Social Media and Cities: a case-study based analysis of how digital life influences the urban physical environment

Iman Naja
iman.naja@open.ac.uk
The Open University
Milton Keynes, UK

Miguel Valdez
miguel.valdez@open.ac.uk
The Open University
Milton Keynes, UK

Alessio Antonini*
alessio.antonini@open.ac.uk
The Open University
Milton Keynes, UK

ABSTRACT

Social media influence materialises in the physical world by shaping our urban environment and changing the modality we experience. This under-explored outcome still lacks the conceptual tools to build a discourse around it. We present a case study that showcases how urban planning and development are influenced by social media and a first framework addressing the interrelation between social media, urban design, and the experience of the urban environment. This short contribution provides concepts for critically analysing the physical implications of social media-based ubiquitous hypertext systems.

CCS CONCEPTS

• **Human-centered computing** → **Hypertext / hypermedia**; Smartphones; • **Networks** → *Social media networks*.

KEYWORDS

Social Media, Smart Cities, Hypertext Paradigm

ACM Reference Format:
Iman Naja, Miguel Valdez, and Alessio Antonini. 2024. Social Media and Cities: a case-study based analysis of how digital life influences the urban physical environment. In *35th ACM Conference on Hypertext and Social Media (HT '24), September 10–13, 2024, Poznan, Poland*. ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3648188.3675144

1 INTRODUCTION

Social media bring forward deep social implications, so much so that it is hard to argue against. Indeed, clear examples of social media affecting cities are in the news. In the UK, online groups coordinated the hijacking of the CCTV system of the London Ultra-Low Emission Zone by physically removing cameras from the streets. Similarly, anti-colonial movements took charge of the systematic removal of historical, if controversial, monuments and statues. These events seem to be disconnected, yet, as we will argue, they are just the most visible (and possibly violent) expressions of a structural connection between social media and the urban environment. Thus, some of the implications of social media materialise in the physical world by shaping our urban environment and changing the modality we experience. This is a less expected outcome of social media that is worth addressing in order to develop the necessary conceptual tools to build a discourse around these phenomena. This contribution presents a case study that showcases how planning and urban development are not only influenced by social media but may also be for its benefit, and how social media has become a novel angle from which to read about the city with its merit.

From hypertext lenses, social media reifies social interrelations, making our tension or will toward them *tangible*. The will and effort to relate with others becomes the central digital artefact that is used to augment conversations, narratives, and activities. These now materialised social statements are the source of the social implications that we do not only expect but which have become the core of the social media value proposition. Reconnecting with old friends against the barriers of time, space and a life apart, or electing our community in opposition to what our close reality offers, such as work colleagues, neighbours or relatives. The possibilities offered by social media entail a specific hierarchy that places these social statements above material constraints, which is the source of the less expected physical implications we discuss in this paper.

Social media change the way we experience the urban environment [6]. These impactful changes are investigated in this paper through a case study showcasing how social media is one of the root causes behind the drive for innovation of services and technology, especially in highly economically and technologically cities in the Global North. The case study thus becomes an entry point for developing a framework for the interrelation between social media, planning, and our collective experience of the urban environment. The framework is intended to support the Hypertext community in designing and analysing social media and ubiquitous hypertext systems like interactive maps and site-specific installations.

Through social media, the use of hypertext as a method of inquiry, knowledge representation and social fabric has now escaped the lab and the computer room, becoming adopted by the public at large. Hypertextual inquiry thus becomes a distributed endeavour with emergent taxonomies and rules that escape centralised control and predefined boundaries [35]. Social media therefore introduces productive tensions into emergent forms of urban life which increasingly rely on structured, interconnected and complex information systems, with social media acting as an increasingly widespread interface through which humans make use of those systems. Importantly, the real-timeness and data richness of such systems have now become crucial tools for thinking about, relating to and navigating a complex world. Such hypertexts are expected to be almost literally omnipresent and always accessible, to the point that their absence is perceived as an interruption to the practices of everyday life. It is well established in the literature that social

*Corresponding author.

