

CURRENT PERSPECTIVES ON COMMUNICATION AND MEDIA RESEARCH



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Journalism in a deeply mediatized city. A locative approach to urban reporting

Leif Kramp

Abstract

This chapter introduces a research and development journalism project in the second largest city of Germany, Hamburg. Funded by the Google Digital News Initiative, the project aims to strengthen the core functions of local journalism in terms of social cohesion and civic participation by developing innovative storytelling formats for urban reporting that can easily be appropriated by local journalists. In a collaborative setting, journalists, software engineers, UX designers and researchers translate ongoing trends of deep mediatization, shaped by differentiation, connectivity, omnipresence, pace of innovation and datafication, into a location-aware approach to produce, distribute to and engage audiences with local news.

Keywords: locative media; location-aware news; metropolitan journalism; urban storytelling; communicative figurations; R&D

‘Simply put, location changes everything.’
(Honan 2009)

1. Introduction

Worldwide, large cities tend to grow larger and rural areas experience a continued exodus; urbanization is one of the dominant global trends (United Nations, 2016). Although Germany is not one of the most urbanized nations in Europe (UNDP, n.d.) – with a number of small and mid-sized cities shrinking in previous years (cf. Nelle et al. 2017) – the country is experiencing steady growth in metropolitan areas, with over 75 per cent of the population living in urban areas and cities (cf. World Bank, n.d.). Urbanization challenges not only municipalities, but also civic actors and economic organisations, including media companies. Besides the imperative to cope with the transformation of urban space and social structure in densely populated areas, urban actors are confronted with challenges to facilitate economical and sociocultural progress (cf. Blokland and Savage, 2016). Cities have always been ‘inherently’ places and products of intense communication (Gumpert and Drucker, 2008: 196). Thus, cities are not only radically transformed by ongoing changing social compositions but also by the transforming media environment (cf. Livingstone, d’Haenens and Hasebrink, 2001: 7). The contemporary urban public is made up of new kinds of actor constellations and communicative practices.

Metropolitan areas in Europe have become fields of radical change, expressed by the digitization of infrastructure, segregation and gentrification, economic innovation, technical experimentation and cultural diversity (cf. Eurostat, 2016). Major challenges in today’s society are contested and negotiated in urban spaces: social conflicts connected with segregation, gentrification and migration, rising rents and housing prices due to the constant influx of new residents, environmental concerns and economic change. The introduction of digital technologies to public administration and supplies, infrastructure and social control (surveillance) are a particular catalyst for the ongoing transformations of life in urban spheres. These changes also have far-reaching consequences for journalism practice and news organisations in their efforts (and business) to create and sustain a critical public sphere (cf. Kramp, 2016). In the following, the chapter discusses the radical changes to urban life in an era of deep mediatization and the shortcomings of local journalism in an attempt to keep pace this transformation. It also introduces an experiment – in its early stages – that tries to develop a new integrative approach for news in the urban information ecosphere in Germany.

2. Urban journalism and social cohesion

Social cohesion has been repeatedly identified as a prime function of local journalism in urban spheres (cf. Costera Meijer, 2010; Leupold, Klinger and Jarren 2016; Boyles, 2017). Local news has helped generations of readers, listeners and viewers to structure everyday life, ensuring the circulation of information and commentary on current developments and thereby providing a sense of belonging to a city community (Kim and Ball-Rokeach, 2006), public connection (Franklin, 2006) and an urban identity (Robel and Marszolek, 2017). In short, local news has enabled a sense of civic engagement in urban communities (Friedland, 2014).

‘Community’ is an ambiguous term. The question of community is a question of reference (Black, 1997: 1). As communities change, the emphasis on space as a main factor of identification and coherence gives way to other indicators. Communities are also built by organisational and social references, by interests – but they mainly come to life when the members of a respective community participate (cf. Hiller, 1941). Starting in the 1990s, journalists and academics – mainly in the United States – were excited by a concept that was meant to drive forward the communal embedding of journalism practice, trying to promote civic engagement, create a public debate and offer help and solutions to problems that burden local communities. Debated under various headings – ‘public journalism’, ‘civic journalism’, ‘community journalism’, ‘communitarian journalism’ – this concept was able to secure its position in journalism practice (Haas and Steiner, 2006; Forster, 2010). However, elements and principles of this idea are basically part of the self-perceptions of many local and regional news organizations, as they pledge to stay relevant for their (local and regional) audiences. Usually, local journalists still strive to be, and are proud of being, personally connected to their communities, defined by audiences that live in specific areas. While these communities started to shift their references, forms and preferences, when it comes to locality, connectedness and identity, this has enforced a more conversational and discursive construction of community – instead of the earlier geographical one (cf. Pauly and Eckert, 2002: 321).

