Civic Media Platforms and Participatory Urbanism: A Critical Reflection

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Abstract

In this paper, we explicate our research on technology-mediated urban experience specific to two hyper-local tests in which the space of the ‘public’ is transformed into a virtual network by connective broadcasting. The first case study presents collective mapping in Rio de Janeiro toward increased civic engagement and sustainability, the second tests documentation of political demonstrations for strategic and archival purposes for Occupy Boston. Grouped under the term “participatory urbanism,” the projects intend to explore how an individual activates interstitial space (between the physical city and hovering networks, between public and private) by engaging technology and civic media to affect change in the built environment. The physical and virtual environments serve as reciprocal sources of information, engendering a collective practice of shared encounters. We investigate how such encounters of user-centered activity through mobile and web-based media support or implicate the perception and manipulation of the built environment over spans of time and locations, and will highlight qualitative elements of a mobile and web platform designed for successful civic engagement and participatory urbanism.

Keywords: mobile technology, participatory, civic action, public policy, occupy boston, rio de janeiro, mapping, sustainability, access, democracy, storytelling, intervention, memory, documentation, timeline, geo-tag, location-based
I. INTRODUCTION

This paper is a critical reflection on participatory urbanism mediated by digital technologies; it discusses the role of civic media in changing the urban environment.

Civic Media are participatory platforms in which the citizen becomes an active agent in creating change through strengthened social bonds and civic engagement. Civic media differs from citizen journalism by embracing emerging practices, yet requiring further engagement and reciprocity [1]. Shared media production and consumption practices foster social connections, spark public participation, and improve the sense of community at various scales; civic media supports social sustainability through citizens’ democratic participation and improves connections among communities while promoting their mutual recognition. Urban(ism) becomes participatory when it is understood as flexible, temporal, and in a state of evolution: “The equation with ‘the community’ has to be invented by all participants individually and collectively” [2].

In this paper we investigate how civic media platforms, mediated by mobile and web-based technologies, create new methods and possibilities for individual citizens to become proactive in their involvement with their city, neighborhood, and urban self reflexivity. Ultimately, we intend to address how civic media platforms can support participatory urbanism practices and to discuss its main criticalities and opportunities.

The discussion is supported by the presentation of two case studies: Occupy Boston and UNICEF-Youth Mapping. In both projects, the Open Locast platform—developed by the MIT Mobile Experience Lab—is used as the technological platform. Open Locast is designed to enable rapid prototyping and quick deployment of location-based media platforms. It is an open-source project composed of two primary components, a Web application and a Mobile application, which act in unison, and can be tailored to various purposes and experiences. The platform has been adapted for previous projects, including a hyper-local citizen reporting project based in Porto Alegre, Brazil. In this project, citizens collected video and image casts of issues in the built environment, including time-critical reports, hyper-local narratives, citizen ethnographies, social fabric explorations, and civically-engaged practices. The Occupy Boston and the UNICEF-Youth Mapping projects used the same structural framework and platform.

The Locast Occupied project addressed the lack of cohesion in documentation and social media surrounding the Occupy movement, most specifically in Boston, but expandable worldwide. The authors sought to initiate an archive to be composed of local and personal stories as a tool to quickly and effectively exchange ideas among the movement organizers, across spatial and temporal boundaries. The platform would address the expanded field of interested citizens and connect the users to the physical encampment and events at Dewey Square, an environment coded with the...
politics of urban public space and, by extension, inequalities and demands for democracy. Creating a centralized and open platform for collecting documentation over time, the project addresses a wide and expanding geographic network, as demonstrated by the transmittable Arab Spring and Occupy movement across the world. The project's impacts are limited due to the facilitator’s access to the desired audience, as well as a gap between immediate needs and archival intentions. At the time that this project was launched, the camp at Dewey Square in Boston faced serious threats of decampment, its ultimate fate on December 12, 2011, effectively concluding the testing period of this project.

Conversely, the UNICEF-Youth Mapping project has significantly impacted underserved communities in Rio de Janeiro both in terms of participation and lasting influence. Youth were genuinely affected and motivated by participating in the project’s workshops and the generated content has served as a valuable reference for community stakeholders. The role of the project was to document potential risks in select neighborhoods to initiate dialogue with policy-makers and improve these underserved communities; the local government has already taken action to remedy some of the documented hazards, including a dilapidated bridge.

