
Creative Appropriation by the Fifth Estate: How Communities Make Digital Third Spaces Together in Public Space

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Abstract

Dutton has argued that as a digital infrastructure, the Internet has served as a fertile soil for the emergence of a Fifth Estate – which can be defined as a non-institutionalized network of interactants who produce and exchange knowledge from the ground up, and as a result, are reconfiguring how people access and organize resources, information, services and people in the twenty-first century. Our field observations of an interactive “Speakers’ Corner” deployed in public space suggests that when diverse publics appropriate such an urban technology, they often spontaneously engage in “Fifth Estate” digital practices onsite, transforming the system into a shareable public interface by crafting third spaces together and “hacking the city”.

Introduction

In the past decades, urban planners, engineers, artists, and designers in metropolitan cities around the world have begun to envision outdoor new media architecture that embed digital technologies – such as networked smart artifacts or digital public displays – in dedicated urban settings. These changes come with the promise that digitally-augmented public spaces might enable new forms of technology-mediated social participation (TMSP), activism and civic engagement [10][13].

In the literature, TMSP is usually associated with online media platforms and social networking services (SNS) such as FACEBOOK™, TWITTER™, YOUTUBE™, microblogs and discussion forums [17]. It is generally understood that the foremost digital infrastructure sustaining what Castells has dubbed “the informational city” – and what many since have called the “digital city” – was largely instantiated on and through the Internet [3]. Indeed, Dutton has argued that the Internet has served as a fertile soil for the emergence of a Fifth Estate – which can be defined as a non-institutionalized network of interactants who produce and exchange knowledge from the ground up, and as a result, are reconfiguring how people access and organize resources, information, services and people in the twenty-first century [5].

Our field observations suggest that Dutton’s conceptual framework may be applicable offline and onsite in urban settings. As a result, we have been exploring how digital technology could be designed in public space to support participatory models that might facilitate new forms of “Fifth Estate” social, cultural, civic and political interaction. However, even if diverse publics may be ready for new forms of digital participation supported by mobile devices, media architecture and interactive screen technology in public space, these technologies full potential has yet to be harvested.

For the shift from-online-to-onsite participation to have a significant impact within the city at large, it must take into account the issues of ease-of-use, universal access, and more importantly, hermeneutics. Users need to feel that their experience and interaction with media architecture has meaning. Largely informed by experts, the design of urban technology often falls short of what people want and need [20]. The result is

such applications and devices may remain underused. How then, are practitioners to address this problem?

Top-down Vs. Bottom-up Design Approaches

While prior research argues that the key to enabling digital practices and tapping into users’ needs is to design for creative appropriation and then learn new design principles from observing different usage [14], more recent work calls for alternative design strategies that could help bridge the gap between bottom-up and top-down design approaches to better harmonize the pace of innovation for a diversity of stakeholders [11].

Indeed, because they are part of a complex civic infrastructure, urban technologies tend to be developed top-down style by public-private partnerships that must consider and accommodate the diverging interests of the different stakeholders involved [4]. For instance, in Germany and Finland, researchers are already in the process of developing permanent public display infrastructures that serve the general public such as information self-service kiosks in urban environments [1][16]. To ensure their economic viability as public infrastructures, these kiosks are being created within horizontal collaborations between the private sector and noncommercial actors such as governmental agencies, universities and other research and social institutions. One of the problems with this model is that it tends to follow market imperatives, which prioritizes the bottom line rather than taking into account social returns or trying to meet the real needs of community.

Some infrastructural models have emerged ostensibly trying to keep the agendas of private industry from dominating urban technology by delivering them as public goods and opening them up to artists and

diverse publics [2][7]. Early studies suggest that digital technologies deployed in these types of settings may lend themselves better to creative appropriation, because their focus on community, culture and art seems to encourage people to perceive them as distinctively-local, shared resources [8][9][21].

The importance of such emerging models for the design and implementation of urban technology cannot be overstated. As digital infrastructures become ubiquitous in public space, their interactive potential needs to be developed to go beyond the usual one-way mode of information broadcast that provides city dwellers with consumer-related publicity rather than civic-minded opportunities for sharing and community building.

For this reason, we set out to study digital public infrastructures that provide what we believe are more promising environments for interaction: Montreal's *Quartier des Spectacles* in 2013 and Melbourne's *Federation Square* in 2014. We conducted our first empirical study from September 4 to November 4, 2013, during the three-month deployment of MÉGAPHONE, a multimedia installation articulated around an architectural-scale media façade in downtown Montréal's "Promenade des artistes".

Hacking the City: Shareable Interactive Urban Installations to Craft Third Spaces

Our qualitative analyses and observations strongly suggest that urbanites were not only receptive to using this urban technology, but they also engaged in "hacking" MÉGAPHONE's large media façade when free play was possible. When we think of screen interfaces, we generally think about how they can give us digital presence in an online virtual public space [19], but

even without an online connection, MÉGAPHONE's giant screen interface offered end users a unique kind of digital presence by displaying their spoken words in big font types in a downtown plaza. Due to how imposing the installation was, when one or more end users would appropriate the system, everyone around the plaza would hear and see their intervention. By virtue of this, it became a shareable interface that people played with to create a new social space many kept coming back to.

Accordingly, our field observations of MÉGAPHONE suggests that when diverse publics appropriate such an urban technology, they often spontaneously engage in "Fifth Estate" digital practices onsite, transforming the system into a shareable public interface by crafting third spaces together and "hacking the city" [6][12].

