

Mobile Publics

methods for making virtual spaces public

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There has been much debate amongst critical theorists over the years regarding the possibility of a so-called public sphere in democratic capitalist societies—a space allowing citizens to insert themselves into narratives of public culture and civic responsibility as agents of community and nation building. The public sphere is often imagined as a collection of private individuals seeking a common good, where industry is deliberately excluded. Where Jurgen Habermas famously argued that the (nineteenth-century) public sphere had been destroyed by consumer culture, facilitating a rise of media and state intervention in the ‘private,’¹ recent critiques have contended that globalized industries have elided state sovereignty and prohibited public formations. A coherent public sphere is a nonsensical concept in many ways, assuming preconstituted, homogenous, and coherent populations separate and juxtaposed to both the state and an (allegedly) distinct private sphere. Many critical theorists have not, however, given up the fight to designate some space of action for individuals who are socially, economically, and politically marginalized by globalization practices and policies. A reimagination of this sphere must, then, take into account the various impacts of transnational flow on the communication possibilities for ‘publics’ of varying scales: local, national, diasporic, transnational, etc.

This paper considers how a radicalized public space might be facilitated via mobile technologies and experiences and the methods by which they are designed. Ernesto LaClau and Chantal Mouffe, for example, imagine ‘agonistic’ democracies that require agitation and debate and create channels that facilitate different values; such processes demand the ‘democratization of democracy,’² holding true to values routinely espoused but violated by states.³ There are resonances of this rigorous democratic practice as well in Nancy Fraser’s call for justice that crosses national boundaries, as it must in this age of transnational flow. In the resulting global public sphere, states, industries, and international structures are all held accountable for injustices. To this end, Fraser argues we must insist that states address the ‘how’ by which structural and institutional frameworks of societies set ground rules that govern social interaction.⁴ I want to think about how different kinds of publics (i.e. diverse citizens, academics, industry workers, etc.) in a variety of scaled public geographies (global, local, national, and other) can take part in such practices to democratize and hold the state accountable for broadly framed notions of justice. I

facing page

1 PORTAGE Visualization
for John St., Toronto



want to think as well about everyday practices of communication that become colonized by industrial and cultural trends of 'framesetting,'⁵ such as those pervading the Internet, and consider how greater democratic processes might be achieved via social interactions made possible via mobile technologies.⁶

This paper begins to analyze how we can engage with new communication technologies at the levels of design, production, and use, from a stance committed to agonistic democratic processes that open up channels for debate and ultimately 'reframe' our value systems, making them accountable to radical democratic roots. What roles do technology, game/experience designers, and users of mobile media play in reframing these processes and places of communication that are, after all, essential to pluralistic democracy? Might it be possible that the spatial dimensions of mobile technologies, and for that matter the intersections of space with time therein, differ from the Internet experience, precisely and most obviously because the mobile subject can move through material space utilizing technologies that themselves move through a variety of space and time dimensions? Where the Internet allows users to negotiate virtual space, mobile technologies facilitate user interventions in both spheres, at will and even simultaneously, as we negotiate diverse and fluid temporal and spatial dimensions of experience. Might we, then, analyze mobile technologies—both the spaces of content and architecture and the mobile spaces in which they operate—as places for public culture to represent, identify, present, agitate, create, craft movements, and, as well, demand new structures and forums for justice?

The highly unique spaces of mobile technologies, made possible by the Hertzian/virtual/material environs they traverse, uniquely position users as unfolding and changing producer-consumers. Where a differentiated and evolving subjectivity is *possible* on the Internet, mobile spaces engage subjects in an ongoing negotiation of and play with the false dichotomies of public/private; inside/outside; narrowcast/broadcast; active/passive; linear/non-linear; self/other; material/virtual; analog/digital; art/design; empiricism/creation; etc. Because mobile technologies and their users negotiate multiple spaces simultaneously, they allow for play that interrogates these dualistic schisms and discomforts in distinctive ways. Lev Manovich, for example, imagines mobile media as enabling a 'poetics of augmented space';⁷ the mobile subject moves in the lived experience and aesthetics of augmented space—'physical space plus layers of (mobile) data'—where unique subjectivity and art can be created. This subject is simultaneously material and postmodern, fluidly crossing boundaries, engaging interactively and alone—a subject in progress negotiating experiences that are temporally and spatially varied.⁸ This hybrid, incoherent subjectivity seeks engagement over progress, experience over end, favours no actor over another, and, to that end, is entirely in keeping with subjects of agonistic democracy in encouraging diverse interactions.⁹ The hybrid, porous spaces of mobile technologies, then, might facilitate a messy kind of radical democracy or some semblance of a postmodern public sphere.¹⁰