Our intention is to compare these two case studies and derive a number of insights to inform the use of Civic Media platforms in the practice of participatory urbanism. Finally, we will discuss a number of qualitative elements to inform the design of civic media platforms for successful civic engagement and participatory urbanism.

2. RELATED WORK

2.1. Participatory Urbanism Practices

Historically, participatory practices can be traced to user-centric visions for architecture in the 1960s. Of particular interest is the work of Yona Friedman, an architect who advocated for architecture to remain a framework for further development by the inhabitant.

Visible in his theoretical proposals, such as Spatial City, ‘participatory’ is reflected both in empowering the user to act without the mediation of the architect by means of physical engagement with the manipulation and determination of space. Elements within Friedman’s infrastructures are mobile, to be adjusted and configured as desired. In his manifesto Mobile Architecture, he explains this infrastructure to be “neither determined nor determinant” [3]. The notion of the open framework is also visible in the work of Cedric Price, an architect who argued for engaging the inhabitant as a co-designers through temporary architecture and the integration of technology.
In engaging ideas of user-participation, we also consider the potential for the given ‘freedom’ to become an oppressive constraint. In *Nightmare of Participation*, Markus Miessen introduces his series of essays by challenging the current state of such practices: “Both historically and in terms of political agency, participation is often read through romantic notions of negotiation, inclusion, and democratic decision making. However, it is precisely this often questioned mode of inclusion that does not produce significant results, as criticality is challenged by the concept of the majority” [4]. He advocates for “uninvited outsiders,” individuals who seek conflict in order to create critical and productive change [5]. The overload of information produced by this ‘majority’ and ‘freedom,’ can be observed in the chaos of public comments on various websites, from news media to Facebook. The question that follows, then, is how a platform can begin to make this dialogue productive.

Participatory practices have proliferated to occupy increasing amounts of physical urban space, as visible in the national event, (Park)ing Day [6]. This event encourages citizens to rethink the purpose and potential uses of a parking spot. Participants physically take over space and insert active programming such as parks, cafes, playgrounds, and sleeping quarters. It is an entirely citizen-run program – flexible in size and execution, decentralized and participatory, both institutionally and publicly. The project engages three levels of society – citizens, organizers, and government, and encourages reciprocal conversation. Its success can be seen in its continued execution, increasing participation, and expansion to multiple cities.

Similarly, the inflatable structure created by Spacebusters [7] can be deployed in any space of any city, creating ad-hoc spaces for public gatherings, lectures, exhibitions, group dinners, etc. As a temporal and flexible object, it can be evaluated in regards to its ability to engage any space within a city – the public, the interstitial, the neglected; and to engage citizens through curiosity and events.

Contemporary participatory urban practices combine urban planning and social practice, visible in the work of Candy Chang, founder of Civic Center. Such creative interpretations exhibit the productive nature of participatory platforms and practices. Chang situates her projects in the public realm, using buildings and streets as her so-called canvas, and creates possibilities for residents to voice their needs through simple analog methods. Fill-in-the-blank stickers line vacated walls in New Orleans and await residents to complete the prompt “I wish this was ____” [8]. Civic leaders and developers use the polls to evaluate the requests in different areas, vacant real estate, and existing public spaces, as “the responses reflect the hopes, dreams, and colorful imaginations of different neighborhoods” [9]. This iteration has extended to the digital realm, as the stickers are available online for use in any city internationally. Her subsequent project,
Neighborland creates an online forum where citizens can respond to or support suggestions by neighborhood.

2.2. Open Source Communication

Communication is an integral aspect of participation, as it requires a citizen to speak, a community to listen and respond, and asks for a dialogue between individual and institution. Communication is read through multiple modes of narrative – written, oral, visual, as well as through structures and degrees of conversation, in physical and digital realms. Inquiry into participatory practices directs us to also identify the open source movement – providing open data, open software, and open infrastructures that invite any interested individual to gather and gain from the knowledge of others. Open source originates in the digital realm, and has taken shape in the physical.

