The Dual Skins of a Media Façade: Explicit and Implicit Interactions

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A B S T R A C T
In the fall of 2013, Mégaphone, an architectural-scale interactive “Speakers’ Corner,” was deployed outdoors after dusk in downtown Montréal, Canada. This urban art installation included a monumental media façade designed to display a transcription of some of the words uttered into the microphone by end users. Driven by the system’s two temporal modalities—a performative “live mode” and an archival “sleep mode”—the video projections revealed the dual skins of a media façade that spanned almost an entire city block. This article examines how activists appropriated Mégaphone to transform an ordinary building into an urban mausoleum.

New Forms of Public Interaction in Augmented Public Space
It has been suggested that the design and urban planning of the built environment have gradually supplanted film and photography as the medium predominantly used to represent the urban ethos since the turn of the 21st century [1]. Buildings, parks and streets, it is argued, have become the primary interfaces of the database city—a city that functions as an immersive platform in which one can assemble and consume informational content according to similar browsing and navigation experiences as in database-driven environments [2]. If indeed cityscapes and digital practices are increasingly becoming mutually constitutive of one another, could augmented public space engage urbanites beyond passive spectatorship and commodity consumption?

This has been the ongoing investigation of projects such as the Urban Screens initiative: since 2005, it has called upon artists to generate meaningful interactions by creatively appropriating existing infrastructures of digital displays in public space [3]. Although Rafael Lozano-Hemmer’s interactive installations long predate this movement, they often serve as prime examples of the emancipatory power of such explorations [4]. His augmented environments do indeed suggest that media architecture has the potential to support new forms of public interaction, which would make it possible to forge alternative public spheres in real urban settings [5]—as does too the Mégaphone project, an urban art installation that includes a monumental media façade designed to display a transcription of some of the words uttered into the microphone by end users. Driven by the system’s two distinct temporal modalities—a performative “live mode” and an archival “sleep mode”—Mégaphone’s video projections revealed the dual skins of a media façade that spanned almost an entire city block. Drawing on interviews and field observations, what follows examines how activists appropriated Mégaphone to transform an ordinary building into an urban mausoleum.

An Interactive Digital Soapbox
In Fall 2013, an architectural-scale digital installation was deployed outdoors during a period of 10 consecutive weeks in downtown Montréal, Canada. Co-produced by the National Film Board of Canada in collaboration with Montréal’s Quartier des Spectacles Partnership, Mégaphone’s...
interactive system was conceived by Étienne Paquette and designed by a creative team of 10 people led by Alexandre Lupien, all employed by the Montréal-based new media production studio Moment Factory, which had been selected as the finalist in this public art commission [6].

The artists that imagined Mégaphone largely drew their inspiration from the tradition of public speaking that emerged in 19th-century Australia and England, a practice that gave rise to the soapboxes that can still be found today in Sydney’s Domain or London’s Hyde Park [7]. Given the medium-specific properties of new media, however, Moment Factory’s 21st-century version of the “Speakers’ Corner” supported a higher level of complexity than would an analog public address system: it was made to be interactive and it afforded a wider range of expressive capabilities. Based on the original project proposal, the main objective was to create a digital platform that would enhance the dissemination of ideas in public space, but it was agreed that ideas should not be limited to concepts as floating abstractions, as the designers believed that they can take other forms: “By designing the platform for as many forms of expression as possible, we were trying to challenge the definition of what constitutes a political speech act” [8].

**Multiple Input/Output Interfaces to Simulate a More Synthetic and Immersive Experience**

To engineer Paquette’s concept into an architectural-scale interactive system, Lupien had to imagine a multisensory environment that would support more than just public speaking and listening [9]. Mégaphone was designed with a single input interface: a hand-held microphone that participants could use to deliver their public address while standing underneath a long red funnel-shaped megaphone in the “Speakers’ Corner” platform (Figure 1). At its most basic level, Mégaphone would simply amplify their spoken words throughout the plaza, while a speech recognition system analyzed and transcribed these utterances for graphic display. Accordingly, output content mainly appealed to two sensory modalities—sound and vision. To simulate a more synthetic, immersive experience, the designers decided to structure interactions around four sets of output interfaces that would enhance, blend and modulate sensory impressions: eight loudspeaker units; responsive stage lighting; a small media façade; and a large media façade [10].