HT '24, September 10–13, 2024, Poznan, Poland

media is already used as a platform to influence or direct the development and planning of urban spaces and that data from social media is being used for urban analysis and modelling. However, in this contribution, we show that urban planning and development now cater to social media, and thus, we argue that the materiality of the city is now in a mutually constitutive relation with the demands of social media.

We also discuss hypertextual social media practices in terms of the materialities (e.g., infrastructures), skills and meanings through which urban life, urban form and hypertext now continuously reshape each other in a feedback loop powered by the attention economy. As we do so, we attend to the urban rather than the global- we attend, for example, to the physical footprint of the networking infrastructures needed to make social media available in specific sites, but we do not investigate the carbon footprint of the remote data centres used to store, process and distribute the massive volume of data produced by it. Impacts on climate change and the environment are therefore out of the scope of this paper.

The rest of the contribution is structured as follows. Section two provides a brief background on the relationship between social media, technology and cities. Following, we provide an analysis of the case study and a conceptual framework for the analysis of this phenomenon. Lastly, the concluding section addresses the scope of the intertwined relationship between social media and cities.

2 RELATED WORKS

Technology has been broadly defined as "a configuration that works" [30]. This definition usefully expands the scope of technological analysis, which must go well beyond artefacts and devices in themselves to attend to the networks of sociotechnical relationships that make it possible for technology to work. We therefore investigate social media not as a set of devices and standards, but as a sociotechnical network in which humans, institutions, cities, and (narrowly defined) technologies such as social media applications, mobile handsets and 5G towers are all inextricably entangled in a seamless sociotechnical network.

Although we study social media as a seamless network, seams and dichotomies must be introduced for analytical purposes as we attend to specific interactions within the network. In this section we consider the relationships between cities and technology, the role of social media as a driver of technological advancement, and the impactful mechanisms through which social media shapes urban spaces and our experiences of them. At the time of writing this manuscript, there are no studies about the physical footprint of catering for social media when planning the urban environment, i.e., the benefits that urban planning and development has on social media. We, therefore, consider works related to the other relationships and provide predictions about social media and cities to outline their overlap in the future.

2.1 City & Technology

The mutually constitutive relation of technologies and cities has been a subject of study for the better part of a century, for instance, with seminal works [22] tracing this interconnectedness and coevolution back to the eotechnic era at the dawn of civilisation (eos), defined by technologies for measurement and particularly the clock. This was followed by a paleotechnic machinic age, the clearest expression of which is the steam engine, and the neotechnic phase of electricity, communication, and innovation. More recent calls for critical engagement with the mutual constitution and inherently political nature of networked urban infrastructures focus their attention on the interconnectedness of space and infrastructure [13, 18], intersecting in the landscape of the modern metropolis, through its materialities as well as through the networks of relations embodied in them [13]. The mutually constitutive relation of technologies and cities has led to the emergence of 'smart cities', which incorporate Internet of Things (IoT) networks of sensors, renewable energy integration, intelligent transportation systems, etc. These technologies render smart cities into machine-readable hypertexts whose data-hunger is in direct competition for scarce networking resources against the demands of human users of social media so that the infrastructures required to accommodate both become increasingly pervasive. Here we focus on social media and the pull-push relationship where the resources of the attention economy drive innovation and reconfigure hypertextual practices and cities.

2.2 Social Media & Technology

Social media's benefits from technological advancement are numerous . Examples include IoT, blockchain, AR and VR, as well as AI integration (e.g. chatbots and algorithmic recommendations of advertisements and displayed content). Technology has also benefited from social media through the development of new apps and algorithms that increase its reach and impact and through the resources generated by the attention economy - an economy in which knowledge and information are central to the valorisation process of capital, making human attention valuable and monetisable [5, 7]. Such resources are significant drivers of technological innovation to the point that it is impossible to assess how much of this innovation can be attributed to the push of new technologies or ever-growing markets [3]. More in general, as pointed out in Anderson and Millard (2023), "Hypertext does not happen in a vacuum...when deployed at scale, links become a currency in a financial and political economy that transcends the technology itself...When hypertext becomes a social fabric, it leaves the purely technological realm and becomes a social object that deserves study at that level" [2]. However, those interconnections, specifically from hypertext systems, rarely influence the physical space, with the limited exception of, e.g., digital art installations in museums and cities.

