approaches and empirical studies*. London and New York, NY: Routledge.
- Christmann, G., Ibert, O., Jessen, J., & Walther, U.-J. (2017). How does novelty enter spatial planning? Conceptualizing innovations in planning and research strategies. In W. Rammert, A. Windeler, H. Knoblauch, & M. Hutter (Eds.), *Innovation society today: Perspectives, fields, and cases* (pp. 247–272). Wiesbaden: Springer.
- Corner, J. (1999). The agency of mapping: Speculation, critique, and invention. In D. Cosgrove (Ed.), *Mappings* (pp. 213–252). London: Reaktion Books.
- Couldry, N., Stephansen, H., Fotopoulou, A., MacDonald, R., Clark, W., & Dickens, L. (2014). Digital citizenship? Narrative exchange and the changing terms of civic culture. *Citizenship Studies*, 18(6/7), 615–629. <https://doi.org/10.1080/13621025.2013.865903>
- Czerkauer-Yamu, C., & Voigt, A. (2016). Spatial simulation and the real world: Digital methods and techniques in the context of strategic planning. In E. A. Silva, P. Healey, N. Harris, & P. van den Broeck (Ed.), *Routledge handbook of planning research methods* (pp. 348–363). London: Routledge.
- Datta, A. (2015). A 100 smart cities, a 100 utopias. *Dialogues in Human Geography*, 5(1), 49–53.
- Donders, M., Hartmann, T., & Kokx, A. (2014). e-Participation in urban planning: Getting and keeping citizens involved. *International Journal of E-Planning Research*, 3(2), 54–69. <https://doi.org/10.4018/ijep.2014040104>
- Falco, E., & Kleinhans, R. (2018). Digital participatory platforms for co-production in urban development. *International Journal of e-Planning Research*, 7(3), 52–79. <https://doi.org/10.4018/IJEP.2018070105>
- Fang, Y., Shandas, V., & Arriaga Cordero, E. (2014). *Spatial thinking in planning practice. An introduction to GIS*. Portland, OR: Portland State University Library.
- Fischer, F., & Gottweis, H. (Eds.). (2012). *The argumentative turn revisited. Public policy as communicative practice*. Durham, NC: Duke University Press.
- Frey, K., Lampugnani, V. M., & Perotti, E. (Eds.). (2005). *Anthologie zum Städtebau* [Anthology about urban design]. Berlin: Mann.
- Hasler, S., Chenal, J., & Soutter, M. (2017). Digital tools as a means to foster inclusive, data-informed urban planning. *Civil Engineering and Architecture*, 5(6), 230–239. <https://doi.org/10.13189/cea.2017.050605>
- Healey, P. (1992). Planning through debate: The communicative turn in planning theory. *Town Planning Review*, 63(2), 143–162. <https://doi.org/10.3828/tp.63.2.422x602303814821>
- Healey, P. (1997). *Collaborative planning. Shaping places in fragmented societies*. Vancouver: UBC Press.
- Healey, P. (2013). Circuits of knowledge and techniques: The transnational flow of planning ideas and practices. *International Journal of Urban and Regional Research*, 37(5), 1510–1526.
- Hendawy, M., & Stollmann, J. (2020). The entanglement of class, marriage and real estate: The visual culture of Egypt's urbanisation. *Urban Planning*, 5(2), 44–58.
- Hepp, A. (2020). *Deep mediatization*. London and New York, NY: Routledge.
- Hepp, A., Hjarvard, S., & Lundby, K. (2015). Mediatization: Theorizing the interplay between media, culture and society. *Media, Culture & Society*, 37(2), 314–324. <https://doi.org/10.1177/0163443715573835>
- Hollands, R. G. (2008). Will the real smart city please stand up? Intelligent, progressive or entrepreneurial? *City*, 12(3), 303–320.
- Innes, J. E. (1995). Planning theory's emerging paradigm. Communicative action and interactive practice. *Journal of Planning Education and Research*, 14(3), 183–189. <http://dx.doi.org/10.1177/0739456X9501400307>
- Innes, J. E., & Booher, D. E. (1999). Consensus building as role playing and bricolage. toward a theory of collaborative planning. *Journal of the American Planning Association*, 65(1), 9–26. <http://doi:10.1080/01944369908976031>
- Karvonen, A., Cook, M., & Haarstad, H. (Eds.). (2020). Urban planning and the smart city: Projects, practices and politics. *Urban Planning*, 5(1), 65–68. <http://dx.doi.org/10.17645/up.v5i1.2936>
- Kitchin, R. (2014). The real-time city? Big data and smart urbanism. *GeoJournal*, 79(1), 1–14.
- Knoblauch, H. (2019). *The communicative construction of reality*. London and New York, NY: Routledge.
- Knoblauch, H., & Löw, M. (2017). On the spatial re-figuration of the social world. *Sociologica*, 11(2). <https://doi.org/10.2383/88197>
- Krotz, F. (2001). *Die Mediatisierung des kommunikativen Handelns* [The mediatization of communicative action]. Opladen: Westdeutscher Verlag.
- Krotz, F. (2007). *Mediatisierung. Fallstudien zum Wandel von Kommunikation* [Mediatization. Case studies on changes in communication]. Wiesbaden: Springer.
- Lange, E. (2011). 99 volumes later. We can visualize. *Landscape and Urban Planning*, 100(4), 403–406.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford and New York, NY: Oxford University Press.
- Lovett, A., Appleton, K., Warren-Kretzschmar, B., & von Haaren, C. (2015). Using 3D visualization methods in landscape planning. *Critical Approaches to Landscape Visualization*, 142(October), 85–94. <https://doi.org/10.1016/j.landurbplan.2015.02.021>
- Lynch, K. (1960). *The image of the city*. Cambridge, MA: The MIT Press.
- Mager, T., & Hein, C. (2020). Digital excavation of mediatized urban heritage: Automated recognition of buildings in image sources. *Urban Planning*, 5(2), 24–34.