Mégaphone’s fourth output interface was the most remarkable. Covering a total surface of 105 x 29 meters on the street-facing side of Université du Québec à Montréal’s President-Kennedy building, the monumental media façade was lit by eight Christie™ projectors covering four abutting sections—with two overlapping projectors for each section. This façade was far more versatile and responsive to the speaker than the smaller one. Although it was designed to visually represent the spoken word during live interventions at the “Speakers’ Corner,” many participants perceived it as an actual index of the performances. In fact, the key role of the monumental media façade was to reveal the system’s dual skin: live mode vs. sleep mode.
The Dual Skins of the Monumental Media Façade: Live Mode vs. Sleep Mode

As the sole portal into the system, the microphone captured the speech input that would trigger multimodal output. But Mégaphone was designed to function as much more than an electrically amplified “Speakers’ Corner.” Each speech utterance was recorded, analyzed and then stored into a database. This meant that the installation could accommodate two temporalities: a live mode and a sleep mode. The designers had decided to leverage the affordances of the computer database in tandem with the monumental media façade to display a visual index of past speeches when the “Speakers’ Corner” was not in use—that is, when the system was in sleep mode. The monumental media façade thus made the underbelly of Mégaphone’s architecture visible.

In live mode, it was responsive in several ways. First, its background color would vary from a palette of yellow to indigo hues in response to fine modulations in the pitch of a speaker’s voice. For instance, while women speakers often produced a yellow or green background, men’s voices...
typically cast a bright red, blue or magenta one (Figures 2, 3 and 4, respectively). Second, after a 30-second delay, words captured by the main speech recognition system and selected by the audio patch would start to appear in white font on the left-hand side of the building, gradually filling up the façade until it reached its right edge (Figure 3); words appeared non-sequentially to visually echo parts of speech and punctuate what a speaker was saying. Once the monumental façade was filled with an all-over composition of words displayed in different sizes (as seen in Figures 2 and 3), the display would persist for a few minutes before it was wiped clean for the next set of transcriptions to appear over a blank background. Third (as seen along the horizontal axis in the center of Figure 4), a white dynamic curlicue pattern would represent variations in the amplitude and rhythm of the speaker’s voice rendered in real time.

After more than 30 seconds of silence at the microphone, sleep mode would automatically kick in as the default mode, initiating a query of the database that kept an archive of all the words that had been analyzed by the main speech recognition system. The monumental façade would then display the words that had been recently spoken most often in a grid-like pattern of red, white and black rectangular boxes (Figure 6). The size and color of each box was proportional to how often a word was used, with, for instance, bigger boxes containing the words that had been uttered most often. When sleep mode would extend for more than five minutes, the façade would switch to displaying the words that had recurred most often over the whole period of the deployment. Consequently, in a five-minute cycle, the system would update to select and display the words that were “most recently spoken” in alternation with the words that were “most frequently spoken” over and over until live mode was triggered again by new speech input.

Over the 10 weeks of the deployment, each word successfully transcribed by the system was compiled into Mégaphone’s database for display on the monumental media façade. A date/time stamp would be applied to each recorded word, with recurrences simply being tallied with the equation “n+1.” At rest in sleep mode, Mégaphone became a giant digital palimpsest that archived the most popular concerns voiced by citizens that night (first display to cycle in sleep mode) and since the first day of the deployment (second display to cycle in sleep mode). Four weeks into the deployment, three activists would creatively appropriate these affordances to articulate their urban intervention.

**Going Live, Going Public: Leveraging the Social Affordances of Mégaphone**

At nine-thirty in the evening, Wednesday, 2 October 2013, Serge Lavoie, Rudi Ochietti and Didier Berry stepped up to Mégaphone’s “Speakers’ Corner” platform to conduct a joint public action. What brought them together that night were two distinct incidents of discriminatory
misconduct by police officers that had almost cost them their lives in 2012 [11]. Like many others who have experienced police abuses of power in Montréal, the men had been actively involved in fighting against impunity in cases of police brutality by participating in online activism and using social networking sites to regularly organize fundraising events, vigils and street protests. Mégaphone, however, provided them with a new means to engage in digital activism with technology that supported onsite embodied interaction—offline, without Internet.

During a public intervention that lasted over 20 minutes, the three activists (Figure 7) took turns reading a short manifesto followed by a list of the names of the seventy young men who had died as a result of police brutality in the city of Montréal between 1987 and 2013. As the speech recognition software processed their voice input with a 30-second delay, observers and passersby could see some of these names appear across Mégaphone’s monumental media façade (Figures 2 and 3). Given that the speech recognition system linked to that digital display could only transcribe a speaker’s utterances at a 75% efficiency rate, some names were either misspelled or not published at all. Further, when the system processed the words for display, it would separate them individually and scatter them randomly on the giant façade. This meant that a victim’s surname might appear far away from their given name. The result was that transcriptions were not true to the spoken word; they were unreliable and visually unpredictable.