2.3 Social Media and the Experience of Cities

Social media affects urban planning and development by providing inputs and data which guide urban planning and development via measuring urban activities, understanding user behaviour, supporting place branding and marketing potential, event detection and emergency management, facilitating citizen participation and engagement in the planning processes resulting in influencing decision making, hindering plans, etc [23, 31, 37].

Tosoni *et al.* [34] draw attention to the importance of media as an element of the mutually constitutive relation of technologies and densely populated, highly infrastructured urban spaces, as

technologies increasingly support co-presences through media, impactfully shaping practices as well as driving the deployment of material infrastructures. As social media scholarship turns toward the various levels of invisibility and visibility of the infrastructures required for mobile social media to work, it becomes clear that practices of social media are one node among a massive network of materiality [12]. A shift from physical to cyber to hybrid spaces is reflected in reconfigurations of economic and social life as users' experiences of the physical and temporal world are reconfigured [1].

2.4 The Current Status Quo and the Near Future

2.4.1 Predictions about Social Media and Cities. We live in an increasingly urbanised and connected world. It is projected that 68% of the world population will live in urban areas by 2050 [25]. Cities in the digital age are characterised by dense communication networks as well as by connectivity demands that begin to demonstrate non-linear growth. Just looking at the UK, as of 2024, 84.5% of the population lives in an urban environment [16], with 88.86 million cellular mobile connections active (equivalent to 131% of the total population of 67.85 million) [16].

As of January 2024, 62.3% of the world's population (5.04 out of 8.01 billion) are social media users [28], and it is anticipated that this figure will rise as less developed digital markets expand [10]. In the UK, as of January 2024, 97.8% of the population were internet users and over 80% of the population were active social media users [16]. The growth of social media can be expected to place increasing demands on urban networking infrastructures on account of two trends. First, a growing number of users access social media primarily through their mobile devices (estimates vary but are in the range of 68-78%) [9, 36]. Furthermore, social media places increasing demands on networking infrastructures, going from 280-character "tweets" to short-form videos and to live streams that blur the boundaries between social media and video sharing [26]. This development follows from the growing role of hypertext as a structure of sociality. Although short texts can be profoundly evocative ("For sale, baby shoes"..), rich emotional communication for the younger generations increasingly involves voice and video. Video-based social networking is becoming prevalent for the under-17 demographic, with 31% of those polled by Ofgem uploading their own videos and 15% making their own live-streams [26]. Adults are not exempt from these trends as nearly one in five only go online via their smartphone, and 44% of those polled choose their smartphone as the device they could not do without [27].

2.4.2 5G technology. The fifth-generation technology standard for cellular networks, 5G, was developed with the aim of delivering very high data rates (ultra-high speed) with very low delay (ultra-low latency) in densely populated areas (super-large network capacity) while minimising dropped connections (ultra-reliable communication) and supporting user mobility. Several technologies and applications are increasingly benefiting from 5G capabilities, including the Internet of Things, transport and autonomous vehicles, live streaming and video conferencing, cloud games, and virtual reality (VR) and augmented reality (AR) technologies. 5G is being rapidly deployed worldwide and being relied upon in the urban planning and development processes.

6G technology - the sixth generation of cellular networks - is still being researched and trialled but is expected to be available in the early 2030s. Similar to how 5G is 100 times faster than 4G, 6G is expected to be 100 times faster than 5G.