These augmented spaces offer opportunities to designers of mobile games and experiences, as well as hardware and software designers, to consider user experiences that feed agonistic public practices. As an academic and media producer participating in mobile experience design, I wish to think through the possibilities of working on experience and software design from this standpoint.¹¹ Two mobile design projects I have worked on have yielded both intentional and unintentional methodologies and practices that have potential utility for putting the 'democratic process back in democracy.' Each project has been structured to encourage intensive collaborative among a diverse team of designers, engineers, and users,¹² and has relied on methods of critical ethnography and what can be termed 'rapid iterative prototyping.' In our recent project, entitled PORTAGE: The Canadian Mobile Experience,¹³ we are employing these methods in partnership with small- and medium-sized industries to create, collectively, a virtual mobile theatre in downtown Toronto .

Our methodology is driven by reflexive brainstorming practices that call for the ongoing renegotiation of our methods and goals until we reach consensus. One of our team's few rules is to continually imagine the intended user experience, while prioritizing possibilities for social interaction and authoring. This process, which was for us surprisingly functional and efficient, contests neo-liberal mandates of cultural practice; it continually destabilizes any position of authority or privileged knowledge, and arrests the formation of epistemological monopolies or their fruition in design strategies. In embedding self-reflexivity, the model rejects any notion that (democratic) social interactions can be universally facilitated—instead mobile designs should speak specifically to both the time and space in which the interactions occur.

Like most experimentation, our design teams discovered serendipitous, often accidental, innovative processes. The Alter Audio team (of the Mobile Digital Commons Network, or MDCN), for example, aimed to exploit the aural bias of the mobile phone to create unique collaborative experiences. Our design foregrounded user choice, allowing 'players' to decide whether to combine musical sounds with another, and making it possible for users to sample or upload and trade sounds in musical collaboration. The privileging of the user also grounded our commitment to an iterative design strategy that called for the analysis, design, construction, and implementation of *complete* experiences, and a cycling through this process until the experience was satisfying.¹⁴ Through these practices, we discovered the benefits of forging rapid prototyping to iterative design. This melding reified the value of working within limits in order to push them and thus re-imagine and alter the frame.

The best example of this process comes from charettes held by Alter Audio, whereby three Ontario College of Art & Design (OCAD) undergraduate students were challenged to create, in two short days, innovative audio experiences within highly restrictive iterations designed for a mobile phone.¹⁵ The students were given minimal guidance regarding the two iterations available to them, and little information about the goals of Alter Audio or MDCN. Their specific challenge was, over the course of three



2 Alter Audio charette
Students were challenged to create innovative audio experiences



3 Proximity
Sounds are controlled by the user. Via Bluetooth, sounds are also triggered by the proximity of other users.

days, to employ one of the two design architectures, using Bluetooth or GPS, to trigger sounds (housed in the phones), and to create and deliver a unique audio experience for two to four individuals.¹⁶ The students rallied against these limitations, imagined more complex iterations, and finally began brainstorming and designing experiences. Each student proclaimed different design aims, respectively: to enhance the environment (with locative-signified symphonies), to build community, and to evolve content that could be employed in future, more complex, iterations. Interestingly, each student's design suggested that mobile experiences are distinctive in involving the movement of bodies through augmented spaces; as such their designs encouraged, and sometimes intentionally solicited, new social interactions.

One student created an experience named *Vocal Chords*, employing the human voice as his medium, and taking advantage of iteration two's inability to sync sounds; he recorded a male and female voice singing notes in the key of C that combined interminably, and thus created strange and unexpected chords that were triggered by Bluetooth proximity to another user. Another student, also exploiting this design limitation, composed *Jam*, an audio choreography combining diverse sounds including five-second loops of long, sustained tones, nature (birds), and syncopated percussion in a triplet rhythm; due to their disparate textures and tempos, the sounds combined equally well, despite the asynchronic bias.

Neither student designer would have created these content or experiences if not pressed by the rapid iterative design method. These results were significant in that each student imagined the iteration's constrained frameworks as opportunities for massaging, pressing, and reimagining the frame. This manner of conscious engagement with technologies and their limits demonstrates the best of agonistic practices that work to maintain structures even while they disband the (dominant) logics associated with them. These acts of internal resistance were made possible by the paradigm of our design strategy, including the (intentional) minimal context team leaders provided to designers to qualify the frames/iterations, our insistence that experiences be delivered in short time, and an overarching iterative methodology that prioritized user choice and experimentation. The resulting designs disrupted the false dichotomy of open and closed systems that assumes open systems alone allow for the reinvention of rules and feed innovation.¹⁷ Here, a hybrid of open and closed processes created unforeseen designs and user experiences.

