# DESTINATION: STREET ART TORONTO BY RIDA SALMAN RABBANI

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Master of Design
in DIGITAL FUTURES

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Master of Design

**Destination: Street Art Toronto, 2016** 

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**Digital Futures** 

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Abstract

The designed platform facilitates a conversation between street artists and

their spectators in terms of the street art of Toronto. It is a tool to be used in order

to build a digital community, to represent the artists' views, and understand public

art. By allowing them to freely express themselves through their own art, this

platform has started a dialogue onto the street art itself. This is done in the way

spectators capture, engage and show their relationship with the public art of

Toronto. Collectively, the submissions are mapped onto a photo map, using

geotags, representing the actual location of the street art on the roads of Toronto

that is uploaded onto an online platform. The product of Destination: Street Art

Toronto is a whole new digital world, similar to a segment of Second life, as it

exists outside of the physical realm visualized onto a virtual environment.

**Keywords:** Toronto, Street Art, Public Space, Artist & Spectator Dialogue,

Digital Community, Expressive Medium, Web Platform, Photo Map, Locative

technology, Multiple Engagement, Visual art, Geo location

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## Chapter 1: Introduction & Social Context of Problem

The street has been a compelling source of inspiration for generation of artists, it is much more than a venue. It can be seen as a source of material and engaged approach of addressing the subject matter that the artist wishes to address through the work. Street Art, Street Life (2008)

The visual language of street art, goes back to the early 1920's and 1930's, when young people responded to their socio-political environment by practicing this artistic expression, as a process of creation, through destruction (Gastman, Neelon, 2011). The turning point of this expression, used by the many subcultures, was during the 1970's when the melting pot of cultures, race tensions and crime of New York City formulated a particular art form. An art form created to serve as an escape from everyday dangers, but also an art form worthy of putting one's life in danger for the sake of creating (Chalfant, Jenkins, 2014).

Since the 1950's, artists have been using the streets to explore a range of themes related to the street, as an arena for political and cultural expression, advertising and commerce. (Gastman 2011). By not confining the pieces of art to traditional

space, many artists add an element of chance to their work, through the reactions of unsuspecting onlookers.

Briefly touching on spatial practices by Certeau in *Walking in the City*, De Certeau wrote about memories as tying us to the space because that is what gives the neighborhood its character (Certeau, 1985). This has led not only to a complex mass society, but one of the most distinctive forces within that society has been allowed by the individual's imagination, unparalleled freedom for expression.

Street art has come a long way from just being chalk marks and public writing, thought of as clumsy, untutored and willfully destructive to commercial utility. It can now be considered as the discourse used to initiate the dialogue among the masses (Yip, 2010). It has given birth to artists who create breathtaking murals, and those who have incorporated video art and other performative aspects to creative work on the streets. The street art this thesis will be focusing on is graffiti. It is however not just about the tools used by the street artist, but the visual communication of the ideologies put forward, and the position and stance the street artists take through their work. In order to be fully understood it needs to be deciphered from not only the creator's point of view but also the spectators.

This thesis explores, not just the key themes represented by the artist, but uses them to structure an argument. This is done in order to represent the core importance of creating a community around the representation of street art itself, the public space it occupies and how the discourse between the artist and the spectator can be communicated in this light, and as a part of the digital community. I did this by addressing my research question: How can street art be used to stimulate a dialogue between the spectator and artist and thus, serve to promote a dialogue in a digital community?

The street art of Toronto will be used as a mediator (middle ground), between the artist and the spectator's perception of the art. This will allow them to express themselves on the street art without damaging the original graffiti and how they choose to keep the graffiti alive through this new digital space.

This has been done by doing a needs assessment analysis for which a concept project overview was required on the digital features of the platform. Some of these needs include: to be locative, online based, captured on a mobile device (in order to be portable), and integrated with photo & video sharing services, as well as social networks. Once identified, it allows users to artistically capture street art

through pictures and videos, draw or add art to it, and share them further in order to create this platform. The functional element of this will be through a photo map feature, which lets spectators showcase where they captured the photos, or explore where the designer has taken photos and show the new map of visuals, seen and expressed, by the spectators. An API will allow the spectator to pull a volume of photos shared under a certain tag, and display them on the digital platform.