Consequently, we see a growing discrepancy between normative expectations of the role of local journalism in urban society and the media usage behaviour of citizens. As Pöttker points out:

Journalists ought to allow their audience to participate in current issues, to enlighten readers and listeners and be advocates of an open conversation between groups and milieus, so that the society can be more cohesive. When it comes to the professional tasks of journalists [...]

the keywords public sphere, enlightenment and integration are used frequently. (Pöttker 2002: 12, translated by the author)

However, in Germany the print media are experiencing a downturn and only a comparatively low percentage of the population accesses news outlets digitally on websites, via apps or social media (Hölig and Hasebrink, 2017). Thus, for journalists, and also on a local level, it is no longer self-evident that they serve as the ‘informational backbone of what people know about social life in their city’ (Leupold, Klinger and Jarren, 2016). News organizations and individual journalists are still important actors in the urban communities they serve, but they have to strive more than ever to maintain the public connection: the ‘orientation to a space where, in principle, problems about shared resources are or should be resolved, a space linked, at least indirectly, to some common frame of collective action about common resources’ (Couldry, Livingstone and Markham 2010: 7). This is, naturally, a field of contestation as it has become increasingly difficult for journalists and (their) news organizations to uphold their previously privileged status as an intermediary between the municipality and citizens.

The German news media sector is largely dominated by traditional regional newspaper publishing houses and federally structured public service broadcasting. The traditional mass-media business models of newspaper publishers and broadcasting companies have increasingly come under pressure in recent years as both advertising revenues and media use have shifted. Circulations have been in constant decline and a historically world-famous ‘newspaper city’ like Germany’s capital, Berlin (cf. Mendelssohn et al., 2017), has seen massive circulation drops and sluggish business for local online journalism. ‘The internet was not the trigger of the crisis of local journalism, but it is indeed a problem’, writes Benjamin Piel (2017), former editor-in-chief of the local newspaper *Elbe-Jeetzel-Zeitung*. Especially, small news organizations – no matter where they are located – struggle in their search for new revenue models and monetizing their online ventures. Economic backing is a core condition for editorial development in times of change and uncertainty: For a long time, especially newsrooms in local and regional news organizations have shown a strong tendency of inertia, resisting innovative concepts, reorganizing workflows or launching new products, pursuing a hesitant adoption strategy due to high financial risk (cf. Kramp and Weichert, 2012; Weichert, Kramp and Welker, 2015).

However, this has changed in recent years, making way for new forms of distribution through social media (cf. Bruns, 2018). We increasingly see journalism trying to colonize virtual places, platforms ‘where the audience is at’ (Walden, 2016), such as Facebook, Instagram or Snapchat. News outlets have realized that

they are losing large sections of (younger) audiences to social media where users have found a different form of social cohesion, one that is not primarily signified by geographical community but rather by interests and identities. On social platforms like Facebook or Instagram, (young) users come across journalistic content rather accidentally, leaving them unable to sufficiently assess its accuracy (cf. The Media Insight Project, 2015; Weichert and Kramp, 2017). So, news organizations pursued a pragmatic strategy that rapidly grew into an uneven collaboration between web companies and news organizations, which has been described as platform dependence (Newman, 2018: 12). Recently, this became a serious issue for the business strategies of news publishers when Facebook announced that its algorithm would be altered in order to offer its users more influence in deciding what content would be seen as ‘trustworthy, informative and local’ by it (Zuckerberg, 2018).

Young adults especially use social media to communicate, inform and entertain themselves and thus disregard traditional media (cf. Wadbring and Bergström, 2017; Weichert and Kramp, 2017). While some news organizations have launched fresh news brands that cover topics that directly address a younger audience (cf. Kramp 2017), those regularly do not have an explicit local focus, even though a perception of ‘urban youth culture’ is sometimes prevalent (cf. Kramp and Weichert, 2017: 203-204).