[a] Candy Chang, “I Wish This Was...” http://candychang.com/i-wish-this-was/
Participatory forms of communication exist in many forms, from literature, to spoken word, to film. The literary narrative, such as that in Italo Calvino’s *Le Città Invisibili*, provides the reader with innumerable ways to understand and approach a definition of place [10]. Creative communication, like that exercised by StoryCorps, a group which records and collects oral histories, multiplies one-to-one interaction to an act of public broadcasting [11]. This has become a user-generated oral archive available to the public, while the only framework for the recordings is a physical booth in Battery Park, New York. Crowdsourcing projects can utilize public knowledge for the creation of new material, such as that exhibited in the reinvention of Dziga Vertov’s *Man With a Movie Camera* by Perry Bard [12], effectively creating a contemporary interpretation of a historical narrative as a dialogue between hundreds of users as represented through film.

Transitioning from classical urban locations to the mobile social network, social spaces have been reconfigured by networked technologies. Social relationships are multiplied from one-to-one communication to one-to-few, one-to-many, and many-to-many. Certain models of communication and narrative are especially based in word-of-mouth exchange.

In the Occupy Movement, the organizers utilized open source communication to build a platform for organizational purposes, as well as for collecting and sharing up-to-date news from multiple sources. The Occupy Boston Wikipedia [13] serves as a depository for multiple user groups to upload media and notices about public gatherings, General Assembly minutes, and critical information about the Dewey Square campsite prior to its dissolve. According to the Occupy Boston website as of January 2012, the Wiki is specifically for Working Groups to collaborate online. The Open Source nature of a Wiki allows for horizontal participation, but also reads as a linear narrative, an authoritative account of an event or topic. Over the course of the movement, and especially after the dismantling of the camps, both the Wiki and the website have been in constant flux. These changes disrupted content upload, resulting in an inconsistent record with confused voices. In the streets and parks, the Human Mic [14] circumnavigates the ban of amplified sound in ‘public’ spaces within cities, and serves to transfer communication from an individual to a mass, through literal repetition. The echo of a certain phrase touches every individual within the space.

### 3. OPEN LOCAST

Open Locast [15] is a location-based media platform created by the Mobile Experience Lab. It is an integrated platform that combines mobile and web tools to help users create individual and collective narratives, share content, and build local conversations. Open Locast serves as a tool for horizontal reporting, that is, entirely user-generated content, populated as a centralized
space for photographs and videos generated by users, citizens, or specific workshop participants. As it leverages a user-generated tagging system to classify content and add semantic relations between casts, it allows for both user-generated, and user-organized content – creating and building an archive solely based on the content present and in real-time and location [4].

The Open Locast platform is composed of three components: the Web Interface, the Core, which consists of the backend and API, and the Mobile application, which functions on Android platforms. The Open Locast Core was developed in Django, which includes GeoDjango in order to incorporate a geographic web framework that enables powerful storage, querying, and geographic information manipulation. The core features an extensive network-centric API, RESTful and JSON, which allows data stored in Open Locast to be easily accessed and manipulated, allowing a wide-range of visualizations, statistical analyses, and user interfaces. Open Locast Web, which runs through Django, serves as the program’s web presence and interface; it provides a digital space for users to search and interact with content, and to submit content from any source. All map-based interactions and visualizations are handled by OpenLayers—a JavaScript library for displaying map data. Video casts are converted into a Flash format so content can be embedded in external sites and social networks. It currently functions on Android platforms, and communicates with the core using its API. The data is stored in an SQLite database based on the Android Content Provider framework. A custom synchronization engine handles change propagation, using last-modified comparisons to determine synchronization status and direction. The Intent framework records video and audio notes using the device-native media recorders.

4. PARTICIPATORY PLATFORM EXPERIMENTS

Open Locast is a configurable platform that can be customized to support different types of projects. In the past, it has been used as a learning platform for environmental sustainability [16]; as a location-aware mobile guide that allows users to discover new information through layers of contributions [17]; and to create interactive documentaries that are crafted by linking together videos and photos thematically, geographically, and chronologically [18]. It was also used as civic media tool to engage citizens in the process of collecting, reporting, and disseminating news and information related to the urban environment. The mobile application enabled the user to create street reports (casts) through video and audio content produced either individually or in collaborative efforts on specific topics and/or urban areas (projects). Casts and projects were created, collected, and shared in real-time on the Open Locast website, where community members could join the conversation by means of comments and further casts [19, 20]. This version of the Open Locast platform was the main inspiration for using the platform as a tool to support participatory
urbanism practices, in particular, the two case studies addressed here: Occupy Boston and UNICEF-Youth Mapping project.

