

# Subway: Activist Performance through Mediation

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**Abstract.** Subway is a participatory multi-located activist art project. It builds on the mediation of a dance performance by breaking a video apart into its image frames; creating a photo app in Android to re-use these frames as guides for a frame-by-frame reenactment; and finally reassembling the collected images into a new video. Through the affordances of digital and mobile media, it allowed participants in New York and Teheran to create a shared dance performance as digital activist art.

**Keywords:** Digital Performance, Activism, Mobile Technology, Dance, Participation

## 1 Introduction

This paper describes the participatory art project *Subway* that used cell phone technology to combine different forms of mediated performances in Iran and the United States into a shared dance piece. Based on a collaboration between performance artist Ava Ansari and digital designer Andrew Quitmeyer at the Digital World and Image Group, *Subway* involved numerous performers in Iran, New York, and Atlanta who contributed in an asynchronous dance performance with the help of an Android cell phone application.

The goal of this collaboration was not to add technology to an artistic practice but to build on an existing performance art and create a new responding piece that uses the technology as a transformational tool.

### 1.1 Building on Technological Affordances

Communication technology has been credited to support powers for social change in various forms. Because communication is so important in shaping a political climate, repressive regimes often aim to control it in the form of state-run TV stations or censorship of press. However, digital communication channels such as cell phones

and online media can be difficult to control. Their flexibility adaptability force some local powers that want to suppress any activist communication to switch off certain services completely. This shut-down behavior by authority against new media has been observed in many protest situations from San Francisco subway stations [1] to the Arab Spring [2]. However, how significant digital media's role in these movements really was is debated. "When Wael Ghonim, a major figure in cyberactivism in Egypt, stated in an interview with CNN days before the ouster of Hosni Mubarak, 'If you want to free a society just give them internet access' (Khamis and Vaughn, 2011, p. 1) he was probably exaggerating" [3].

Without denying the important role of those technologies in activism, the goal in the project presented here was not to form a general communication channel. Providing "access" creates the possibility for communication and collaboration but those opportunities itself still need further facilitation to evolve, a discursive framework. These channels by themselves are not artistic expressions, because they allow expression of countless perspectives. For example, mobile phones are used by political activists representing opposing intentions at the same time. While they support conversation, they do so technologically and without any regard of the context. They contain a rhetoric logic in their functionality – but how this logic is applied remains open. To design channels that foster conversation as participatory art practice a framework is needed [4]. Thus, the goal of the here presented work was more specific: How can mobile technologies and digital media be utilized to create participatory artistic political expression?

This calls for a project design that builds on the affordances of mobile devices as facilitators for such a political artistic engagement. Among the particular qualities of these technologies is their ubiquitous presence, availability of shared technological platforms across boundaries, and wide-spread accessibility. These technologies also support various modes of interaction and documentation: they capture images, videos and sounds, while including additional information such as GPS data, time stamps, and personal tags. Therefore, these features laid out the technological and design space for our project.

## **1.2 Evolution**

Men and (especially) women are prohibited from dancing in public in Iran. Their expressive freedom is severely limited by this rule. So when Iranian performance artist Ava Ansari moved to New York City she recorded a dance performance as a response to this restriction. In the work, titled "Dancing by Myself in Public," she dances freely, un-announced, and uninterrupted in New York's Times Square subway station. In her homeland, this behavior would be very dangerous and most likely penalized with fines or imprisonment.

Ava's video formed the basis for a collaboration with the *Digital World and Image Group* (DWIG) at the Georgia Institute of Technology. Starting in Fall 2011, with an online meeting between the group and Ansari, Andrew Quitmeyer and other students

designed various digital responses to Ava's performance. These included abstractions of the dancing movements, telepresence concepts, as well as projections on bodies and on location. All of them were presented back to Ansari for feedback to inform any re-iterations of the idea. Quitmeyer's design evolved as the basis for the final project, named *Subway* after the location of the initial dance. It grew from Ansari's comment that her original desire was to share her performance with others living in Iran, but that such a practice remained dangerous. The target of the collaboration was to build this connection without explicitly breaking any rules or endangering any participant. The method was to deploy digital technology to transform the notion of dancing itself.