Particularly, local news media in Germany, which have so far sustained the public discourse on urban and suburban life, are confronted with eroding (in particular younger) audiences and a marginalization of their discursive influence on other public fields like politics, the economy or civil society and its actors. In the digital era, audiences are increasingly likely to be strongly influenced by new public actors, such as a broad variety of consumer industrial companies, collectivities like social movements or business associations and individuals like social media ‘influencers’ (cf. Booth and Matic 2011) disseminating information, interpretations and options that do not follow journalistic principles. As deeply as urban news organizations are interconnected with the historical weal and woe of their city, they are nowadays complemented by an often confusing plethora of alternative sources of information and polymorphous forms of mutual communication between individuals. Urban dwellers draw on a very diverse selection of media sources to cope with, learn about or adjust to circumstances, conditions and specificities of local civic life, no longer relying mainly on newspaper or broadcasting journalism to follow the ‘city beat’ (Sharma 2005: 149). Local journalism might have served the public for centuries with information and orientation, even mobilized citizens to participate in local public affairs and integrated communities just by its steady reporting, but its

future, especially in deeply mediatized cities, is already deemed uncertain (cf. Nielsen 2015: 16).¹

The requirement to sustain an informed public becomes even more complex in a transforming city culture which constantly differentiates itself further: The individualization of media repertoires and communicative networking, especially among young people, tends to cultivate a landscape of heterogeneous local and trans-local groups which are hard to grasp by a provider of shared news. This raises the risk that cities lack a common ground for public reasoning. Whereas local mass media earlier reinforced a (at least imagined) common public space of reference for communal action and public discourse, the pervasive differentiation of communicative practices via technical communication media evokes sees the dwindling of this shared spatial reference and creates a serious crisis for public space in the mediatized city (cf. Mela, 2014; Kramp and Novy, 2013).

3. Communicative figurations in city life

Urban sociologists stress that with the rise of digital information and communication technologies, dimensions of space and geography become increasingly irrelevant, stretching the concepts of community and sphere of life into cyberspace. The urban increasingly prevails as interconnected ‘nodes of activity across metropolitan spaces’ (Gottdiener and Hutchison, 2011: 388). This raises a question about how a productive relation between physical and virtual urban spaces is established by the communicative practices of a variety of actors in general and how this can take place between journalists, groups and individual citizens. Hess (2013) introduced the concept of ‘geo-social’ news to grasp this new relation of geographically and virtually linked spheres (Hess and Waller, 2014: 131). It emphasizes the journalistic task to see the boundlessness of global flows from a local perspective and to contextualize the social space they circulate in. In doing this, news organisations need to retain the trust of citizens in an increasingly complex situation. As Hepp, Simon and Sowinska (2017) show, the desire of young people to follow news and commentary about the transformation of life worlds in the dense urban environment of a city has not vanished. On the contrary, young people belong to a wide variety of communicative figurations and use information and communication technology in ever more versatile ways to learn about the changes occurring around them.

1 Nevertheless, we should not forget that journalism has always struggled to fulfil its integrative societal function. The demand for low-threshold news services, especially for low status groups, is still high, raising the bar even higher for accessible and engaging reporting (cf. Farwick 2012: 391).

Communicative figurations are understood as interdependencies in specific social domains – or “spheres” as being meaningful in everyday practice’ (Hepp and Hasebrink 2017: 23) – comprising actor constellations, frames of relevance and communicative practices. Mediatization research has traced an ever more complex and intensified moulding of social domains by technical communication media (cf. Lundby, 2014; Hepp and Krotz, 2014; Hepp, Breiter and Hasebrink, 2017). With more media affordances available to everyone, they are interwoven with each other in all thinkable contexts. Couldry and Hepp (2016: 56) describe this as ‘media manifold’. To understand the consequences of these local news media, it is worthwhile to ask how repertoires of communication change in deeply mediatized urban spheres (Hasebrink, 2017), where numerous alternative forms of communication can change the flow of information quickly and profoundly (cf. the rise of direct messaging apps like WhatsApp or Facebook Messenger in everyday mutual communication). This puts urban news providers and individual reporters in a constant state of flux. The problem of how to *engage* with citizens constantly structures the modes of news production, distribution and follow-up interaction between journalists and members of the audience. News organizations see themselves under constant pressure to adjust to the changing needs and motives of recipients. This puts particular pressure on the journalist-audience-relationship, assuming that journalists want to help and constructively address social inequalities and conflicts as providers of news and commentary, and thereby orientation in the service of the public good.

Exploring these questions can be framed by pointing to five dominant trends of the changing media environment, as outlined by Hepp and the ‘Communicative Figurations’ research network (2017: 17). First, we see continuing *differentiation* in the growing number of technical communication media. Second, there is increasing *connectivity* between these media and between individuals, collectivities and organizations via these media. Third, the media landscape is characterized by the *omnipresence* of digital communication media affordances that offer a permanent state of being connected nearly everywhere. Fourth, there is the dynamic *pace of innovation* with new (digital) media and services being constantly introduced; and finally, all these trends are supported by spreading *datafication* whereby the exponential growth in digital data becomes an ever more relevant factor in structuring social life.