The Interactive Mégaphone Installation

MÉGAPHONE is an interactive public art project that seeks to revive the historical concept of the "Speakers' Corner", a designated area in the city where all citizens can exercise free speech in an open forum. Since the advent of Web 2.0, there has been a proliferation of such spaces online, providing citizens with accessible channels of expression in which debate and discussion are facilitated through computational technology. Some display prototype systems have been designed and deployed in real urban settings to help communities create third spaces onsite, but generally, locative systems have been few and far between [6][15][18].

As a multifaceted installation, MÉGAPHONE is interactive in several ways: First, it amplifies the speaker's voice throughout the agora space and beyond. Second, it uses speech recognition software to analyze the spoken words, which are then filtered, separated and

individually displayed on the large media façades, with changes cycling through as data is processed with a 30-second delay. Third, it projects on the monumental media façade a gamut of emergent visual graphic designs and colors generated from variations in the amplitude of the speaker's voice. Fourth, it uses four output interfaces and urban furniture to digitally augment and to spatially define the agora space as an immersive, yet intimate setting. And finally, fifth, from many streets away, the large media façade provides urbanites with a giant interface displaying words that indexes the theme of live interventions and inscribes speakers' contribution as text on a digital public screen.

During our field study of MÉGAPHONE, we observed over a thousand people interacting with the system during 37 days, while over 4800 passive viewing participants watched within about eighty feet of the "Speakers' Corner" platform. We were surprised to bear witness to as many forms of appropriation and "hacking" as there were opportunities for free play with the system, which was made possible mostly during open mike sessions.

Hacking the Mégaphone to Be Together

Given that MÉGAPHONE was designed as a "Speakers' Corner", its function was to amplify what speakers say when they take the mike to voice their concerns to fellow citizens. While scheduled interventions generally had a set number of speakers programmed to appear with audience members showing up to listen to them during their whole talk, open mike sessions had people constantly walking in and out of the installation space while end users randomly stepped up to the mike to try out the installation. This led to much experimentation. For instance, there were many occasions when people deliberately spoke in a foreign language to see how the

voice recognition system would translate their spoken word into visual text. On different days, a local Asian woman spoke in an Asian language; a family of Argentinian tourists spoke in Spanish; a Brazilian woman talked in Portuguese; a woman sang in Spanish, followed by a man who sang in Gaelic; and several young men serenaded girls in Arabic dialects.

After each of the foreign language interventions, the speakers and the public would impatiently wait for the text to appear on the large media façade: everyone was curious to see how the voice recognition software would interpret the words. As one would expect, the words that appeared would be distorted versions of the spoken words. What was unexpected, however, is that those who watched would then use this feature of the system, that is, they would test the limits of the voice recognition software to up the ante by inventing their own "happy accident" in order to entertain the crowd. In other words, rather than producing a significant honey pot effect, gaming the system created an incentive for people to try to outdo one another.

Another common appropriation of MÉGAPHONE was its use as either a ghetto blaster or a music box. Groups of young students would periodically come to stick their phones on the mike as it broadcast their favorite tune into public space. Sometimes, dozens of them would sit around the "Speaker's Corner" platform or agora, like teens would in an unsupervised basement or a park. No recognizable words would appear on the large display.

One evening, however, five young girls passing by with their instruments stopped, unpacked them and played a single song composed and sung by the leader of the band. This time, words from the lyrics did appear on

the media façade. During another session, a woman sang “La Vie En Rose” *a capella* followed by a young man who played “At Last” with his smart phone over the mike while he sang karaoke-style. Everyone in the agora and passersby waited to see the words on the façade. One said: “It’s great because it’s big and loud”.

Others used it as a giant ETCH A SKETCH™. For instance, a young man took the mike and said: “Good evening, my name is David. Now how about we put some good words on the big screen? What good words do we want to see broadcast throughout the city? We want to see ‘peace’, we want to see ‘love’, we want to see ‘respect’...” and he continued with a long list of such “good words”. To make sure they were displayed in big font on the large media façade, he had to repeat them over and over again, in a litaneutical way. After a few minutes, his words appeared and everyone in the agora looked up and pointed at the words: some laughed, some applauded. Others came up to the microphone and added more words in that same spirit so that the intervention became a reverse exquisite corpse since no one really knew if their words would appear or not.

On the memorable evening of October 10, 2013, a French literature professor brought her graduate students to MÉGAPHONE for their Thursday evening class. She instructed them to each game the system in their own unique way in order to highlight the relationship between the spoken word and its translation into visual text in a spatial context. One student first read a text by an unknown local playwright and immediately after, followed suite with some verses by the famous French playwright, Jean Racine; he then suggested that whichever author had the most words displayed would win the contest. Another student read

a list of names of famous people from all walks of life throughout history and said that we would know their true political allegiance by seeing whether their name appeared either on the left or on the right of the display. A third student recited a poem very fast to see if the words would get muddled together when displayed. Although it was an intimate crowd made up of the students and another dozen passersby who had stopped to watch, the atmosphere was so warm and collegial that the hacking became contagious and everyone, including a homeless man, participated.

Conclusion

These field observations, as well as many others made during the three-month deployment of MÉGAPHONE, suggest that some urban technologies might have great potential to invite urbanites to craft third spaces in the city. Specifically, our findings show that people created situated shared experiences rather than content. Many who used the system came back regularly and developed relationships with other users, suggesting that these third spaces might be built through creative appropriation by an emergent public space Fifth Estate.

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