**Fig. 1.** Still from Ava Ansari's "Dancing by Myself in Public" (2011)

#### 1.4 Concept

Quitmeyer suggested an application where participants would re-create Ansari's original dance through a series of discrete poses. Each frame from the video of her dance would be abstracted and used as a visual overlay in a custom photo-taking app. Pairs of participants in Iran would take the app out into public areas and capture images of themselves aligning to the overlays in static poses. The pictures would be returned and re-assembled to re-form Ava's original dance moves but set frame-by-frame in Iran. Incorporating Ansari's feedback, the same approach was used to include entirely new "freestyle" poses from Iranian artists as notations for dancers in the US – a feature that was included but will not be the focus of this paper.

*Subway*, thus, deals with the mediation of dance but transforms the role of the media from a uni-directional online video to a bi-directional photographic exchange. It also plays on the ubiquity of cell phones – even in Iran – because the performers could stage their pose as an inconspicuous snap shot typical among friends who feed images like these regularly into their Facebook, Flickr, or Twitter accounts. These shots have become familiar moments of the connected and digital literate urban lifestyle.

Finally, it builds on an Open Source philosophy as the custom application was produced in the Android system, which allows for easy publication and code sharing. This was important for the project, because participating performers in Iran had to

remain anonymous to avoid possible retribution, so the distribution, installation, and de-installation of the software had to be simple and sidestep more limited, centralized, and monitored formats.



**Fig. 2.** Stills from the final artifact illustrating the concept. The performance is remediated via a digital arbitrator.

## 2 Subway App: Design, Methodology, and Implementation

A fully functional app had to be designed to bring Andrew’s suggested concept to life. The implementation of this design in an effective, yet safe manner would need to deal with several given and some unforeseen constraints.

### 2.1 Pose Generation

The only record of Ava’s original performance in the New York City subway, was a web-hosted Vimeo video originally created by Jian Yi.<sup>1</sup> The original recording was inaccessible. With Ava and Jian Yi’s permission, Andrew downloaded a high-quality copy from Vimeo, and used this as the basis for generating the abstracted poses. He brought the video into Adobe After Effects CS5, and traced the contours of Ava’s dancing body. This practice enabled him to carefully segment Ava’s image from the background in each frame. Images of these poses from each frame could be used to

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<sup>1</sup> “Dancing by myself in public,” Ava Ansari and Jian Yi. <http://vimeo.com/34677426>

match bodily movements for the re-enactment. However, photographic representation of a dancing woman could lead to charges of possessing “pornographic material.” Thus, the visual design of our poses had to deal with opposing constraints: Distorted enough to get by the arbitrary authoritarian distinction of “pornography” while identifiable enough for participants to correctly align themselves.



**Fig. 3.** Stylized poses to meet the conflicting criteria of relate-ability and distortion.

The resulting design takes the photographic poses, and processes them as layers of styles intended to abstract the bodily form. Each of these abstracted poses is saved as a semi-transparent .png file with a label including the original frame number.

## 2.2 Application Development

### Platform and Technology

A custom Android app was developed to enable the distributed performance. The Android platform was selected for its open-source nature. Whatever art piece we created, we intended to release it as freely as possible. Even more important in selecting Android was its relatively broader means of distribution. Like Apple’s iOS, Android has central repositories for sharing applications: Google Play or the Amazon Appstore for Android. But the platform also permits independent distribution and installation. One can use the compiled programs on Android devices as zipped .apk files in many different ways. This ability was essential to our design.

The Android app itself builds off a simple camera app featuring a viewfinder and snapshot button. On top of this, users can enter their anonymous user number into the app, and their assigned target poses will overlay the video preview. Finally, it also includes the mode-selection button letting the user quickly switch from the “Match” – style performance to the less conspicuous “Freestyle”-mode. This app was designed to work for any camera-enabled Android device including tablets and phones (compatible with Android 1.6 and higher), and thus needed to restrict the aspect ratio for the varying embedded cameras in order for the final results to correctly match-up.

### Distribution Design

The app was created with various deployment and retrieval methods in mind since Internet connections in Iran can be sketchy and state-run censorship sometimes block standard methods of distribution. Hence, we designed it to compress down to 9.6MB, making it small enough to fit under the common 10MB attachment limit for emails. In the worst case of complete internet cut-off, it also permitted participants to copy the app onto inexpensive thumb drives for physical distribution. After participants installed the application on their mobile device, they would collect their assigned poses. Then, they returned the generated images in a similar fashion, uploading to servers, emailing, or physically mailing the data back to Georgia Tech. In the end of

this particular instance of the project, using several large Gmail accounts seemed to work best to discretely channel information back and forth.