- Milz, D. (2019). Spatial planning judgments and computer supported collaborative planning. *Planning Theory and Practice*, 20(1), 70–96. <https://doi.org/10.1080/14649357.2019.1575460>
- Pinto, N. N. (2014). *Technologies for urban and spatial planning*. Hershey, PA: IGI Global.
- Rose, G. (2018). Representation and mediation. In J. Ash, R. Kitchin, & A. Leszczynski (Eds.), *Digital geographies* (pp. 164–174). London: Sage.
- Schutz, A., & Luckmann, T. (1989). *The structures of the life-world* (Vol. 2). Evanston, Ill: Northwestern University Press.
- Shen, Z. (Ed.). (2012). *Geospatial techniques in urban planning*. Berlin and Heidelberg: Springer.
- Singh, A., & Christmann, G. (2020). Citizen participation in digitised environments in Berlin: visualising spatial knowledge in urban planning. *Urban Planning*, 5(2), 71–83.
- Tambouris, E., Macintosh, A., Dalakiouridou, E., Smith, S., Panopoulou, E., Tarabanis, K., & Millard, J. (2013). e-Participation in Europe. In J. R. Gil-Garcia (Ed.), *e-Government success around the world: Cases, empirical studies, and practical recommendations* (pp. 341–357). Hershey, PA: IGI Global.
- Townsend, A. M. (2013). *Smart cities: Big data, civic hackers, and the quest for a new utopia*. London and New York, NY: WW Norton & Company.
- Watson, V. (2020). Digital visualisation as a new driver of urban change in Africa. *Urban Planning*, 5(2), 35–43.
- Wegener, M. I. (2001). New spatial planning models. *International Journal of Applied Earth Observation and Geoinformation*, 3(3), 224–237. [https://doi.org/10.1016/S0303-2434\(01\)85030-3](https://doi.org/10.1016/S0303-2434(01)85030-3)
- Weise, S., Wilson, A., & Vigar, G. (2020). Reflections on deploying community-driven digital visualisations for public engagement in urban planning. *Urban Planning*, 5(2), 59–70.
- Wilson, A., Tewdwr-Jones, M., & Comber, R. (2019). Urban planning, public participation and digital technology: App development as a method of generating citizen involvement in local planning processes. *Environment and Planning B: Urban Analytics and City Science*, 46(2), 286–302. <https://doi.org/10.1177/2399808317712515>
- Yin, L., & Shiode, T. (2014). 3D spatial-temporal GIS modeling of urban environments to support design and planning processes. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 7(2), 152–169. <https://doi.org/10.1080/17549175.2013.879452>

About the Authors



Gabriela Christmann is a Sociologist. She is Head of the research department Dynamics of Communication, Knowledge and Spatial Development at the Leibniz Institute for Research on Society and Space in Erkner, Germany. At the same time, she is Adjunct Professor at TU Berlin, School for Planning Building Environment (Department of Sociology). Her main research fields include the sociology of knowledge, innovation research, theories of space, sociology of planning, communicative constructivism, mediation and digitalisation processes.



Ajit Singh (PhD) is a Sociologist and a Research Associate at the Dynamics of Communication, Knowledge and Spatial Development research department at the Leibniz Institute for Research on Society and Space in Erkner, Germany. He spent one year as a research fellow at the Global Urban Research Unit at Newcastle University (UK). His research interests include social theories on interaction, visual communication and embodiment, sociology of knowledge, digital mediation in urban planning and public participation and qualitative methods.



Jörg Stollmann is Professor for Urban Design and Urbanization at the Institute for Architecture, TU Berlin. The chair's work focuses on collaborative and cooperative design processes, mediation of planning, and inclusive and climate responsive urban development. Current research projects include Mediation Processes in Urban Planning, and SFB/CRC 1265 Re-Figuration of Spaces. Most recent publications: Tiergarten. Landscape of Transgression, Das Kotti Prinzip, and Spatial Commons. Urban Open Spaces as a Resource. Jörg Stollmann graduated from UdK Berlin and Princeton University.



Christoph Bernhardt (PhD) is Head of the Department for Historical Research and Deputy Director at the Leibniz-Institute for Research on Society and Space (IRS). At the same time, he is an Adjunct Professor for Modern and Contemporary History at the Department of History at Humboldt Universität Berlin, Faculty of Arts and Humanities. Despite others, he leads as principal investigator the project “The Mediation of Urban Development Planning and Changes to the Public Sphere” (MedPlan) since 2017. His research interests are the building and planning history of the GDR, the history of mobility studies as well as urban restructuring and renewal.