#### 1.1 Motivation

My interest for street art stems from my everyday commute, between Mississauga and Downtown Toronto. Every day, as I started my journey from the Islington subway station, Toronto's 'Village of Murals', it was fascinating to see the murals and plaques symbolizing territory, and the way community boundaries are reinforced. It made me curious enough to research the neighborhood, and I found out that although these are commissioned depictions of the Dundas Street, they are rich in building a notion of community "heritage". My daily journey then continues from the on the Bloor line, as the subway worms its way out from the dark hole between the Dundas West Station and Keele station. The graffiti grabbed my attention, as it does not only force us to pay attention to it, but rather adds character to the neighborhood. Representing the space, and adding an artist's expression to the city, whether the artist is adding a personal expression, a social or a political rich visual content to the public space.

However, street art, which consists majorly of graffiti in this case is not just about what the artist is trying to say, but also the context spectators add to it. Spectators see it not just in terms of aesthetics, the context and the understanding of how the same visual art communicates very differently to diverse groups within the community. It was interesting for me to see how these different perspectives from surveys and interviews, translated into a very dissimilar understanding of the space and how they represented street art of Toronto. I wanted to explore the perspectives of spectators about what they saw as street art, the portrayal of public spaces and how they interpreted it in order to delve deeper and express themselves freely. This had to be done by giving them a space to be expressed visually and interact with other street art of Toronto. This allowed preservation of existing street art and rather, a platform for dialogue to be formed around the different pieces.

Through my thesis, I want to create an open space which is free of judgment and gives the artists and spectators a way to navigate through as a digital community, as they express themselves collectively through their art on street art of Toronto. This was done by keeping the research question in focus, along with the key themes of how street art can be used as a point of dialogue between the spectator and artist, as well as the implications of using the public space to create street art.

#### 1.2 Scope & Limitations

Street art is art that is specifically developed for public spaces and streets. Over the past few decades, famous street artists such as Banksy have made this a global phenomenon and have helped to make this art form mainstream. The artistic energy and being an alternative to unwanted graffiti, has made the public more appreciative and understanding towards the purpose and nature of street art, in non-traditional art spaces.

With the diversity in culture and styles of street art, Toronto has become amongst the best street art cities in the world. Jason Kucherawy, the owner and operator of the Tour Guys in Toronto says "Graffiti art adds color and is evidence of a vibrant, living creative class." Tour Guys gives an extensive insight through the tour on the many sides of graffiti (Pocock, 2016).

For this thesis, I have designed a platform which bridges the gap between the faceless artists and spectators as a part of the larger Toronto's community, by plotting their creatively captured street art onto a photo map and inviting spectators to form a community which exists only digitally.

In order to automatically map the user generated content onto a digital community, the platform requires using a hashtag on Instagram, which gathers data and translates into the visualization of this information. Although Instagram

does not claim ownership of any content you post, by using this platform you grant it a license right to use any of the content use post anywhere in the world, it can also give third party those rights (2015, Deosaran). The hashtag used to collect the data also does not qualify for intellectual property as they are not ideas or inventions subject to patent protection, as well as being to short to qualify for copyright protection. In the case of this thesis as it is facilitating a dialogue onto the street art itself, trademarking will result in limiting the results (2015, Saper)

It is important to note that, when using this platform, the images of street art go from being public property to a private domain and changes the legalities of ownership through the way the spectators "see" the physical/digital space. The platform is facilitating the dialogue in respect to street art of Toronto, it is reimagining the public regarding perspectives of spectators in conjunction with the street artists. Nonetheless this changes the platform from being just an archival space to a user generating domain online.

#### **Chapter 2- Literature review**

This chapter will be divided into two main parts: the first part is how the idea of community building is encouraged, including the stance and position street art takes in the public domain of Toronto. The second part discusses the implications of street art in the public space, considers how space can be defined by antigraffiti groups, commodification of space and redirecting artist energy based on the different ideologies coming from those with power over the communities and the ownership in public spaces as compared to in private spaces.