These trends imply more opportunities than threats for the enhancement of urban journalism in a mediatized society. However, they also demand dynamic and flexible change management for editorial innovation. Public engagement requires the dissemination of information, the enabling of conversations and the empowerment of citizens to understand and participate in the decision-making process

concerning the direction in which the transformation of the city should go (cf. Firmstone and Coleman, 2015: 122-123). Prolonged differentiation and connectivity pose challenges to three key requirements: 1) the distribution of content has to be organized via various own and third-party platforms and services, 2) news organizations have to develop new conversational routines to engage citizens and 3) they need to be able to scrutinize their ability to foster a critical public sphere that bolsters citizens' political participation. Audience engagement has become a new paradigm in the media industry, in particular in the news sector where engagement strategies have complemented editorial news work with various communicative practices that mainly make use of conversational interfaces on and inspired by the social web (cf. Meier et al., 2017). At the same time, the question of how digital connectivity can lead or at least relate to social cohesion in the mediatized city is widely under-investigated (cf. Tosoni, Tarantino and Giaccardi, 2013; Aiello, Tarantino and Oakley, 2017).

At the same time, ubiquitous computing has promoted the idea of a 'smart city' (Townsend, 2013) where digital technologies are deployed to facilitate life in urban spaces of high population density. The Internet of things, the use of wearables, locative media and near-field communication (cf. Doherty, 2018: 8) have shaped communication practices in urban contexts. Often this development is not driven at all by news organizations but by local governments that team up with influential IT and electronic corporations: 'A key question for critical urban research is around the extent to which these companies are becoming the urbanists of the future, and important architects of contemporary urban growth coalitions' (Luque, McFarlane and Marvin, 2014: 82). On the other hand, the field of digital innovation in the smart city has become contested by pioneer communities who use digital media technology to contribute to an informed public (cf. Hepp, 2016). These 'flexible data professionals who aspire to work in the public interest' (Baack 2017: 16) are in a constant competition with corporate actors who strive for commercial benefit from digital transformation. News organizations have yet to acknowledge their role in this trial of strength between conflicting interests.

4. 'Locative media' and 'locative news'

Proximity is traditionally one of the strongest news factors, signalling the relevance of current information for individuals' living environment (cf. Goggin, Martin and Dwyer, 2015: 44). Newsrooms in Germany have experimented, but seriously struggled to intensify their local reporting by covering individual neighbourhoods and addressing respective residential publics. Although engagement with the news

(and with news workers) promises to become more responsive for audiences when following locative approaches (Boyles, 2017: 955), this kind of ‘excessively local news’ (Hess and Waller, 2016) has not yet proven to be economically viable, for neither traditional publishing houses, broadcasters nor start-ups. The German news market still relies heavily on long-established structures of production and distribution. This means that the mass-media principle translated into news websites that offer local and regional reporting cannot be easily scaled down to the level of districts or even residential areas in order to provide tailored hyperlocal news. Hyperlocal journalism aims at news that is relevant in the immediate vicinity of people’s homes, e.g. in their neighbourhood or district. While empirical studies show great interest from people for such news in Germany (cf. overview in Möhring, 2015), respective news ventures have not been successful in terms of outreach or advertising revenue. Therefore, hyperlocal news outlets have mainly been run by projects and enthusiasts (often unpaid or underpaid) to serve a particular community with (critical) news on social and political issues (Fröhlich et al., 2012).

Since smartphones, GPS positioning technology, public Wi-Fi, Bluetooth and other wireless technologies have become readily available, primarily in city centres, ‘locative media’ – ‘media of communication that are functionally bound to a location’ (Wilken 2012: 243) – have experienced considerable expansion in many areas, but not in terms of news production and distribution (cf. Frith, 2015). Mapping technology enables users to navigate, but also to access various location-specific information (text, pictures, videos, sound) and even annotate or create customized maps with aggregated data and curated content (e.g. Google Maps, Apple Maps, Open Street Map). While this practice has an obvious functional value in a social world that is characterized by increased mobility (cf. Pellegrino 2006), it also offers ways to produce and enhance the meaning of places, trigger the curiosity of otherwise hard to reach audiences or even help in building new or reinforce community bonds (cf. de Souza e Silva and Firth, 2012; Silva, 2014). Location-based services are widely used for navigating the urban sphere, as a knowledge resource to explore new places, learn about travel destinations or residential communities, but also connect with people on site. Furthermore, ‘geo-tagging’ has become a quite common and automated activity with digital content (pictures, videos, texts) generated by users on their mobile phones appended automatically with geospatial metadata and published on social media (cf. McQuire, 2016: 7).