3 CASE STUDY: 5G AT THE STADIUM

The Advanced Radio in Milton Keynes (MarK5G) project aims to support innovative 5G services by improving network performance in high-density areas, e.g., the football stadium or shopping malls, and enabling the safe deployment of autonomous vehicles. Thus, MarK5G aims to leverage the capabilities of cutting-edge 5G technology to forge a seamlessly connected environment that potentially extends throughout the UK city of Milton Keynes and improves the experiences of high numbers of visitors and local residents while reducing costs, disruptions, and environmental impact. Within the context of the project and to gather user and service requirements, we were charged with creating scenarios and extracting user and service requirements.

3.1 Methodology

We interviewed stakeholder project partners covering a wide range of backgrounds, education, and experience in providing technology, policy making, and innovation. They consist of the Milton Keynes Football Stadium (Stadium MK), Milton Keynes City Council, an intelligent transport systems company (Ohmio Automotion Ltd), as well as technology providers.

We used a mixed methodology for qualitative knowledge elicitation consisting of communications with stakeholders and documentation sources in order to develop the scenarios and use cases. Communications with stakeholders included semi-structured interviews using a pool of 10 indicative questions adapted from the literature [11, 14] and a workshop aiming at acquiring the knowledge possessed by the varied stakeholders within the consortium. Collected data were complemented by drawing on documentary sources. These included final reports from the legacy projects MK 5G Create and 5G VISTA [8, 33] as well as documents related to policies and strategies of major stakeholders with potential influence on the long-term success and legacy of the project and future plans for Milton Keynes (e.g., the 2050 Strategy for Milton Keynes [19] and the 2030 vision for the Open University [4, 20, 21]).

The study was approved by The Open University Research Ethics Committee. Participants provided informed consent about the primary and secondary uses of the data they provided. The latter covers pseudo-anonymisation while allowing for the publication of non-attributed quotes and observations.

3.2 Scenario and Use Cases

Four hypothetical scenarios were created for requirement gathering. While the scenarios are fictional, they are grounded in data and the needs of stakeholders and were iteratively developed along with use cases to identify common themes of the current situation and visions of what the future needs to look like, including expected key features and functionalities. They are thus intended to present plausible, internally consistent and challenging narratives of possible futures, allowing participants to rehearse their possibilities safely [29]. The elicited requirements were specific to the city of

Milton Keynes and, more narrowly, to the stadium and its overall vicinity. Note that they are not intended as forecasts and do not represent the positions of the project consortium.

We focus on the scenario revolving around Stadium MK, which was studied as a microcosm of the urban fabrics elsewhere. The scenarios attended to issues and commonalities where features of the stadium were also relevant to high-density residential deployments, commercial and retail spaces, and transport hubs, for instance, to facilitate the generalisation of the findings.

3.2.1 Scenario. Stadium MK is hosting a sold-out concert by a popular band where the band plays on the football field, and the performance is to be broadcast in the stadium's arena for a total of around 40,0000 attendees. The concert has been heavily promoted as a multi-media experience, and many ticket-holders have paid premium prices to access various video feeds. Customers paying for a premium service expect a generally high quality of service, but they may accept some minor issues. A live recording of the concert is being streamed via the 5G network to a contracted recording studio for the production of a live album. The recording is highly sensitive to delays, buffering artefacts or communication losses and a very high quality of service is expected.

A connected autonomous shuttle is in operation around the stadium; the shuttle is driverless but equipped to allow remote control via the 5G network by a safety operator who is closely monitoring in case the need to intervene arises due to the unusual traffic and crowds. Although the shuttle is not central to the event, its effective operation can be a major milestone for connected autonomous vehicles.

Stadium employees, vendors at the stadium, the band's entourage, local commercial and industrial business staff and customers, as well as residents in and visitors to nearby areas, account for the additional presence in and around the stadium. They place additional demand on the network infrastructure and may complain if the event has a noticeable impact on quality of their service.