#### 2.1 Context of Street Art in Public Space

De Certeau's distinction between place and space parallels that between text and the act of reading. He writes space is a practiced place. This means that the street is geometrically defined by urban planning and transformed into a space by walkers, in the same way as an act of reading is a space produced by the practice of a written text, i.e. a place constituted by a system of signs. This public space is used by artists as a working environment and they see the potential of the city, not just in terms of the potential the transformation of space holds, but also having the ability to transform mindsets (de Certeau, 1984).

This process begins as soon as participants embrace the space or practice their hands on painting this visual culture. It truly sets in when spectators are able to decode and read their visual communication. Only then have they reached their true purpose, whether it is for social, political purposes or a form of personal expression.

In the 1970's and 1980's, a number of artists contributed to this public art by responding to pressing issues by turning the cities into a venue for activities and events designed to reach an audience beyond the art world, reflecting their interest in mixing art and life (de Certeau,1988). Some of these social issues reflected on urban decay, homelessness and gratification.

What was interesting about the Flux tour series of curbs, public restrooms and other sites in the SoHo area of New York city, was that they heavily relied on blurring the distinction between the art and non-artist as well as the artist from the audience. In this way there was a turn in the shift from one-time event pieces based on daily activities to activities virtually indistinguishable from daily life (Certeau,1988). Some artists looked to the street as the scene of everyday life while other artists saw the street as an arena where attitudes and behaviors were largely shaped by mass media.

Street art is an example of the many hybrids of global visual cultures, it is defined in a larger context by real time practices and locations rather than any theoretical

art movements or historical messages. Although in the past, many artists captured this work as part of the documentation or using the public space as a stage to their non-traditional arena, street artists today use the spectators gaze to voluntarily follow the idea or action behind their street art which is developed not just by the space but rather the art itself. Whether the street works seem utopian or anarchic, sympathetic or aggressive, stunningly well-executed or juvenile, derivative or original, most street artists work seriously on the genre of their choice to form a deep identification and empathy with the city they are in. It is only then they are compelled to state something in and with the city, whether as a form of protest, humor, critique, subversion, irony, beauty, clever prank or all of the above. The pieces can have a short life cycle, lacking in acts of beauty or forms of countericonography, inhabiting spaces of abandonment and decay, or signal jams in a zone of hyper-commercial messaging. A well-placed street piece reveals exactly that in terms of its meaning and context, making the invisible visible again, or reimagining a city. A street work can be an intervention, a collaboration, or a commentary in the form of a dialog, a critique, an individual or collective manifesto, or an assertion of existence. Even though the street art work being referred to in this thesis is graffiti, no matter what the medium is, the motives of the work are an essential precondition for making the artwork work.

This concept is especially important in terms of the role the spectator takes on, in order to understand the potential of art's mediator function. It does this by using

the public space and redesigning it in such a way that it recognizes and adds character to street art. The constantly changing nature of street art can now become eternal by attaching perspectives to street art in a digital community.

Street art assumes a foundational dialogism in the way each work is inserted into a street context. This can either be a response, a reply or an engagement with prior works and an ongoing debate. It anticipates a response or a commentary for the public as a visual mark.

Vito Acconci methodology connects the private with the public through the representation of space, where people can organize their own performance, while the key process is through the sensory relationships between the space and body and above all ambience related relationships that unfold between the public and private spaces. It is explained by Vito Acconci's methodology of connecting private with the public which can be considered a strange relationship of space. He further goes to critique the artistic subjectivity rather than determining the course of the performance himself he allowed it to be dictated by the random people he picked or one might say by the of the street. "I let my control be taken away - I am dependent on the other person". This reverses the typical relationship between the artist and the viewer, especially given that in this case the viewer does not know he or she is participating in the work in order to perform the work. Acconci, himself, chooses to stay discrete (as the goal is not to terrify the unknowing participants). Acconci's inversion of artist/viewer relationship in

Following Piece creates a conundrum, a performance that is public it takes place in the street but secretly so or invisibly (Acconi, 2012). This perspective is important as it explains the relationship between the artists and spectators in terms of the art itself.