4.1. Case Study: Occupy Boston

4.1.1. Objectives

The interest built up around the Occupy Movement is undeniable and despite the removal of the physical encampments in early December 2011, the movement has utilized the Internet to maintain its initial drive, motivations, and intentions. Without ties to a political party and without a particular set of demands, the movement is sustained by an absence of narrative: suspending history and time. The Occupy Movement serves as an exceptional model of citizen-driven social and political change and thus, an exceptional model for conceptualizing a mobile-web platform specifically for such events. While the media workgroup maintains a website and Wiki site to collect user documentation, publicize events, and as an internal organizational tool, it lacks the freedom of free-form public documentation. Similarly, while Occupiers and citizens-at-large utilize social networking sites like Flickr, Facebook, and YouTube to post information, it remains socially driven through friend-networks and cannot be comprehensively or visually expressed within a larger citywide, nationwide, or worldwide context.

4.1.2. Platform description

The authors adapted the Open Locast platform with additional features to facilitate the creation of a collective narrative and public history of the Occupy event and its evolution over time, as well as a record of its physical manifestations, such as the Boston encampment. Within Open Locast, a ‘cast’ is a media container, a single unit of audio-visual content further described by meta-information including a title, geographical coordinate, short text description, creation date, and one or more geo-semantic tags. In our application, each media container represents a “question,” categorized as personal story, collective story, or action. Answers to each question can be posted via the Open Locast mobile or web applications, allowing each question to gather multiple individual responses to be further sorted through semantic and geo-tagging. The concept and intent of Locast Occupied follows that of the Occupy Movement—it is grassroots, self-organized, and democratic in creating a citizen-based public archive and present history.
Locast Occupied web platform, questions in list and localized map view http://locast.mit.edu/occupied

Locast Occupied web platform, questions in list and localized map view http://locast.mit.edu/occupied

Locast Occupied web platform, questions in list and answers in list view http://locast.mit.edu/occupied
Agency is given to the users, whom the archive is to ultimately serve. Open Locast’s editorial system is based on an open-publishing paradigm. Users continually pose questions, allowing for a consistent flow of data that is collectively analyzed and organized. Submissions are not evaluated by an editorial board and all contributions are immediately available online. This self-regulatory model also allows Open Locast users to flag inappropriate casts whenever content is considered offensive or irrelevant. Users uploading media from a computer using the web platform place a location point on the background map to locate themselves and the content. Archived casts can be accessed through both the mobile and web interfaces, and each can initiate a series of text- or video-based conversation threads created through mobile and web commenting interfaces.

The platform currently loads a single layer of information, that of a single city, and of a single episode of a larger movement. Open Locast’s structure is expandable to additional cities involved in the Occupy movement, nationally and internationally, and could allow for communication in regards to a single event, demonstration, or worldwide march to be presented in a multi-layered iteration. As the date and time of each uploaded item of media is recorded, a networked structure could begin to emerge as the movement shifts in form and place over time. A design for a visual, scrolling timeline distinguishes this platform from other social media tools already employed by the movement, creating an interactive archive that can be accessed in a number of ways, sorting bodies of information over time by place or type of event or content.

To serve a citizen group camping on site with uncertain security, and engaged visitors and passersby, the intent and structure of the mobile and web application were translated to a parallel “lo-fi” analog platform. This platform, a fabricated mobile board [“Ask Us (the 99%) Anything”] was situated in zones that blurred the designation of public/private, as does Dewey Square, the site of occupation in Boston. Questions are written on stickers affixed to the board, color coded by the same categories created in the digital platform: “personal story,” “collective story,” or “action.” The analog iteration function much in the same way as the digital. Each question, or ‘cast’ acts as a receptacle for answers from those involved or interested by the movement. As answers to each question are written down, they are translated by the facilitators to the website. Integration of and interaction between the physical and digital apparatuses reiterates the necessary continuity and flow of information between the various constituents. The placement of the analog platform relies on its own physical space, yet also allows for the movement to begin to physically occupy multiple spaces outside itself.
4.1.3. Field Study

Our primary inquiry implicates the built environment of an urban site of protest, specifically that of Occupy Boston in Dewey Square. The architecture of this tent city acted as information, communicating occupation as a method for social and political change in seizing privatized space for public use. The expanded network of supporters necessitated a system for collecting information, one that would archive events in real time and space, demonstrating the geographical and time-based ripple effect of the movement’s message through visualization and personal stories — self-organized and operating democratically. Once we secured a stable mobile and web platform, we conducted a field study over the course of two months in Fall 2011 while Occupy Boston was headquartered in Dewey Square. The study sought to test the effectiveness of a user-generated platform for citizens engaged in public affairs. In addition, we examined the possibility of a self-constituting archive, one constantly in formation that attempts to equalize power hierarchies through user-generation and organization.

