Introduction

Placemaking projects have emerged in recent years as cooperative processes intended to improve urban environments by promoting a connection between people and the spaces in which they live. Public space is the key to these initiatives because this is where all the community layers of interaction and activity converge. The design of the physical space has been always considered a factor in the social dynamics of a place. This assumption is based on several studies stating that the configuration of cities, neighborhoods, public spaces, and buildings has some direct influence on how different communities interact with each other.

Moreover, in this digital era, technology has changed the way in which societies experience places and can influence how placemaking happens in the built environment. Smartphones and other technologies allow easy access to all kinds of data about a place and facilitate instant communication among people around the world. One type of digital platform that stands out is social media. For instance, platforms such as Instagram or Facebook have changed many of our social behaviors. They have affected people’s actions, creating new types of social patterns and shaping new cultural features at different scales. Several researchers have argued that, nowadays, the way in which digital technology portrays the image of a place can determine the direction of that place’s development.

This paper explores how placemaking can now be influenced not only by the physical characteristics of a space, but also by its presence in digital media. On social media platforms such as Instagram, places are observed and represented every day. For this reason, these open-source platforms are significant sources of information that can help placemaking processes address how places are used and perceived by people. This paper discusses ways in which the embedded physical-digital features in public spaces can help architects, urbanists, stakeholders, and communities develop successful approaches to placemaking.

The Idea and Challenges of Placemaking in the Twenty-First Century

Placemaking is a term used in several disciplines, such as urbanism, architecture, psychology, and geography, among others. In urban and architectural studies, placemaking is defined as a process that encourages community interaction in order to thoughtfully shape an environment and improve its quality of life. Although most fields debate the definition of placemaking, there is general agreement that placemaking is a process pertaining to a specific place. Place is understood as “the three-dimensional space that is cherished by the people who inhabit it.”

In recent years, the concept of placemaking has been applied to develop urban-architectural projects with the intention of revitalizing communities and their built environments. These projects have been proposed in many regions of the world, ranging from big cities to small neighborhoods. They involve collaborative, multidisciplinary...
processes that aim to improve a place by redesigning its physical infrastructure while also fostering creative, cultural and social practices. Nevertheless, place-making has also received sharp criticism: the potential gentrification generated as a consequence of these projects raises the question of which social groups actually benefit from them, for example.23 However, it is possible to improve the quality of the environment and the lives of its inhabitants without displacing communities if the socioeconomic and planning measures are well-thought-out beforehand.24

Multiple methodological frameworks have been developed for placemaking initiatives. Most of these frameworks are based on scoring tools that measure different environmental, social and economic indicators.25 These measurements often consider different kinds of place expressions, such as physical design (tangible), mental image (intangible) and social practices in a place (mixed).26 One relevant framework for this study has been put forward by the Project for Public Spaces (PPS)27, taking into consideration attributes such as the activities, linkages, comfort and sociability of public spaces as social indicators of success. However, in all these frameworks, the influence of physical design and digital media on the movement and interactions of people in urban environments remains relatively unexplored.

The Relevance of Physical Space in a Digital Era

Many studies have argued that the physical configuration of cities, neighborhoods and buildings plays an essential role in the social interactions taking place in an environment. If different environments are meaningful to people at an intuitive level, people also tend to exchange meaningful ideas with each other.28 This phenomenon, called ‘description retrieval,’ means that people obtain, produce and reproduce information from layout patterns in urban and architectural environments.29 Placemaking interventions can also generate description retrieval because they intend to encourage and reproduce better community practices. In consequence, the newly-designed connections and infrastructure developed by these initiatives have a direct relationship with the human levels of attachment, emotions and social collaborations that can happen within them.30 This understanding has consequences for placemaking frameworks because places are not single local entities. On the contrary, they are influenced by larger systems, such as urban neighborhoods or the whole city.31

For instance, at a macro scale, a neighborhood’s characteristics have significant relevance in the transformation process of a place. Authors such as Stephen Wood and Kim Dovey have argued that the mixture of morphologies, functions and socioeconomic features in certain urban areas has a direct consequence on the production and reproduction of different social practices.32 New pedestrian connections, the land use mix and socioeconomic accessibility by different demographies are just a few of the many factors that can improve the social dynamics of a place. At a micro scale, the design layout of specific public spaces and buildings also has significant relevance in the processes of strengthening a community and boosting interactions among its members. As an example, inclusive urban furniture that affords a range of different uses and activities in a form of built infrastructure that can change how communities perceive and interact with the place and each other. The effects of these design strategies have already been tested in public spaces where it was found that the visibility and accessibility configuration of urban space can determine to what extent pedestrians have engaged with that space.33

*In sum, at both macro scale (neighborhood and city) and micro scale (buildings, urban furniture and public space), design configurations can generate various interpersonal encounters, which have a significant impact on people’s movements and interactions and the environmental quality of urban spaces. These features of urban and architectural environments directly influence placemaking. As a consequence, physical space should always be considered as one of the essential features for successful urban initiatives.*

The Role of Digital Media in Urban Processes

It is important, however, to take into account the increasing influence of digital devices and digital media, generating new types of social dynamics in the built environment. Digital urban media is a collective term for media technologies that, in one way or another, can influence the experience of a physical location.34 Smartphones are a significant example, modifying everyday human routines by searching, receiving and sharing information among people about what to do or how to move in their urban surroundings.35 Smartphones are changing not only communication patterns and human activities, but also socioeconomic processes, allowing people to communicate with each other faster and in ways beyond physical interaction.36

The role of digital media and the ways in which they influence the physical environment have not yet been widely studied. Some authors state that these devices do not change the spatial environment, but allow infrastructure and ideas to be shared around the world as information phenomena, influencing social actions.37 Moreover, even though digital networks provide constant interconnectivity without the physical presence of people, there is and will be a continuous dialogue between physical space and digital technology.