For many street artists, a city is an information engine, as they move around documenting their art practice in real time and deciding on which surface to mark and inscribe visual interventions, this signifier only becomes signified when this visual information gets the observers attention and addresses to the messages to the passer-by and it is then that it becomes communication. Which is why street art is a competition for visibility and can become competition of power depending on who is managing the visibility. Hence, street art can challenge two main regimes of visibility—legal and governmental on one side, and art world or social aesthetic on the other—which creates the conditions within which, it must compete for visibility.

An example of how the relationship between the two can be taken into control is a group of artists living in New York known as Swoon Union, they work with the city not only as a medium but as a muse and are attempting to create a participatory model for citizens to take an active part in the physical and social structures of the environment they live in (Haas and Wolf, n.d.). The concept behind this is how the cities have a private space which by its nature is owned exclusively by an individual or a company; as well as public spaces, such as city streets, sidewalks or parks where the general population is allowed to enter

without pretext. This space, which rests on the surface of privately owned places, on the walls of buildings, the insides of subway cars, the side of a city bus, which can be considered the balanced mental space of a city. Through direct interaction with this kind of space the group of artists are trying to divert the attention away from advertisers and the designated uses of this space and conceptualize them for active citizens.

These citizens are participants, rather than subjects in their own environment.

What appeals to the spectators through this kind of relationship is that the images have no clear message or a target audience. They are not political in nature.

These public interactions are what the focal point of interest become.

In a similar way, Graffiti Alley in Toronto has become not just a tourist attraction but also appeals to the locals of Toronto as an energetic street in terms of the public street. Spectators can expect to find popular graffiti bombers here, as the street art community gets together to celebrate the different subcultures.

These ideas and themes keeps the street art culture of Toronto alive and is an alley where graffiti is legal. An example of a great piece is a building covered in graffiti by a local Toronto street artist Uber 5000. Another one of his artwork depicts singer/songwriter, Nellie McKay with lyrics to her song. Interestingly enough many walk by it every day as passive viewers of the street art but have very little

interaction and an opportunity to engage and express themselves through the street art. It is still a part of their journey but lacks their reflection and voice in terms of the dialogue between the artist and the spectators.

Which is why through this thesis, I want to capture their impressions in a space in which, the users can begin to share their creativity, open up in terms of what they see and what they choose to express. Which is important in terms of them knowing where the dialogue begins and moving past the barriers of public space and is able to grow in terms of perspectives.

#### 2.2 Visual Culture and Ideologies of Space

The evolving relationship between the active and passive members of the street art community is in the power of space and the difference is how the space is utilized in terms of graffiti and public art and the broad domain of advertising with their transformation of everyday objects. Some of these forms of representation are often included in the umbrella term mass culture, and by adopting the word popular as a label of convenience we do not mean to imply that there is something spontaneously generated or democratically appealing about all this material (Varnedoe, 1990). Advertising for example is clearly used by commercial enterprises for the making of images for sale or to promote selling and are aspects of what we call an overload of cultures directed by a few people towards a broad audience. Caricature and graffiti by contrast seem to fall into the term we call underbelly culture, a tradition of social criticisms or raw outlaw drawing and while advertising has flowered in the modern era, through the technologies of mass reproduction. (Varnedoe, 1990). Caricature and graffiti are much older forms of expression made uniquely if often anonymously. But because of these differences we can see them as two distinct yet parallel aspects of modern art. The way it responded to unfamiliar, developing aspects of the modern world, like billboards and also the way it decides new forms to address that world from sources that were familiar but ignored or long belittled like graffiti.

When faced with such restriction, it's inevitable that graffiti would become a political tool. Often times, it's the most accessible method of public discourse for young people with an idea. The city has increasingly become a space completely built around consumerism. The freedom of expression has come to mean the freedom to advertise. Advertisements on billboards, advertisements on public buses and trains, advertisements on benches, advertisements on clothes, advertisements on radio, advertisements on television, advertisements on menus. The transformation of graffiti is often seen as an explicitly political tool, used by those with power of space. Of course, nothing resists commodification for long, and even graffiti is seen as not being immune. While the political import of graffiti increases, corporations are already seeking to use it for their own purposes.