All participants were encouraged to use the platform to extensively capture any relational activity to Occupy Boston in three categories: personal observations, collective stories, and actions. Suggested possible scenarios included General Assembly meetings, trips to Dewey Square, campus events such as lectures or student group meetings, photographs of posters, visits to other cities, news stories, camping, etc.
The physical apparatus was deployed in various instances on and off campus. For the first deployment, we gathered data from the Occupy Boston Summit, a collective gathering in question-answer format. The data was written on the mobile analog board, and transferred to the digital platform in order to facilitate a continued conversation. Subsequent deployments involved placing the board in public/private locations on campus for limited amounts of time, and both active and passive attempts to gather data.

4.1.4. Results

The question and answer format was enabled in order to organize the casts and allow for entirely user-generated content for the basis of conversations. In our analysis, we evaluated the subject, context, and event within each cast. Here we begin to create a taxonomy of typological sharing.

The documentation begins at the smallest scale of the conversation, taking place within small individual conversations, student meetings, and other daily interactions in the private domain.

The most prominent casts were geographically hyper-local, and consisted of on-site reportage of specific events in Dewey Square, such as individual trips to the site, collective General Assembly meetings, marches, and protests. At a slightly expanded scale, local casts provided information for specific events on university campuses. These depict either an interior or exterior environment of the individual, as well as the various scales of citizens present at the time. If organized by a timeline, the subject-casts become visible as a network of actions created by distributed actors.

Event casts are supplemented by urban casts, casts of signs and presence of the Occupy Movement in the built environment exterior to Dewey Square, depicting the physical presence and distribution of engaged citizens across the city. These informative casts documented the physical components of an event that revealed the networked nature of the event itself and its presence in the city.

Throughout the deployment period, we observed a low level of participation among the six users (of 25 selected participants). The most active question collected six casts, and the least active question did not receive any casts. Most of the responses were not tagged, and no casts were flagged as inappropriate.

4.2. Case Study: UNICEF-Youth Mapping

4.2.1. Objectives

The objective of the Youth Mapping project, carried out by the MIT Mobile Experience Lab with UNICEF, was to empower youth in an underserved community in Rio de Janeiro with tools to map their own communities, where little is known about the geography of services and interactions that shape
daily lives. A specialized version of the Open Locast platform was developed
to cater to this specific cause, and a series of workshops were organized to
work with local youths and community leaders in using this technology.
Adolescents were asked to document potential environmental hazards or
disruptions in their community by capturing geo-located photos and
commenting on them. Through this hands-on investigation, youth were
encouraged to think critically about how maps and new digital tools can inform
community discourse on economic, environmental, and social sustainability.

4.2.2. Platform description

The MIT Mobile Experience Lab worked with UNICEF to build upon the
Open Locast platform and customize it for digital mapping. UNICEF’s
knowledge of the community and experience working with youth
contextualized the application of Open Locast by the MIT Mobile
Experience Lab. The Open Locast platform for this project consisted of a
mobile application to capture photos and text and a website to illustrate
and discuss the geo-located collection of media. Locast is a very powerful
locative media platform, but for this deployment, it was simplified to focus
on key elements and be best suited for youths. To this end, the mobile
platform only supported the uploading of photos and text, as opposed to
video and other media forms that were incorporated in other Open Locast
deployments; therefore a “cast” consisted of a photo and text comment,
which were geo-tagged and timestamped. Visualization for both the mobile
and web components were simplified and made more approachable for
youth. Finally, maps were organized around themes (e.g. erosion, sanitation,
power line problems, social spaces, etc.) to improve organization and
comprehensibility for the participants. In conjunction, the mobile
application and website helped the youth to create and distribute
compelling maps of their communities to inform policy and decision-making.