Our focus on user desire is also privileged through testing completed iterations on a range of users. We employ critical ethnographic methods that seek to 'purge' users of information regarding the mobile experience in an open-ended interview or focus group format. These methods allow users to experience various mobile experiences in the field, while our team observes, and carefully avoid suggesting to users the goals or intent of the experience to be tested. In addition, we collect information that contextualizes the users' responses to the experiences; these include users' media consumption and purchasing habits, functional and social habits

of mobile and digital technology use, and favoured communication strategies, as well as cultural practices and backgrounds.¹⁸ After researchers contextualize user comments in relation to this data, users are asked to respond to 'findings' to ensure they accurately reflect their readings of the experience. Vetted findings are then cycled back into the next design iteration. This type of critical ethnographic methodology shares assumptions with agonistic democracy in challenging narrow, often cloistered practices of research and design, overthrowing the expert/user dichotomy, and ensuring—indeed seeking—an array of voices that might otherwise be marginalized or ignored in the design process.

Because access to technology is a challenge for both mobile users and our team, this problematic also plays a key role in our design strategies. Access to mobile technologies and network services in North America is routinely constricted due to a few companies monopolizing the industry. In turn, this phenomenon tends to embed neo-liberal imperatives (i.e. of commercialization, consumption, and limited democracy) in design structures and experiences. For example, mobile industries tend to design for the 'masses,' with such experiences as competitive games with commodity rewards, copying pre-existing games that possess mass-market appeal (e.g. *Tetris* or *Monopoly*), or employing the forum as the next digital 'suburbia,' to circulate (or even spam) consumers with commercial promotions. But rarely do mobile designs prioritize social interaction, as is the tendency of artists and independent designers who work on mobile platforms.

Because it is designed to bridge the digital divide in a public, urban setting, PORTAGE in particular has been forced to contend with the limited features enabled on consumer-grade mobile phones.¹⁹ Designers on similar projects, who seek to create broad access to mobile experiences with ease of use and low cost, and who refrain from hacking systems, are thus forced to dialogue with cellphone companies for access or to brainstorm new forms of connectivity.²⁰ The PORTAGE project, for example, is producing a paper critiquing the impact of industry monopolies upon mobile design research, and is dialoguing with service providers to discuss the resulting injury to both users and innovation, even as we experiment with alternatives to connecting via cell networks.

Importantly, however, PORTAGE has also discovered unexpected common ground with the innovators of small industry. When PORTAGE has placed issues of access, diversity of content, social interaction, and the public sphere on the table for discussion with industry partners,²⁰ we have moved together toward a mobile commons, rather than toward neo-industrial motifs or ideals. One of PORTAGE's most radical methods, in fact, has been the intensive collaboration among our team's small industry representatives, artists, designers, engineers, social scientists, and academics. As well, the team has, as a whole, committed to creating opportunities for users owning no mobile devices; such users will be able to engage instead through analog experiences that trigger a digital response or effect and thus allows social or technologically convergent interactivity for all passersby.²¹



4 **Methaphors and Data Caches**
The environment affects on the musical composition thought collaborative or choreographic options and data caches.

The negotiations with industry leaders have been fruitful and surprising—we have together vetted our assumptions, interests in outcomes, and are melding a hybrid PORTAGE sensibility. To our surprise, we have realized the following *common* concerns: bridging the digital divide via mobile and hybrid technologies, creating aesthetic experiences that are grounded in theoretical questioning of linear history-making and public surveillance practices, allowing designers to lead design, and prioritizing social interaction and user choice. Perhaps this collision is due to the historic phenomena whereby small- and medium-sized industries (in North America) have acted as media and cultural content innovators, rather than bending for the lowest common denominator consumer (as does big business). As well, smaller scale design demands greater democracy to preserve a productive work community. And yet the industry partners' interest in bringing art, social interaction, Canadian heritage, and political and social issues to mobile experiences, rather than selling their existing cultural content products is remarkable, and their enthusiasm is palpable. This collaborative realization is a step toward design models that built hybrid, activated publics.