This perspective is important in terms of allocation of space not just in terms of the actual space itself but the ideology of control and distribution as well as the attitude and beliefs in the making of this street art and the perceptions which shape their encounter with the public and private space. This is through how they respond to the representation of mass culture, whether they consider advertisements and consumerism to be creeping into their public space or a form of expression. In this way the discourse is made richer by allowing both sides of the argument an equal opportunity to reflect on this knowledge of not just boundaries but the representation of the street art.

#### 2.3 The Flipside of the Artist & Spectator Relationship

A powerful example of the politics of space is 5Pointz, which is an outdoor art exhibit space in Long Island City, New York. This is considered to be the world's graffiti Mecca, where aerosol artists from around the globe paint colorful pieces on the walls of a 200,000-square-foot factory building. On August 21, 2013, the New York City Planning Commission unanimously voted to approve plans to build condos on that property, while the New York City Landmarks Preservation Commission rejected a landmark status nomination by the artists because the art was less than 30 years old at the time. On November 19, the graffiti on the exterior of the 5 Pointz building was painted white overnight, providing images that showed the building's previously graffiti-covered walls partially covered in white paint. A message posted to 5 Pointz's Twitter account on the morning of November 19 confirmed the reports (Frazier, Richardson, 2013). Despite a lawsuit filed by 5 Pointz proprietors, as well as a rally three days prior to gain petition signatures to protect the building from demolition. However, on November 20, a ruling by a federal judge stated that the whitewashing could result in the Wolkoff family having to pay damages to 5 Pointz artists. Of course the demolition by the government officials was negatively received by artists and to protest to the situation two works were done on the building as artists sprayed "Art Murder" in big blue and red letters on the side of the building. The artists felt disrespected, because it resulted in a scarcity of cheap and legal mural spaces (Bayliss, 2004).

This case study is an example of how corporations capitalize on space despite them having permission for the factory to be used for legal graffiti work and discourage vandalism by encouraging artists to display their work in a formal showcase. Walter Benjamin sheds some light on this shift in perception explaining this through the concept of aura, which cannot be replicated through the mechanical reproduction of art itself. Hence, the aura for Benjamin represents the originality and authenticity of a work of art that has not been reproduced. A painting or a street art piece has an aura but just replicating it by taking a photograph or recording it is just an image of an image (Benjamin, 1936). The work of 5 Pointz cannot be replicated without its authentic nature being questioned. So if they capture it artistically to make up for the void they can keep graffiti alive even without its physical presence.

The project Alleyway of Dreams by Sarosh Anwar is in the corridors of Toronto itself and is about creating a cross-pollination of art and culture in east end of Toronto. It is a 50-year project embracing nature, freedom of imagination and community and human potential. This project is not just a community art piece attempting to transform the economy and neighborhoods of its perception of the area but also draw onto the discussion, foot traffic and media attention for both the residents and tourists alike (DVBIA, 2014).

This place will encourage trust and conversations amongst people in a natural, unforced way and the long-term goal is to be a corridor for the artists to stimulate spectators and serves as a diverse and creative way of use of public space, while also encouraging more interaction with this space that is shared, rather than privately owned by the people. It ties in with the concept of aura that Benjamin talks about as the street art on garages may be there one day and replaced another day. Photographing them will not bring their presence back, nor will it be free of the concept of mass consumption. Which it does by attaching these attitudes and beliefs to them and directing the eye towards a specific place and a specific story which introduces a whole new appreciation of art, while at the same time, a whole new mode of deception and distraction also enters.

Street Art Toronto is a pro-active public program to counteract the negative effects of graffiti vandalism and redirect the role of space in generating social and economic benefits by adding character to neighborhoods and increasing awareness of street art across the city (Pocock,2016). This will not only improve the relationship between the spectator and the artists through the public art work itself. But it will also be creating a space which is to be utilized and is well in

grounds of what is considered legal space but also contribute to the vitality of the streetscape as not just as a commercial message, but a visual link that communicates positively and reinforces building better relationships amongst the artist and the viewer, through a common ground. This common ground in the case of my thesis will be in the form of a facilitated platform which will continue to thrive of how spectators see it. Street art in this case invites the spectator to contemplation; before the spectators can abandon themselves to these associations.