These new practices of media appropriation and data generation raise questions about the ownership of publicly available information about urban places: Lemos (2010) coined the term ‘informational territory’ to point to a power struc-

ture with respect to a digital information flow conjugated with a physical area. The question of who controls, adds to and repurposes location-dependent information at the intersection between urban space and cyberspace is virulent. Corporations that strive to market their commodities are already in situ and competing for the digital traces of users to increase brand awareness and sales. Also, users themselves are empowered to share their sense of place via 'creative interventions' and to hybridize the informational territory by the use of locative media (cf. Lemos, 2010: 416-417).

Experience from Norway shows that location-sensitive journalism has the potential to generate interest in local reporting, especially among young media users. The *LocaNews* project, run by researchers from Bergen and Volda, experimented with a prototype for a smartphone news app that delivers articles to an audience dependent on the physical position of the individual user, based on GPS data (Nyre et al., 2012). Together with entry-level media students with an average age of 21 years, the researchers explored how the spatial notions of students affect the production of local reporting with respect to different levels of proximity to specific locations. The team used a tripartite scale of proximity zones to produce three versions of a single news story, serving users with 'ultralocal, hyperlocal and local news', depending on a radius of 100 metres (on site), 100-500 metres (in the neighbourhood) and more than 500 metres (in the town) (cf. Øie, 2013: 563). In a qualitative survey of 32 visitors (average age 29) to a sports festival in the Norwegian town of Voss, many respondents found this form of local journalism 'more interesting', 'more entertaining' and 'more informative' than the usual forms of local reporting (Øie, 2012: 172). The questions, experiences and implications of such experiments are intriguing: Since the advent of the social web, news organizations have explored various ways to create new kinds of on-line presence, besides their central news websites, by unbundling their content and partially giving up their sovereignty over distribution, audience engagement and the advertising business, due to their platform dependency on Facebook and other platforms. Locative news instead offers a new access point for the reception of and interaction with local journalism, based on the particular expertise of local news organizations.

In the United States, participatory news mapping was so successful that the Web-based local community network *Everyblock* (founded in 2007 to provide microlocal community news by and for citizens), was acquired by Comcast/NBCUniversal, the world's second largest media corporation, in 2014. It has now been rolled out in roughly ten cities across the US. The platform follows a 'Be a better neighbour' principle, understands itself as a 'digital version of an urban street: an exciting, surprising, diverse place' and promotes local bonding (cf. Oppegaard,

2014). Users can post messages and events and comment on geo-tagged (hyperlocal) articles, e.g. crime reports, property listings, meetups and conversations neighbours are having. There have also been a few attempts by news publishers to explore the location-dependent distribution of their content in cooperation with the search-and-discovery mapping app *Foursquare* (cf. Kirchner, 2010; Sherk, 2010; on the sustainability of the concept: Gell, 2017). Apart from some limited projects, locative approaches have hardly reached noteworthy prevalence among local news media. As Weiss (2015a) has outlined, news organisations are mostly attracted to adopt geo-location features for automated sections like weather and traffic information. Otherwise, they have tended to shy away from efforts to develop connected and interactive news formats that take advantage of geolocation technology and related innovations associated with the emergence of the smart city. ‘Journalists are coming late to this party’, states Faleiros (2012): ‘While social networks are quickly making advances in mapping people’s locations and giving them geotagged information, media organizations have not transformed their own content into layers of information that can be effectively combined with satellite data or other large-scale scientific mapping.’ This delay is often due to limitations in the compatibility of content management systems in newsroom operations with emerging digital technologies. It is also based on economical hesitation with respect to costs for staff and software engineering and related to the persistence of established routines in journalism practice that were solidified over decades and are not likely to change quickly (cf. Nyre et al., 2012: 300).

Nonetheless, the pace of how locative media in various non-journalistic fields (cf. Wilken/Goggin 2015) continues to grow into a powerful way of disseminating knowledge and capitalizing on marketing is noteworthy. ‘Out of home’ advertising has built efficiently on the spread of digital infrastructure in urban areas by using geolocation technologies and it registers steady growth and high adoption rates among consumers (cf. Stalder, 2011; Provenzano, 2018). Also, large tech corporations continue to invest in location awareness functionalities for their platforms and services (cf. Burrus, 2018). As the technology is constantly evolving, with third-party services offering algorithms and modules to geotag and distribute in location-aware settings, news organizations are yet to develop sustained location-based access to the richness of their local reporting that rests in the digital archives of their news sites. Furthermore, as Salovaara (2016) has pointed out, this relates less to the question of product and more to journalism practice and skills in the first place, in order to exploit an operational framework for engaging locative news production.