Interviews revealed that each stakeholder had radically different feelings about this flaw in the system. The producers perceived it as a technical failure. The designers welcomed it as an intuitive way to moderate content by breaking speech up into word-units to semantically disassociate them from one another, thus reducing the chance of inflammatory language appearing [12]. Activists saw this as a fortuitous outcome that was part of the happenstance of performance art:

I didn’t mind the informal quality of the graphics and the fact that the speech recognition system was not particularly accurate because I saw our intervention as a spiritual and artistic gesture. We showed up after dark that evening and there we were “splashing” these words and these names on a huge media façade in the middle of the city. I felt that the abstract character of the transcription was thought-provoking…. It even made me wonder, what do these words and names mean? Because we were uttering these names to bring them back into memory but they were being misinterpreted or dispersed by the Mégaphone just as they had been mistreated, dismissed and forgotten by society and the news … so it was as if we were trying to remember these forgotten souls [13].

These divergent perspectives suggest three things. First, that one stakeholder’s design problem is another’s affordance. Second, because issues around the surveillance, moderation and control of content is contingent on each stakeholder’s agenda, their problematization may be far more nuanced than is often assumed in discussions that weigh in on behalf of end users without consulting them. Third, it is often taken for granted that free speech has the clarity of political oratory, but as Paquette had anticipated, with new media it can take many forms of expression.
Further, contrary to most contemporary media technologies, Mégaphone allowed end users to engage in playful self-representation that supported embodied publicness, while adding a new dimension to oratory, as its monumental display supported live and archival self-publication of graphic text in public space. Although this function of displays has long been the prerogative of advertisers, corporations and public institutions, the activists found it easy to use it for public self-representation and mediated self-publication in an unprecedented way that suited their own needs. If a technology such as Mégaphone affords publicness, how does it relate to privacy?

Wesch argues that Web 2.0 links people through the sharing of user-generated content on platforms that enable anonymity, a sense of physical distance and ephemeral dialogue, which ostensibly give people the “freedom to experience humanity without fear or anxiety” [14]. It is noteworthy that the activists appropriated Mégaphone for the opposite reason; their intervention was about confronting their fears and going public, in spite of the risks that this represented [15]. Indeed, the platform appealed to them because it allowed them to communicate without the anonymity, the sense of physical distance or the ephemerality that, according to Wesch, protects our “freedom to experience humanity.” These are the social affordances that differentiate offline, live interaction from online interaction: privacy has minimal, if any, relevance to Mégaphone.

A Sleeping Skin Beneath a Live Skin: Explicit and Implicit Interactions

Two months prior to their intervention, the three activists found out about the Mégaphone and started to make plans to conduct an eulogy that would transform the public plaza into a memorial space. Yet, before the actual ceremony, they were not aware that the monumental media façade had a sleeping skin beneath its live skin [16]. It was only on location that they realized that the Mégaphone had temporal affordances that could transform the architectural-scale media façade into a commemorative monument in two substantially different ways. First, as shown, the names of the deceased would temporarily appear in real time on the monumental media façade until they were wiped clean a few minutes after the last speaker hung up the microphone. Second, and unbeknownst to them, these names would become permanently inscribed into the system’s archival database, which had been designed to keep a record of all of the words transcribed by the speech recognition software throughout the full 10 weeks of the Mégaphone deployment.

In live mode, the use of the façade explicitly laid claim to both a physical space (the material appropriation of a giant screen in a public plaza) and a symbolic space (evoked by the meaning of the words represented on this screen). In sleep mode, however, the outcome was uncertain: whether the names appeared or not was determined by how accurately the main speech recognition software processed them in conjunction with how often they were repeated. Every time an uttered name was correctly transcribed, it would be effectively recorded in the database and would thus have a chance of being published. Figure 4 shows the display in live mode when the word “oui” was repeated over and over again. While in live mode, recurrence could make a transcribed word appear in bigger font size or several times on the façade, in sleep mode a word could only appear once, in a font size that reflected how often it was registered in the database.

Thus, if a name was not repeated during the 10-week deployment, it might never again appear on the façade. It would, nevertheless, remain forever inscribed in the database. While the use of the façade in live mode afforded explicit interaction, that is, a form of expression that manifests presence and leaves little implied, the database-driven sleep mode favored implicit interaction, a form of expression that suggests absence and incites one to imagine that other names may exist even though they are not displayed. In sleep mode, the database itself becomes a symbolic space, a digital mausoleum in which the deceased can invisibly rest in peace. But whenever some of their names appear on the sleeping skin of the façade, as Manovich argued, new media design
has the power to reverse the traditional relationship between syntagm as explicit and paradigm as implicit [17]. In sleep mode, Mégaphone’s monumental media façade foregrounds paradigm (the database) in the production of meaning, while syntagm (the spoken word) is merely evoked.