#### 2.4 Public and Private Realms

Public and private are social constructs when it comes to conceptualizing different domains of everyday life. From the interiority and privacy of our bodies to the publicness of city streets and public space. In common usage it refers to the degree of access granted to outsiders, but these outsiders are defined by the public and private system. (Arendt, 1998)

Despite digital privacy agreements, the boundaries between public and private are ill-defined and often contested. Rather than existing on a binary opposition, public and private spaces often overlap and intersect, creating a mosaic of spaces and degree of access. Rarely is a space either just public or private but a multilayered and disputed in terms of legalities of ownership of this space (Gieseking, 2014).

Public and private are contested realms, in terms of street art, they can be addressed as an issue of politics, especially since street art exists in the public domain, leading to a separate debate of legalities of the artwork and in terms of the space that it occupies. Another way to think about this is through individual rights and activities. In this case "public" is used to refer to the spaces of approved social interaction, while "private" refers to personal space intimate encounter (Habermas, 1991).

The distinction between the two is important to be emphasized, not just in terms of the two spaces involved, but rather the ownership and involvement of people with this space and more importantly here the transfer of ownership from a public domain to a private one. This becomes more apparent as the context changes, within the spatial domains and the distinction becomes more apparent as it goes from physical public walls to being represented onto the web platform. User access to the artist's street artwork on street walls can now be mapped onto the digital space of this new community.

#### 2.5 Visual Dialogue through Street Art of Toronto

So far we have talked about the common link between the artist and spectator, not just in terms of the space they share and how it is used but the actual art, but the discourse it becomes a part of for the onlooker. Whether this is for the purpose of being aesthetically pleasing. It all starts to tie into place when its not just starting a one sided dialogue but creating a new digital space to initiate the conversation between the artist and the spectators. This can be expressed individually, collectively or on a global community space like Second Life, which is an online virtual world and we will use it as a proof of a model to how our community works later on in this section.

Let's start by looking at what dialogue is in connection to the spectator and artist and the art itself. Dialogue can be defined as a kind of interaction that occurs between two or more people in effect to an idea or a process of another (Nakamura, 1964). The exchange of ideas can be both visual or auditory, hence I will recognize this exchange of ideas by giving spectators a space where they can open up their thoughts and responses allowing them to communicate direction onto the street art. The use of social mediums allows users to be more familiar and comfortable in sharing and conversing directly onto a space that encourages engagement with street art.

As mobile devices are becoming increasingly ubiquitous and people are constantly encouraged to document their everyday activities, researchers, planners, and local community organizations are faced with new opportunities to better understand their locality through access to publicly shared social data (Anderson, Rainie, 2014). In this way, data generated by users of locative media tools might provide new ways to study activities in specific places and uncover local insights. These insights which were only available to a limited groups of people, have over the years been used to study particular places and the social participation that takes place there. More importantly giving rise to important issues that I wish to address through my thesis research regarding what is the social media image of a public street art of Toronto, how can we use social media data to compare these places and trace their differences? And finally what are the demographics, activities and social interactions that are not captured by this data and should be taken in consideration when using this kind of data in decisionmaking processes? That said, the focal point is not just direct social interaction itself but opening up access to geographic data and information around the street art of Toronto. This new activity and the aura created on this new community are based around what stories the citizens of this new community are sharing through the visual culture of street art of Toronto and how it is depicted from its natural settings to a digital one.

Second Life is an example of an ambitious and influential innovation in the digital real world. This digital city attempts to foresee a platform that enables immersive, imaginative and real time interaction on this online virtual world (James, 2013).

This community is built using user generated platforms which exist as a blank canvas until people start cultivating and inhabiting these digital spaces, allowing users to make of it what they will and explore other rooms and spaces recreated by other users. Even though technological tools and platforms are just beginning to reach their potential of transforming user engagement and immersive nature of the digital environment. There is however, a clear divide between the physical and digital world interaction and explorations not just in terms of objects and creations but also the mindsets and relationships people have within these environments and spaces.