5. A location-awareness approach to urban journalism

In 2016, a consortium of three institutional partners in cooperation with local two news organizations² successfully applied for funding from the Digital News Initiative that was initiated by the tech corporation Google to support sustainable innovations in journalism in the European news market (cf. Ellis, 2015; for a critical view: Kayser-Bril, 2017). The project aimed to address the crisis in the urban public sphere constructively with the development of a data-driven framework for urban journalism in the form of a research and development lab. The *Urban Storytelling Lab* (USL) is conceived as a creative editorial space in which new engaging formats for urban journalism are generated, prototyped and tested in a collaborative space for journalists, journalism students, software developers and UX designers. By establishing the USL, the partners involved— including two leading local news media (the newspaper *Hamburger Abendblatt* and the public regional broadcaster *NDR*) – aim to enhance civic engagement and participation in democratic processes with engaging news formats that are rooted in urban places, using location-based computing and services as well as a broad range of interactive features (e.g. data-driven reporting, 360° photo- and videography, Augmented Reality, Virtual Reality). The main objective is to create a new reporting environment for urban development by helping local news organizations – that do not necessarily have the resources and expertise to apply emerging digital technologies to their reporting – to produce and publish geo-based storytelling formats referring to open data connected to public places. The development output of the USL will be implemented on news websites and in the social media outlets of media partners who have committed themselves to improving their audience engagement with the thematic focuses in question.

The *Urban Storytelling Lab* focuses on both the location-dependent distribution of news and the integration of innovative, engaging and geo-based interaction with news. This is not merely a question of proximity-based sorting of news content, it is also about creating location-sensitive news experiences that exceed the textual level of perception, integrating text, photography, video and audio, data visualizations, social media content, augmented or virtual reality. Based on an agile collaborative project management methodology, including design sprints and hackathons, development seminars with media partners and application prototyp-

2 The ‘Urban Storytelling Lab’ is headed by Stephan Weichert (editorial development and project management, Hamburg Media School), Leif Kramp (research and evaluation, ZeMKI, University of Bremen) and Timo Lundelius (software engineering, WeBuildCity) and initially involves two media partners: the leading local newspaper *Hamburger Abendblatt* and the regional public service broadcaster *NDR*. The lab is coordinated by Lennart Kutzner.

ing, the main emphasis of the project is on a design thinking methodology (cf. Plattner/Meinel/Leifer 2010) that addresses the demands and expectations of local audiences and leads to a geo-based platform for the location-based distribution of and interaction with news in innovative data-driven formats.

Hamburg lends itself very well to an experimental research and development project like the USL: The second largest German city consists of diverse districts with distinguishable profiles and public images, yet still has a relatively coherent metropolitan identity (as opposed to Berlin, for instance, with its strong emphasis on its culturally disparate 'Kiezes' neighbourhoods). The city of Hamburg has experienced an unprecedented transformational process in terms of a number of iconic building and development projects: The Elphilharmonie concert hall opened in 2016 after a decade-long controversy about soaring costs and eroding support from the city's population; the HafenCity quarter became Europe's largest urban development project in a city centre, Neue Mitte Altona ('New Centre Altona') will relocate a complete main-line station to the west side of the city and restructure the core of the Altona quarter, the Hamburger Deckel project ('Hamburg's Lid') will cover the autobahn A7 which cuts through the west side of the city in order to reunite the affected parts of the city with a green park belt; and the housing market generally is over-inflated. Historically and currently, Hamburg is a city of social dynamics and conflicts, with a lively cultural scene and strong gentrification, but also political radicalization: The protests against the G20 summit in Hamburg in 2017 went down in history for their exuberant violence. Beyond that, the city government has proclaimed a digital agenda for Germany's long-enduring print media capital that foresees the penetration of 'all areas of life, work and learning' by digital technologies, with a focus on mobility, economy, public administration, infrastructure and civic participation, as well as the education sector, and also European interconnectedness with the aim of democratizing information and communication contexts so as to increase the outreach for information and products, promote new efficiency potential and increase the usability and usefulness of services (Scholz, 2016).

As a starting point, two surveys among readers of the local newspaper *Hamburger Abendblatt* (n=264) and among listeners and viewers of the regional public broadcaster NDR (n=145) were conducted regarding their interest in local urban news on the transformation of the metropolitan area of Hamburg. Against the background above, it is not surprising that the vast majority of respondents in both surveys saw Hamburg's transformation as most clearly reflected in urban development and building projects. Changes in the property market and the changed composition of the urban population were also prominent. More than two-thirds (HA) and three-quarters (NDR) of respondents are critical of these changes, showing that the potential interest in critical reporting on these topics is high. At the same

time, the need for differentiated and illustrative background reporting (not merely opinion-based criticism) can be assumed. The most frequently mentioned terms and thematic areas in the NDR survey were construction sites/urban planning and improving the quality of life (especially through environmental protection), reporting on traffic issues (from public transport to traffic jams to the improvement of cycle tracks) to the strengthening of citizen participation. In the HA survey, subjects like transportation and traffic, modes of citizen participation/inclusion in the transformation of the city, questions of urban/living space development and the state of schools, as well as green spaces and environmental problems, are mentioned, as well as the change in the composition of the urban population due to immigration (of migrants/refugees).