3.2.2 Use Cases. As a business, one of the most important requirements for Stadium MK is catering to their visitors' needs and expectations and improving their visitors' experiences. Thus, the ability to provide visitors with the advertised capabilities of 5G (very high data rates with very low latency in densely populated areas while supporting user mobility) was a recurring theme whose influence can be tracked within use cases and requirements.

Twenty three use cases were generated, however, five of these were considered out of the scope of the project. Of the primary eighteen, eight use cases are as follows: two use cases are directly related to enabling users access to social media, two to enable users to video-conference, two to enable users to stream videos to their devices, and two to enable the city to monitor movements and actions (parking and traffic sensors). The remaining ten use cases aim to provide and fulfil premium services or add-on products, ensure safety and security, and allow mobile network operators to monitor usage.

3.2.3 User Requirements and Findings. Eleven user requirements were generated, with six centring around providing human users with the expected high speed, reliable, and seamless connectivity. This is to be expected in an era where people expect connectivity; "*there is a demand for networking,* ***people use their phones all the time in the street, they go to events, and they are posting social media about the event****. They're consuming the information about other events that are going on.* ***That is something that is today just life as it's evolved.***" People also expect to stay in the loop about events they attend and to be able to post and communicate information to each other; "***it is very important from the [football club] supporters' perspective in terms of getting service and being able to consume and send information out. It also gives the club [the] opportunity to pass information to the spectators, via our website or other things that we may be streaming at the time***." We, therefore, recognise the requirements as an indication of both deploying technology for the benefit of social media and urban planning and development benefiting social media.

Among the findings, we would also like to highlight the following tensions.

Catering to social media users and premium customers vs autonomous vehicles. Both require ultra-low seamless connectivity in real-time and thus compete for network resources: "*[we need two things:] one is guaranteeing connectivity [to the driverless shuttle] in times of congestion, and the other thing is to make sure that we have coverage where we need it.*"

Catering to the thousands of attendees vs local residents The requirements of deploying 5G in a manner that allows high-density connections without compromising the connectivity of local residents serves as an example of urban planning and development benefiting social media.

Urban planning policies vs technology deployment Urban planning policies affect where the technology may be deployed; "*when it affected the townscape, the landscape, the nature of the area,* ***then we have definite policies that the [city] council have to follow and we had a couple of masts refused in the locations that were the best location for the 5G signal, but not the best location for the community***"; "***if you then put in a planning policy for new developments and the infrastructure is thought at the same time as everything else is planned so that the infrastructure that is deployed will integrate with the rest of the development****. For instance, you don't put one next to the school, you integrate the planning of the school; so, the right location that can be developed that integrate with the whole of the development. So, if you're building 3000 houses in Milton Keynes on a sustainable urban extension, you integrate the infrastructure into the locations that suit the efficient use of 5G, so it's got the coverage you need and then you develop the land uses, housing, shops around it that's suitable. So, you wouldn't put one next to a school, you integrate the planning of a school and just stop annoying the community as much as anything.*"

Public perception and acceptance of technology in urban environments as an obstacle. The city council has limited powers to inform the location of 5G masts, but it has convening power to facilitate dialogues between property developers, communication companies and communities. As local authorities facilitate dialogues about and objections to where the technology may be deployed, social media affects urban planning and development. Milton Keynes City Council, like many other local authorities, has a Telecommunication Systems Policy intended as guidance to communities and telecommunications systems providers as to the forms

of telecommunications developments that will be acceptable to the Council and those which will not. However, planning decisions are ultimately subject to political realities, so consultation processes built into the framework may ultimately override technical considerations.