Made possible by the database, this aspect of the dual skins of the façade—the physical vs. the symbolic, and the explicit vs. the implicit—may allow for more complex forms of interaction in public space. For instance, once the three men understood that in sleep mode, the system’s archival database was programmed to display the “most frequently spoken” words transcribed by the speech recognition software throughout the fall of 2013, they told other activists, who later came back to conduct their own ceremony in order to keep the victims’ names in high priority in the system’s database until the very last day of the deployment. Here, the database-driven sleep mode became the occasion for small cells of activists—in effect, a network—to engage in archival politics in public space. Using the temporal modalities of the façade, they transformed Mégaphone into a public memorial space that honored the names of the victims explicitly and implicitly, physically and symbolically, over many weeks, forever inscribing the names in the database. As one activist remarked, once the name of a deceased appeared in sleep mode, it literally became a published record, while other names inscribed in the database that were never displayed on the monumental façade, were preserved as a public record. How access to this public archive is negotiated is not only a matter of power differentials, it is also one of design.

The Politics of Augmented Spaces: Can Design Support Free Speech and Archival Politics?
When asked how the design of Mégaphone could have better supported their cause, the activists explained that their intervention would likely have had a more substantive reach if the names had instead been video projected on the police headquarters building three blocks away [18]. And indeed, five months after this interview, the Illuminator Art Collective used the façade of that headquarters to guerilla-video project one silhouette image of someone carrying a sign that read “police everywhere, justice nowhere,” and another of a menacing cop, captioned, “I just obey orders” [19]. Like the Mégaphone intervention, the Illuminator’s tactical event, however, went beyond the ephemeral live projections. By visually documenting their interventions and circulating them on social media, the Illuminator also engaged in archival politics in public space. The sleeping skin of their façade, which still exists online rather than onsite, reaches other audiences [20]. This, in turn, highlights the key role that design can play in the politics of augmented public space.

For instance, because private corporations and public institutions are more likely to have access to the resources needed to build and deploy installations such as Mégaphone, large-scale interactive public displays tend to be used for advertising purposes or as a currency to build cultural capital in art tourism. Artists of international renown such as Shimon Attie, Rafael Lozano-Hemmer and Kryzystof Wodiczko have, for decades now, used the façades of buildings to project public artworks around themes that highlight memory, identity, displacement and power [21]. Is their work, however, being co-opted in gentrifying venues as a result of their celebrity status? And if so, does this affect its authenticity, meaning, impact, and its claims of supporting free speech?

The 2014 edition of the Montréal Biennale is a case in point. Wodiczko’s Homeless Projection was deployed across the street from where the three activists conducted their intervention at Mégaphone, exactly a year later. His work professes to “give voice” to the homeless by showing projected video clips of them telling their stories on the monumental façade of the city’s most important theatrical venue [22]. These testimonies, however, were curated: they had been preselected before their presentation. The voices of the “marginalized citizens” were thus mediated by a third party that must ultimately answer to producers. It is noteworthy that during
the deployment of Mégaphone, homeless people regularly came to speak publicly about their experiences, but they did so on a live platform, speaking directly to the audience without any form of moderation. These represent two substantially different ways of practicing free speech and archival politics in the public realm. In the wake of smart cities, this begs a timely question: will technology design provide platforms that are open-access and help level the playing field in augmented urban spaces?

Acknowledgements
The authors thank the Social Sciences and Humanities Research Council of Canada (SSHRC) for funding this research with award no. 767-2011-1754.

References and Notes
5. Most of the works in Rafael Lozano-Hemmer’s Relational Architecture series propose new forms of interaction that challenge traditional conceptions of the public sphere, but some — such as Body Movies (2001) and Voz Alta (2008) — also raise interesting issues around archival politics germane to the case study presented in this article, <www.lozano-hemmer.com/index.php>.
7. Étienne Paquette, interview conducted by Claude Fortin on 26 August 2014, ~26min.
8. Étienne Paquette, interview conducted by Claude Fortin on 26 August 2014, ~60min.
9. Alexandre Lupien, interview conducted by Claude Fortin on 4 September 2014, ~38min.
12. Alexandre Lupien, interview conducted by Claude Fortin on 31 July 2014, ~16min.
13. Didier Berry, interview conducted by Claude Fortin on 20 January 2014, ~9min.
15. Serge Lavoie, interview conducted by Claude Fortin on 20 January 2014, ~32min.
16. Serge Lavoie, interview conducted by Claude Fortin on 20 January 2014, ~29min.
18. Serge Lavoie, interview conducted by Claude Fortin on 20 January 2014, ~3min.

20. McSorley [19], para. 2; para. 19.