4.2.3. Field Study

Through the UNICEF Urban Platform initiative, a group of 125 adolescents
from 50 communities have been carrying out mobilization, communication,
and health promotion activities. Digital mapping is an integrated activity
within their community action plans and functions as a pivotal resource and
documentation method. To build upon this work, the Youth Mapping project
began and worked toward mapping environmental risks in target
communities. In preparation for a series of workshops, a “trainer of
trainers” session was scheduled with key stakeholders: UNICEF, the MIT
Mobile Experience Lab, the Public Laboratory for Open Technology and
Science, and a selection of Rio community stakeholders, including local
NGOs, technical professionals from the Municipal Departments of Health
and the Environment, local community members, and adolescent peer
mentors. The training session provided space to share knowledge and
introduce the technology to the community. After this initial session, workshops were collaboratively planned. Two five-day workshops were organized in Morro dos Urubûs and Borel, two underserved communities of Rio de Janeiro. The workshop hosted approximately 25 adolescents as well as the aforementioned community leaders, NGOs, and other local authorities.

Local experts instructed youth on how to recognize specific potential hazards. For example, mudslides are a major concern in these communities and thus, the youth were instructed to take pictures of certain erosion patterns and dangerous overhangs. The youth were provided phones and guided in using the customized Open Locast platform, and then worked with community organizers and UNICEF to create real-time portraits of their community. Altogether, the youth generated 294 casts, which are currently mapped and used as a reference.
4.2.4. Results

To assess the workshops, youth and instructors were interviewed according to prepared questionnaires. Technically, the platform functioned well. At times, a slow 3G connection prevented casts from uploading properly, but the information architecture of the Open Locast platform takes this into account and saves all generated content so that it can be uploaded when the connection is better. The interviews and UNICEF feedback attested to the success of the workshops as a means of building multimedia maps of the region. In addition to creating this resource, the workshops seemed to impact participants’ perspective and behaviors; many of the youth were inured to the state of their locale, but capturing specific risks and unpleasant elements helped them learn to expect more from their community. Emboldened, the youth began to see how they could have a voice in local policy. The success of this Open Locast deployment can in part be attributed to the extensive planning and controlled environment in which it took place. UNICEF’s vast knowledge helped to inform platform adjustments and various stakeholders worked together to plan the workshops. The project engendered participatory urbanism by directly working with the community to develop tools for the community. By highlighting not only technical design but experiential design, the Youth Mapping project successfully engaged the community. Three additional workshops are planned for the coming months, and with each new workshop the experience is refined to be more constructive for the youth.

5. DISCUSSION

This paper addresses the potential for civic media as a tool for creating user-generated projects that could be diachronically and synchronically utilized. By directly enabling citizens with the framework to order and chronicle events and issues, the Open Locast platform can be a powerful resource for participatory urbanism. However, the social context and mediation infrastructure need to be taken into consideration when designing for particular experiences. Two case studies show how the Open Locast platform was deployed in an effort to empower locals and provide a tool for civic organization and documentation. In the Occupy Movement in Boston, Open Locast worked to engage students and citizens involved with the movement as a test group for a publicly formed archive. The methodologies employed by the prototype encourage user-driven collection of material that is subsequently user-managed.

The notion of civic media as both a tool for present organization and conversation, as well as for future use as public archive, complicates the boundaries between social practice and politics; public and private urban space; and the agency of the citizen and that of the government. With the UNICEF-Youth Mapping project, these complications were mitigated through the controlled environment in which the project took place.
Stakeholders from various agencies were involved in the project’s conception and worked together to test, assess, and hone the platform. This hands-on, collaborative approach helped unify citizens and policymakers so that the final public record could serve as a valuable resource for all involved. These contextual intricacies can dictate the success of a participatory urbanism project, for in addition to designing the technology and interaction, one must consider the role of the local community in determining the final output.

5.1. Social Context

The Occupy Movement is characterized by a fragmented, heterogeneous, and dynamic community. It can be distinguished by the extreme diversity of potential user groups, not only in demographic diversity, but also in the diversity of roles and agendas within the Occupy Movement. This collective miscellany is that which drives the movement, and must be accommodated in the experience of the tool. The platform should accommodate the variety of profiles, from Camper, to Working Group, Speaker to Student, and acknowledge the necessities and differences of the core constituencies. Furthermore, given the plethora of existing infrastructures, the project necessitated the location of an insertion point—a possible position for the platform within the network in place. The components of a revolution or activist movement are constantly shifting, and any organizational or archival platform should be swift and adaptable to seamlessly assist the efforts rather than complicate them.