4 SOCIAL MEDIA WITHIN CITIES

The case study focuses mostly on how social media influences physical city infrastructures by deploying 5G masts and related reconfiguration and developing new services based on this new capability. As an attempt to generalise the lessons learned from this specific use case, the following analysis attends to the urban-shaping potential of the knowledge circulated through it and the collective actions that arise from such knowledge. For instance, social media has a role in the resistance of so-called "blade runners" as they destroy cameras to sabotage the Ultra-Low Emission Zone in London, and similar movements circulate information and misinformation to oppose the 15-minute city concept. Here, the interaction of hypertext and cities escapes the confines of government and planning as decisions about the future of cities are not defined by one actor in rational or analytical terms. Rather, social media becomes embedded in governance, here defined as collective action for public purposes and a recognition of the impactful overlaps of the spheres of the state, the economy and daily life [15]. Spatial imagination, the ability to make urban spaces meaningful and knowable, has long been acknowledged as central to planning and spatial strategy making [15]. Social media has been revealed as an impactful technology, structure, and set of practices that impact space and spatial imagination.

Our analysis builds on research applying practice theory as a lens to develop an infrastructural perspective on social media, which has been applied to disentangle the complex intersection of infrastructural materialities, data, content, and collective practices [17]. We, therefore, investigate the recursive relationship between human activities and structures in terms of practices conceptualised as patterns and as repeated performances of patterns, where each enactment reproduces the interdependences of which practice is comprised. Such interdependencies are, in turn, studied in terms of three elements necessary for any given practice to be enacted, namely materials, meaning and competencies, defined as follows [32]:

(1) *materials* - including things, technologies, tangible physical entities and the stuff of which objects are made.
(2) *competencies* - which encompasses skills, know-how and techniques. and
(3) *meanings* - in which we include symbolic meanings, ideas and aspirations.

Importantly, we also identify how the elements of social media practices rely on different enabling elements at different scales ranging from the individual to the group and, ultimately, the community. For instance, we can usefully interrogate the required materialities in terms of the 5G handhelds (materialities available to the individual) or in terms of 5G micro-cells deployed in a stadium or shopping centre (materialities available to a group). Likewise, those same 5G micro-cells may be studied in terms of the technical know-how required for their installation and management (competencies available to a group) or in terms of the policy know-how required to regulate their installation and govern their harmonious and fair use (competences available to the community). Meanings, ideas and aspirations are also markedly different between levels, from the subjective meanings individuals may assign to being always connected to friends or followers and to the para-social connections to influencers, to the aspiration of companies in the attention economy, the ideals of innovation and convenience of the stadium owners in the scenario depicted, and with communities whose visions of urban future may be nebulous but clearly resist deployments of 5G masts.

4.1 Structure

Social media practices are thus conceptualised as entangled in a mutually constitutive relation with materials and institutional infrastructures (e.g., 5G networks, attention economies, GDPR regulations, local policies regarding deploying 5G masts or using micro-cells). The elements of such structures include, e.g., mobile phones and 5G networks, competencies (including those of media-savvy influencers and those of the technicians ensuring the effective operation of networks) and, importantly, complex constellations of visions and meanings operating at various levels, from the meanings individuals may assign to being connected to friends to those of businesses storying themselves as the next big thing in the attention economy and those of cities using 5G infrastructures to story themselves as innovation hubs.

4.2 Practice

Such structures make practices possible, and practices, in turn, reinforce structures and, in the case of social media, drive resources to them to support the logic of the attention economy. Such practices include those of social media users who connect to their peers and to influencers, as well as those of service providers (social media companies, content providers) and the often invisible practices required to support the effective and reliable operation of infrastructures. Importantly, by conceptualising them as practices, we draw attention to their mutually constitutive relationship and the reinforcing nature of their repeated enactment.

5 DISCUSSION

Like other forms of hypertext, social media has been seen as a system to augment human capabilities, thinking about the world and relating to it. The use case reveals that people who care for urban spaces and plan for their future must now account for social media practices built on expectations of real-time and near-omnipresent connectivity. Social media has become a necessary interface to reality, a hypertext that provides access to information, relations, and shared emotions or effects through which urban environments and global networks become readable and immediate. Hypertext skills needed to enable social media practices are now commonplace and intuitive; meaningful imaginaries of always-connected futures are now seen as desirable and are fueled by the demands of the attention economy. Consequently, hypertext has long since escaped the confines of the computer room or the mobile screen. Social media is now taking over increasingly datafied urban spaces, their materialities begin to be reshaped to support the practices. In turn, digitally-mediated practices and attention economies drive