Data from digital media has recently started to be considered at a macro city-scale. One of the most well-known examples is the concept of “smart cities.” Smart cities are “places where information technology is combined with infrastructure, architecture, everyday objects, and even our bodies to address social, economic, and environmental problems.”38 In many smart city projects, digital media technologies are seen as vital features to create opportunities for social contact. They allow people to observe and research the key social processes of cities in real time. Even though the usefulness of digital media is highly debatable, they allow people to have more immediate access to channels of communication and multiple sources of geolocated information, reining urban settlements from the bottom up.39

**Concept of the key place attributes framework based on the Project for Public Spaces (PPS).**

In his book *The City as Interface*, Marjin De Waal considers urban media as a multiplexer in those aspects of community processes that operate at a microscale. He explains that the experiences and practices seen in particular public spaces are an indicator of how a settlement works as a community. However, the ways in which digital media influence a place can determine the direction of its development. It has therefore also become necessary to consider digital media as a feature that is embedded in any placemaking project nowadays.

### The Opportunities of Social Media for Placemaking

Of all the types of digital media technologies available, social media excel in its use in urban processes. Applications such as Facebook, Twitter, Instagram and TikTok are currently the ones most used by people to exchange information across the globe. Moreover, social media added more significance to the community and social power, affecting many people's actions in ways that may have never been observed before.

Social media can also change daily life and connect with each other across the world in real time. There are several examples of placemaking projects using embedded digital spaces on placemaking projects. These approaches can be observed in the Viva Cidade Festival in September 2013 in São Paulo. This project created a digital screen installation known as the Smart Citizen Sentiment Dashboard (SCSD). The project allowed city dwellers to experience views of urban problems such as the environment, transit, safety, public space and housing through an interactive device on the street. This installation used digital media as a tool to generate a space for social expression and encounters.

Another type of strategy already taking place in several cities is that of full access to wireless internet across urban areas, enabling everyday activities that rely on web information such as work, collaborative meetings and even educational events. An example of this strategy is the Brisbane Smart City Collective and Festival held in 2012. This placemaking initiative organized interventions at different points around the city of Brisbane, Australia. For this festival, free wireless access points in the area and Facebook and Twitter channels were used as a tool for people to share, inform themselves and reflect on the different interventions taking place across the city. Moreover, social media added more significance to the placemaking initiative during the festival. Social media channels encouraged new face-to-face encounters after previous discussions took place on these platforms and generated insightful digital connections between built environment professionals and residents which were not present during the events, but facilitated in real time through the internet. These types of digital urban strategies reinforce the sense of community in the area or event for people with similar interests who are physically present as well as digitally connected.

### Digital Urban Strategies for Placemaking Projects

All these instances of communication between physical and digitally-mediated spaces have already been put into practice in innovative urban design projects led by entrepreneurs, tech startups, universities, local authorities and even the residents of small communities. Often the ambition of these urban strategies is, on the one hand, to direct urban settlements more efficiently (top-down strategies), and on the other, to empower citizens with new technological forms of cooperation (bottom-up strategies).

There are several examples of placemaking projects using embedded digital technologies. For instance, media architectural interfaces, which see digital screens on the buildings' facades or entrances, engage with urban users through digital interactions and change urban environments according to an event or day of the year. An example of this approach can be observed in the Viva Cidade Festival in São Paulo.

### Conclusion

These placemaking strategies are just a few of the many that are happening globally, which, in a way are already fully embedded in global urban communities. Currently, there is unexplored potential in digital technologies and communication processes. For design professionals, what digital media foreground is the emerging power of people in carrying out urban design agendas or steering these agendas in another direction. The tools of designers and stakeholders are not simply the physical characteristics of a place or the distribution of functions or land uses, but also the unexplored and emergent potential of people in multiple forms of communication with each other, both physical and digital. Advances in digital technology and communication will continue changing our lives throughout the world, reaching more places, while getting cheaper and more widely accessible every year. For that reason, the contemporary challenge for governors, architects, city planners, technological entrepreneurs and many other political actors of the contemporary city is to find ways to combine physical interventions and digital strategies to create better places that can be more accessible and inclusive for all types of physical local communities and digitally-connected urban publics.
Geolocated public photos of Granary Square, London retrieved from the web app 4k Stogram. Digital media platform source: Instagram.
This paper argues that placemaking initiatives need to take an embedded reality of physical and digital spatial features into account and design urban projects for the future. It offers a new placemaking framework for future use in such projects. This framework is divided into four different realms, considering the physical and digital aspects of built environments at the macro and micro scale. At the physical-macro scale, urban initiatives must contemplate the spatial configuration of the physical setting and its connections for locals and visitors. At the physical-micro scale, initiatives should consider the potential social dynamics of place, especially in terms of design characteristics related to the invisibility and accessibility of a layout. At the digital-macro scale, new projects have to address new design features in such a way that they become digitally engaging places, easily geolocated by both residents and visitors. Finally, at the digital-micro scale, new spatial configuration of the physical setting and its connections for locals and visitors can be held in the digital media era. By emphasizing the importance of digital media as a valuable tool for strategic portrayal on social media platforms so that the placemaking idea can aggregate power and significance for communities, it is only by thoughtful and timely consideration of these aspects that a successful placemaking process can be held in the digital media era.

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Notes
15. Ralph Schroeder, Social Theory after the Internet: Media Technology and Globalization (Rotterdam: Nai010, 2014).
22. Antoine Picon, Smart Cities.
28. Antoine Picon, Smart Cities.
29. Antoine Picon, Smart Cities.