The Rio de Janeiro community is characterized by a consolidated relationship with the urban environment and social stability. Furthermore, UNICEF has a strong presence in the local territory, and extensive knowledge of community behaviors and dynamics. This contributed to a structured social context, where—unlike the fluid, activist-led landscape of the Occupy Movement—it was possible to explicitly guide user interaction and design for a more predictable environment.

5.2. Mediation Infrastructure

Given the nature of the context, for the Occupy Movement in Boston a “light” mediation infrastructure was chosen so that those involved in the movement would have the freedom to use Open Locast as they saw fit. Open Locast for Occupied Boston was a minimal, decentralized, horizontal platform structure for maximized user content and agency. In the case of the UNICEF-Youth Mapping project, we adopted a different perspective. By exploiting the specific role of UNICEF in the local community, we were able to precisely define user groups and organize a granular project trial. This level of detail is challenging to maintain in a protest-based environment, but is perhaps needed to secure a successful outcome.
Positioning the two projects next to one another, we acknowledge the needs of a mediation framework design that is both technological (to drive specific actions) but also social and cultural. The resources specific to the territory must be identified and the participation process must be structured around specific contexts.

Civic media platforms enable the participation of a large amount of people, engaging communities in the discussion and the articulation of multiple points of view. However, a number of challenges emerge when civic media are applied to participatory urbanism in addition to those implicit in participatory practices in general. The effectiveness of a particular platform is directly correlated to the willingness of the participants, and the design. Comparing UNICEF-Youth Mapping to Locast Occupied, it is clear that a project must be developed foremost with the community, which proves challenging in serving and archiving protests and demonstrations given political concerns and logistical constraints [21].

6. OPEN ISSUES

6.1. Civic Media Platform applied to Participatory Urbanism

The first issue is multiplicity of voices. The amount of content generated by users in a digital platform can rapidly become a wide data-set in which individual contributions are lost. A fundamental issue remains as to how content is selected, filtered, and re-presented. New social mechanisms can be incorporated into the platform to edit and curate content internally, and in a way that does not privilege certain constituencies.

Another fundamental challenge concerns the interpretation of content, both of individual contributions, and of the collected heterogeneous data-sets, specifically surrounding controversial issues.

Finally, we stress the absolute necessity of the transformation of dialogue into actions and the involvement of the local municipality or governing body to make direct interventions.

6.2 Civic Media’s Response to Urban Site

Based on our evaluations of the platform and contributed content, participant interviews, and outside reading, we highlight the following relevant insights that offer points of potential revision.

First, the immediacy of immediacy. A follow-up discussion with one participant focused on the immediacy that must be inherent to a platform. While potential users see, understand, and support the goals of the platform as future public archive, given the unstable nature of the Occupy movement, it lacked an expressive, compelling argument for its immediate necessity. This, we propose, can be addressed with closer specificity in service design.

Second, we must better acknowledge the extreme diversity of potential user groups, not only in demographic diversity, but also in the diversity of
roles and agendas. This collective diversity is that which drives user-generated content, and must be accommodated in the experience of the tool. An understanding of core constituencies’ ideals and needs is necessary for successful implementation.

Third, we must better understand how to engage users and resist imposition of a tool. For the Occupy Boston study, while we attempted to remove ourselves from the environment of the platform, implementation and facilitation necessitated our participation, and thus had an influence on the project. We believe that a civic media platform for a citizen-generated revolution should be a minimal, decentralized platform that maximizes user content and agency.

Finally, initial research involved a rigorous ethnographic component to identify existing platforms, efforts, structures, and potential users. Given the plethora of existing infrastructures, both physical and virtual, it is necessary to locate a possible position for the platform within the network in place. In the Occupy study, the components of the movement were constantly shifting, and any organizational or archival platform should be swift and adaptable to seamlessly assist the efforts rather than complicate them. The tool in its current application serves “after the fact” in mapping the history and ideas of the event through time and space as a collective and in the present, an important and accurate archival record, though not necessarily immediately serving.

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