resources into technological developments and infrastructural deployments. One concern identified in the scenarios is that the demand for social media as a rich hyper-text for humans will be in direct competition with the data demands of smart and autonomous systems. One risk is that the demands will not be met, and practices will be interrupted. Another is that infrastructures such as antennas will become so prevalent that they will negatively impact urban spaces. Several technologies have been considered to address those issues (e.g., micro-cells that make antennas invisible or shared infrastructures that reduce infrastructures' material footprint while still meeting bandwidth demands). However, such technologies are outside of the scope of this discussion. What is relevant is that cities are now read through hypertexts, and practices increasingly assume constant and ubiquitous access to such digital interfaces to complex urban flows and place-based collective moods. As this urban hypertextuality becomes a self-fulfilling prophecy, we suggest that attention to the materialities, meanings and skills that comprise the practices of urban hypertext provide a useful framework for analysis, anticipation and potential intervention.

6 CONCLUSIONS

Through this contribution, we highlighted less-investigated questions about social media effects:

(1) What is the footprint of social media on cities and physical environments more generally?
(2) Are the needs driving the development of next-generation networking infrastructures and technologies mostly driven by social media?
(3) Is innovation now linked to, being seen, and given value via the lens of social media?

While informative, the Stadium MK case study presents limitations about how definitive our account of those questions can be, as we considered them from the viewpoint of an economically and technologically advanced city in the Global North. However, we believe the case study does present some general characteristics concerning the interrelationship between experiential expectations and urban development priorities. Indeed, a clear self-reinforcing loop binds together social media and networking infrastructures. Social media developers adapt to evolving networking capabilities by developing data-hungry latency-sensitive applications so that social media is not so defined by the medium - a 280-character post or a 6-second video clip - but by a seamless interaction with the world. The data-hunger and latency-sensitivity of social media are incentives for demand-driven deployments of more pervasive and capable data infrastructures, to the point that social media requirements inform today's infrastructures. Looking to 5G, the cost of deployment across the EU is estimated to reach €400 billion [24].

The last point we would like to make concerns why this matters and how the insights we hopefully provided can be put to good use. In the early days of web maps, a shocking analysis flagged that these digital twins represented the environment as "deserts" between points of interest (restaurants etc). This harsh comment was spot on about how the digitally mediated perception of places would potentially alter our understanding of the physical world we inhabit. Similarly, on a completely different topic, a wide range of post-Brexit vote enquiries highlighted how social media influenced the vote of rural UK about Turkish invasions despite the lack of any physical evidence. More than before, the case we highlighted shows how expectations built online become predominant in physical matters, a potential risk of disconnection between more ground truths and needs, and the direction of innovation and investments of collective resources. It is worth highlighting that while the Web can accommodate a plurality of options, the material environment does not in terms of resources allocated and the physical space that e.g. infrastructures occupy. Thus, what is the potential role or contribution of the hypertext community? On the one hand, we should incorporate this dimension of analysis while designing hypertext systems (just in case) and, through the study of emerging practices, look into the potential disconnects that emerge. Social media have a specific disruptive effect of being overridden by sheer volume (of information and hoarding users' attention), the lived experience, and creating new risks connected to the combination of geolocation data and real-time public dissemination. However, the biggest and least understood challenge concerns the reformulation of priorities: what we do and the value of the physical space. Do we socialise to create opportunities to live and experience together, or do we use the physical environment to support our digital life? Is the online plurality of views reintegrated by coexisting in the same space, or is our common space being deconstructed and fragmented online? These questions, among others, should find their way to the centre of the hypertext agenda for the next years.

ACKNOWLEDGMENTS

This research was partially supported by the UK Regional Innovation Fund (RIF) through a grant funding to the MarK (Advanced Radio in Milton Keynes) project.

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