### Image Allocation Design

Another key factor to the app's distribution was the allocation of groups of frames to specific, yet anonymous individuals. Hundreds of frames needed to be re-posed. As a result, we could not expect every participant to collect every single pose but had to find a way to split the involvement. For privacy and security reasons, we also could not follow the traditional digital app design where users would sign-up to a centralized service that intelligently assigns specific frames to specific individuals. In many ways we needed the opposite of a viral social media platform. We settled on the design of a redundant app containing all possible poses, but assigning a chosen few to specific individuals. Technically, every copy of the program contained all 1000+ frames needed for the project. Participants entered a user number, which defined a specific set of random frames for them to perform. Anonymous users distributing the apps amongst themselves, then simply needed to keep track of what user numbers had been completed, and which still needed performers. In this way, highly-participative interactors could fulfill as many frames as they wished (by choosing more user-numbers and unlocking more frames), and participants who were unable to fulfill their allotted frames could have their anonymous user-number re-performed by others. All this would be possible largely independent from each other. Using this method about 98% of the total frames were enacted and returned for recompilation at Georgia Tech. There was only a 5% overlap of data. Ultimately, the design was effective to engage contributors and the distribution as inconspicuous as possible.

### Interaction Design

Although the project did not break the underlying rule directly – it did not call for a public flash mob dance performances, for example – the underlying intent of the project was still subversive. Thus, the interaction design had to be adjusted.



**Fig. 4** a) Members of the Digital World and Image Group testing the performance of an early version of the *Subway* app. b) Close-up view of “at-home” testing.

Once the app was in an early state, we prototyped the entire process, simulating distribution, use, and data return, with the group at Georgia Tech. One key factor we discovered was that the size of the overlay directly affects the distance between the participant pair. The further apart a pair stood while directing and aligning bodies to

templates, the more noticeable they were in a crowd. Thus Andrew worked to maximize the size of the visual overlay within the bounds of the performance on the screen. In these early tests, a concern was brought forth by Ansari about the potential hypocrisy of forcing the Iranian participants to only match her performance. While the pose-by-pose participation in the dance was a key concept of *Subway*, it remained directed only from the original “Dancing by myself in public” video to its re-enactment. The re-enactment frame-by-frame is a new form, different from the first dance and not a mere re-creation. However, the artistic creative contribution of the Iranian performers needed to be clearer supported. Therefore we added an additional “freestyle” mode to the application, which removes the overlay, and lets participants pose in any manner they wish. Ansari will use collected “freestyle” images to inform a second dance in in the US. The goal is to mediate a dialog between the participants in both countries. The final outcome of the project, thus, is twofold: the continuous dance re-assembled from the individual images following the original movement; and a collection of freestyle postures of anonymous Iranians in public places that will guide a new dance performance in the US.

## 2.2 International Performance

The entire performance of *Subway* spans two countries and features actors in very different, specialized roles. “Dancing by Myself in Public” was originally produced 2011. The design, implementation, and re-iterations of the *Subway* project were conducted in 2012. The Iranian participants and performers collected the necessary frames over a period of approximately 10 weeks. Those were assembled to form the final product of this stage: a 4-minute video of the collected frames and documenting the creation process. This video is a trace of the actual event that was realized through the participation of performances in New York, Iran, and in technology.



**Fig. 5** Sample stills of the Iranian performers posing in public for the dance re-enactment.

## 3 Conclusion

A key element of *Subway* was the use of technology not as addition or amplifier of existent art practice, but as a transformative force in a collaborative art piece. To

achieve this, the project combines different forms of performance. Ansari's original dance in the Times Square station exemplifies a form of cultural performance, defined by McKenzie as "the living, embodied expression of cultural traditions and transformations" [5]. Exactly this option is not available to the Iranian participants. That is, why the cell phone application acts as a form of technological performance, for which McKenzie emphasizes the computer's role, as "[t]he computer not only performs, it helps produce performances of other products and materials" [5]. In the case of *Subway*, the technological performance is achieved by the design, implementation, and usage of the Android app. The performance of this app is to be understood as the necessary hinge that combines the different dance representations to a new result. It deconstructs the video, uses the resulting elements as creative cells, and reconstructs the results into a new moving image piece. Auslander has questioned whether "live performance is a specifically human activity" [6]. The role of media as a connection between the Iranian and US American performers demonstrates a form of asynchronous live-ness that defines the *Subway* project. Through this particular design, it manages to criticize restrictive practices and foster the dialog between artists in both countries. Ultimately, the project harnesses both, the expression of human performers and of mobile devices to achieve a participatory political artwork.

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