The interest in local news coverage tends to focus on local spheres of life: for 58% (NDR) and 47% (HA) of the respondents, information from the immediate neighbourhood is 'very important', 47% (NDR) and 53% (HA) of respondents say that their larger district is of great interest to them. Information that is concerned with the even larger city quarter level, on the other hand, is only 'very important' for 32% (NDR) and 42% (HA) of the respondents. This underscores a point of interest on a more hyperlocal level, which is not covered sufficiently by established news media.

A clear majority of respondents (81%, NDR; 77%, HA) are willing to take part in a public discussion on the transformation of their city. However, only 19% of the users surveyed via the NDR stated that they were 'very likely' to engage publicly via a news medium (app or website), in addition to which there were 24% who 'probably' would. Among the respondents to the HA-survey only 13% would be 'very likely' to participate in this way, 27% would be 'likely'. More than half of the respondents were undecided or rejected such a form of participation. Here, it becomes apparent that urban news outlets are not (yet) considered a suitable channel or attractive platform to participate as citizens in a public discussion. Nevertheless, the examples of *Facebook*, *Instagram* and some location-based platforms like Foursquare show that easy to use low-threshold interaction features can be successful in engaging users with content and spur discussions. This is crucial as '[i]deas about the broad possibilities of digital media for urban living' (Hepp/Piet/Sowinska 2017: 76) all too often do not resonate fully with people's everyday reality. This calls for testing whether, for example, forms of direct communication –with editorial staff, with other users or commenting on or adding editorial content to a geo-based web app – might be able to bridge the gap between the increasingly common social media practice of expressing individual attitudes on online platforms and the use of a news outlet.

Consequentially, the respondents were asked *why* they wanted to be informed about the respective changes. The answers to this question were disparate. It is noticeable that in the NDR survey, well under a third of the respondents stated that they wanted to find out more information in order to be able to take part in the conversation. The NDR participants were mainly motivated by their personal involvement as residents or commuters (61%) and a majority of them had an interest in actively shaping the transformation of their city, thereby wanting to inform themselves (56%). The HA respondents, meanwhile, wanted to be well-informed out of general interest (approx. 60%) and in order to be able to join the conversation (58%). The fact that fewer respondents in the HA survey were motivated as residents or commuters may also be due to the composition of the readership of the newspaper, which mainly lives outside Hamburg's city centre. However, more than half of the respondents in both surveys were interested in actively shaping change. All four reasons for being informed mentioned above scored high. Hence, there is potential for involvement.

The majority of respondents want to be informed about what is happening in general and to critically monitor the actions of the powerful in politics and business. However, only a minority obtains information about change in Hamburg in order to discuss it with other citizens (12%, NDR; 8%, HA). Follow-up communication is therefore not a predominant goal for news, rather a self-centred interest in information. Users want to be well-informed themselves and then express their opinions, but they do not necessarily want to discuss change with their fellow citizens. Most of the respondents prefer traditional forms of communication, such as text and photos (analogue or digital). Interestingly, however, the 'comprehensible visualization of complex data' is favoured over video/audio (analogue or digital), both with the ratings 'I like very much' or 'I like'. The fourth-ranked category is 'reporting with direct interactive involvement of opinions from the population', followed by the fifth-ranked category 'thematically specialized mobile apps'. The survey results differ in their ranking order only in the evaluation of innovative forms of digital content: While those surveyed via HA prefer Virtual Reality over interactive online content, such as interactive animations and 360° photos and videos, those questioned via NDR prefer it the other way round. Users favour familiar forms of presentation which ensure that information is conveyed as efficiently and effectively as possible. However, since data journalism receives higher approval than video and audio, the visualization of complex data on the transformation of the urban sphere seems to be a promising direction for further development.

The *USL* plans to build a platform for location-dependent urban journalism with an appealing and lucid user interface. With many fields of experimentation in journalism practice trying to nurture the mediation potential of, for instance, the vi-

sualization of open data, 360° photography and videography, Augmented Reality or Virtual Reality, the stakes are high for local newsrooms to keep up with the pace of innovation (cf. Newman, 2017: 24-25; Schmierer, 2017). Furthermore, with mass phenomena like *Pokémon Go*, a smartphone application that took the world by storm in 2016, gamification elements could also be seen as a promising way to go (cf. Goggin, 2017). However, in Germany (but also elsewhere), newsroom cultures, corporate structures and budgetary limitations are often obstacles to reinforce strategies for open editorial change management (cf. Kramp and Loosen, 2017).