Conclusion

Rapid, iterative prototyping can work to establish designs for interaction consistent with agonistic space and those required in a global digital commons. Fraser, LaClau, and Mouffe call not for the dissolution of existing structures but the need to re-evaluate structural frames to allow for resistive, alternative, and agonistic participation. Our integration of student designers and users serves as a case studies in democratized design practice, in allowing users with no particular (professional) qualifications to determine the level of social engagement they desire in the very *paradigm* of the experience, and in ensuring that user experience remains the focal point of experience design. In PORTAGE, Alter Audio, and other projects, a decentralized, hybrid design team employing self-reflexive methods has yielded projects that in many ways reflect a postmodern, post-global ideological bias. We have produced cultural content, experiences, and ideas that, like Jean Baudrillard's 'simulations,' don't reflect any existing experience or seek to mimic existing games, but have emerged from a hybrid model, that is both open and closed, self-reflexive, and rigorously public.²²

Mobile spaces, as such, offer possibilities for an ongoing negotiation of subjectivity in terms of time, space, and aesthetic, a reinterpretation of the nature of social interaction in the global technology age, and the forging of new relationships evolving self, society and technology. Distinctively, mobile users cross borders of space and time as they physically and virtually traverse augmented spaces that are, as such, hybrid and political. Perhaps, then, mobile spaces and experiments are primed for a variety of publics to query the possibility of a global digital commons.

Notes

- ¹ Jurgen Habermas, *The Structural Transformation of the Public Sphere*, trans. Thomas Burger, (Cambridge: MIT Press, 1989).
- ² Ernesto LaClau and Chantal Mouffe. 'Post-Marxism without Apologies,' *New Left Review* 1/166 (Nov-Dec 1987); Dave Castle, 'Hearts, Minds and Radical Democracy: An Interview with Ernesto LaClau and Chantal Mouffe,' *Redpepper*, <http://redpepper.org.uk>.
- ³ Unfortunately, the space available precludes a deeper analysis of the complex theoretical debates regarding the meaning of 'space.'
- ⁴ Nancy Fraser, 'Reframing Justice in a Globalizing World,' *New Left Review* 36 no. 6 (Nov-Dec 2005); Nancy Fraser 'Transnationalizing the Public Sphere,' *RePublic Art*, http://www.republicart.net/disc/publicum/fraser01_en.htm.
- ⁵ Fraser, 'Reframing Justice,' 2-3, 10. This is Fraser's term to describe the 'Keynesian-Westphalian' dominant framework by which western states create structures of justice; it refers to the 'national-territorial underpinnings of justice dispute' occurring during the postwar democratic welfare state period of 1945 to 1970. The system 'mapped the world as a system of mutually recognizing sovereign territorial states.'
- ⁶ Mark Poster, for example, argues that the Internet 'is above all a decentralized communication system,' although he rejects determinist suggestions that it institutes radical decentralization or can decentralize social interactions. Conversely Greg Elmer has argued that the architecture of the Internet, because it is largely governed by industry monopolies that control search engines, requires consumers to allow companies to survey their Internet travels. In turn, companies repackage this data in topographical maps of consumers that result in a variety of marketing campaigns. Consumers and information seekers, then, become profiled by industry (and certainly, governments who have access to such data) and become participants in their own subjection/profiling. See Mark Poster, 'Cyberdemocracy: Internet and the Public Sphere,' originally published 1995, archived at <http://www.humanities.uci.edu/mposter/writings/democ.html>; Greg Elmer, *Profiling Machines: Mapping the Personal Information Economy* (Cambridge: MIT Press, 2004).
- ⁷ Because electronically augmented spaces personalize information for users dynamically change over time, and are delivered interactively, they bring up design issues that are not only technological, but conceptual. In other words, the problem of 'overlaying dynamic and contextual data in a physical space is a particular case of a general aesthetic paradigm: how to combine different spaces together.' The architecture of augmented space is layered with context, offering both challenge and opportunity at the technological and conceptual levels. Lev Manovich, 'The Poetics of Augmented Space' in eds. Anna Everett and John T. Caldwell, *New Media: Theories and Practices of Digitextuality* (New York: Routledge, 2003), 75–92.
- ⁸ Like Nina Wakeford's real-time video of a bike messenger (presented at Mobile Nation, with a related paper included in this volume), she never gets where she is going. Getting there is not the point.
- ⁹ As Drew Hemment's Location Oriented Critical Arts (LOCA) project demonstrates, mobile technologies are an excellent venue for interrogating the surveillance culture in which we are embedded. The project can be viewed at <http://leoalmanac.org/gallery/locative/loca/index.htm>.

¹⁰ Rob Shields, in his presentation and paper for Mobile Nation (also included in this volume), argues that the phone both links and binds, representing a 'coming into relationship with' (via photography). More, there is something 'unique' about the time and space elements of the mobile experience that operates differently from the Internet, the performance of mobile photography, for example, representing a 'virtual and present' melding.

¹¹ Designers also carry the extra currency of influencing engineers—in our case, designers work in close collaboration with engineers who have in turn pushed software and will likely create future mobile hardware development.

¹² Our diverse team consisted of a range of academics, artists, software designers, engineers, student artists, designers, and random (unconnected) users. Brainstorms that were rigorously open resulted in consensus, and the ultimate project design could be claimed by no single team member. I have worked as a researcher on MDCN, funded by the Canadian Culture On-Line Program of Canadian Heritage, and as a co-principal investigator, currently, on PORTAGE: The Canadian Mobile Experience, funded by the New Media Research and Development Initiative of Canadian Heritage.

¹³ The co-leads for this project, funded by the New Media Research and Development fund of Canadian Heritage, are myself and Geoffrey Shea. The project can be followed at <http://www.ocad.ca/portage>. As one walks down John Street, the heart of Toronto's art and entertainment district, viewers will be able to interact with a variety of art and entertainment content (industry and artist-created) to deposit, upload, (audio/music jams, video, etc.), to create virtual graffiti, or conduct counter-surveillance of one's self on a mobile device.

¹⁴ This method is, of course, in contrast to segmented design processes that allow for the production of coherent (perhaps artistic and beautiful) elements that might seem to enhance an experience, but in fact often work better in isolation because they were designed that way.

¹⁵ Many projects within the MDCN utilized these experimental design techniques. The term 'charette' comes from nineteenth-century practices in France at the École des Beaux Arts, where architecture students were challenged to solve design problems in a distinct time period. As such, students rushed their drawings to the school from their studios in donkey carts or 'charettes,' and hence the term.

¹⁶ These iterations and the charette methods are further outlined in Paula Gardner and Geoffrey Shea, 'Alter Audio: Mobile and Locative Sound Experiences,' Mobile Digital Commons Network website, <http://www.mdcn.ocad.ca/alteraudio>. Iteration two supplied four audio tracks that turn on and off in different combinations and loop with no particular synchronization when users move in and out of Bluetooth range. Bluetooth range during our testing was somewhere between three to ten metres depending on the electronic 'noisiness' of the environment, the number of phones involved, physical structures like walls, etc. By design, a single user could not effect a particular combination of sounds by themselves. Iteration three involved the same constraints, but sounds were triggered by GPS nodes.

¹⁷ Kim Sawchuck, in her paper at Mobile Nation, published in this volume, warned of assuming that open systems are necessarily juxtaposed to closed systems.

¹⁸ These methods are in the same vein as those used by cultural anthropologists Sherry Turkle and Joseph Dumit. See Sherry Turkle, *The Second Self: The Human Spirit in the Computer Culture* (New York: Simon and Schuster, 1984); and Joseph Dumit, *Picturing Personhood: Brainscans and Biomedical Identity* (Princeton: Princeton University Press, 2003)

¹⁹ Cellphone features such as Bluetooth are disabled by network carriers in North America, who then sell users access to these services. In the US, a few large cellphone companies—Verizon and AT&T—won't allow features on their phones if their networks can't control them. As blogger Jan Frel comments, this constrains the 'mobile economy.' In addition, and causing equal damage, it constrains the formation of a global public sphere. Frel also notes that the Federal Communications Commission is about to auction off spectrum, creating the opportunity for a wireless broadband wholesaler to buy up and rent their network to a company that links cellphone and broadband; this could ultimately allow cellphone access computers that yield broadband to users. Jan Frel, 'Why You Can't Get Your iPhone.' *AlterNet*, posted April 13, 2007, <http://www.alternet.org/bloggers/frel/50561/>

²⁰ Our industry partners include ecentricarts, Bravo!Fact, Collideascope Digital Productions, Triptych Media, and DECODE Entertainment, who produce, respectively, interface design, mobile film, integrated TV and new media, film and television animation, and family animation. In addition, our presentation partners are the Design Exchange, a design research and exhibition centre, and InterAccess, an art/technology art centre.

²¹ These might, for example, be hybrid analog-digital devices that individuals can kick or hit (e.g. a musical instrument) to create digital effects, while others play with mobile devices.

²² Jean Baudrillard, 'Simulacra and Simulations,' from *Jean Baudrillard, Selected Writings*, ed. Mark Poster (Stanford: Stanford University Press, 1988), 166–184.