Therefore, the USL platform itself is being developed together with two major news organizations to ensure proper integration into content management systems. Also, the platform is being developed as a *sum of its parts*, where each is meant to help local reporters on its own to create an engaging news experience without necessarily having technical expertise in the application of emerging digital media technologies. The lab's objective is to enable local newsrooms to adopt the required skills to follow a locative approach to engaging urban reporting. Journalism students and experienced journalists together develop formats that have the potential to be adopted easily by local newsrooms to complement conventional forms of news presentation in the urban sphere. The formats to be developed include geo-tagging, visualization of complex data, augmented reality applications, social media storytelling and conversational bot technology. In its parts and in sum, this can help urban journalism practice to meet the actual information needs of residents, commuters and tourists in their immediate urban vicinity with comfortable easy to use access to news with accompanying options to interact and participate.

Adopting principles of ambient journalism (cf. Hermida, 2010; Sheller, 2015), the platform will be based on GPS and mapping technology, providing several layers of news content on the immediate surroundings of the user. With the datafication of media use, journalists could emulate marketers' actions and deploy analysis data of their users to gain a deeper understanding of how local reporting is appropriated by members of the community and how it contributes to shape their conversations (cf. Weiss, 2015b: 126). The location data of individual users enable newsrooms to address them directly, depending on their current location, and involve them in editorial matters, e.g. in the form a 'call to action' which opens up alternatives for occasion-related audience engagement. If journalists can draw on closer contacts with residents in that way, the communicative relationship with audiences could be solidified and the journalistic function as a supplier of relevant news, a moderator of the public conversation and an intermediary between the various stakeholders shaping urban transformation, could be consolidated.

The imagined goal of the USL experiment is a new kind of location-aware journalism. Such journalism not only relates abstractly to the world, but becomes part of the real-life experience of its recipients, whether they stroll around the city or stay at home. Proximity reporting zones can introduce tangible and comfortable access to local news. With the adaptation of popular communicative forms like the use of digital cartography as a structural order for news, journalism itself occurs in a different shape, which differs decisively from conventional forms of accessing local news. Urban journalism coalesces with the urban space on which it reports. Public spaces become publishing spaces in which journalists and users start conversations. Data-driven visualization techniques like AR or VR make it possible to look behind the bricks and mortar of buildings across the street, bringing building sites to informational life, giving perspective to faceless concrete and glass monoliths and visualizing complex (social, political, economic) processes that all characterize urban development. This will ideally lead to deeper, contextual and vivid reporting, but it might also trigger civic participation.

6. Conclusion

‘The digital media environment undoubtedly represents considerable potential for inspiring new forms of local journalism, but so far few have managed to realise that potential and establish sustainable forms of born-digital local journalism’, states Nielsen (2015: 17). In its collaborative and experimental setting, the *Urban Storytelling Lab* tries to raise the bar by following an experimental and integrative approach, bringing early career journalists and senior editors, newsroom strategists, software developers, UX designers and researchers together to ensure sustainable viability of the project’s outcomes. With high hopes for altering newsroom cultures to encourage editorial experimentation, user-centred perspectives and design thinking, research and development intertwine to create valuable user experiences.

User tests will show how a platform for locative news might flourish on urban territory, how audience engagement has to be orchestrated to have a detectable effect. The main impediments to overcome include geo-tagging potentially large corpora of archived news content, codifying location awareness into standard editorial workflows and promoting the further development of location-based interactive formats using open data, AR or VR technology. By achieving this, local journalism could devise a novel and genuinely natural point of access for its audiences to stay informed about urban matters that relate to them according to their actual geographical position. For communication and media researchers, the related field of transforming journalism practice, newsroom organization and

news business is not only an opportunity to study but also to participate in actual developmental – and, more profoundly, to shape the oft-debated future of journalism (cf. Lowrey and Shan 2018).

Community cohesion will continue to be a predominant issue for cities that have to face a changing population structure and economic growth or decline. Local journalism has a lot to discover by taking the changing audience perspective and geographically guided perceptions of the urban sphere(s) of life seriously. A reinforced sense of place can develop into a sense of getting involved. This can lead to a (stronger) sense of community and a lively and informed urban public sphere. First results of the *Urban Storytelling Lab* are expected in mid-2019.

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Biography

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