By using this concept of how communities can be openly accessed and create new experiences with spaces and objects within them to create a dialogue. The avatars of the Second Life community, can be explained as users of Destination: Street Art platform and they can choose to engage or add to the user-generated content. It is then opening up to the possibilities of how immersive and creative they chose to get with the content generation on the platform. This gives them complete freedom to generate different mediums of visual content as a representation of their interaction with the street art, within the physical sites of Toronto mapped outside the physical onto the digital world.

#### **Chapter 3- Research Approach**

The design development is based both on a synthesis of the knowledge from the literature reviews and precedents of inspirational work in the field as well as being supported by a combination of surveys from street artists and spectators, and a Participatory Need Assessment of the potential users of my project. The method I used was Participatory Action Research, as the nature of the design requires a method which gather preliminary research to form an impression of how people react to street art. Findings from the preliminary research were used to inform a participant need assessment and the user testing of the prototype. Driven and refined by participants through their evolving relationship with the design of the platform in terms of complex negotiation of space. Participatory Action Research approaches the issue in terms of multiple engagement building on the complex situations and designing and implementing the perspectives and the user's interaction in order to adjust and adapt to this new knowledge after reflecting on the process.

#### 3.1 Research Questions

Primary Question:

How can street art be used to stimulate a dialogue between the spectator and artist and thus serve to promote a dialogue in a digital community?

Secondary Questions:

How can street art be used as a point of departure for dialogue between the spectator and artist?

What are the implications for the public space to create street art?

#### 3.2 Research methods

The Participatory Action Research method requires using the research, concept, design and validation to revolve around the participants of the study. Preliminary participants were the spectators or the onlookers of the current physical street art community of Toronto and have a passive relation with the digital community. The participants in the survey and the user-testing can be differentiated from them based on their potential encounter and relationship with the street art as the users of the digital community. Participatory Action Research can be defined as research that helps practitioners to have and to change concurrently the knowledge leading to social knowledge.

The method was used to investigate a complex, social situation, in terms of the negotiation of space, where peoples whose life circumstances do not exist in a vacuum. This is a great need to recognize the public space and the impact of street art in their lives, which is directly involved in the process of actions needed for designing and implementing the change. By considering both sides of the argument and recognizing both the street artists and spectator's perspectives collectively on a mapped community separate from the physical world, the spatial nature of this new digital space is very important in terms of the spectators understanding as potential users both theoretically and through the project of this new space. This digital space is thus a product of their understanding, of the current community and their relation to it.

#### 3.3 Participatory Action Research

Participatory Action Research was first coined by Lewin's "Action Research and Minority Problems" in 1946 as being defined to be a comparative research on the conditions and effects of various forms of social action and research leading to community building. This research method helps practitioners to have and to change concurrently the knowledge relating to social life. (Adelman, 1993)

Participatory Action Research is a qualitative research methodology, which is considered democratic, equitable, liberating, and life-enhancing qualitative inquiry that remains distinctive from other qualitative methodologies (MacDonald, 2012).

This research method is relevant in this thesis as it is helping the spectators, with a sense of understanding and being a part of the building of this digital community through their new knowledge and life experiences of street art of Toronto. This knowledge changes concurrently on the basis of adopting the needs assessment analysis, by involving them as users in the process of construction of knowledge through their interaction and active engagement with the public space and street art of Toronto by gathering data digitally. As it frames and guides research design in communities by understanding the particular situation. In this case it is the negotiation of public space and uses the needs assessment from the spectators to restructure this new knowledge and reflects on the findings, from the surveys to analyze patterns and trends in data collection to design the platform.

An example of a complex case study involves studying the factors that either enhance or impede the success of black youth and thereby have them identify solutions that would be effective in reducing the high dropout rate of black students in Montreal. It has become an increasingly popular and well-established practice around the world, and has been used both in academic and community settings as a way of making the voices of youth more central to research, policy, and community organizing (Livingstone, 2014).

The process that Participatory Action Research follows is divided into four levels. First action researchers use, develop or build on a theory on the process of doing action research. Second the theory in use in action research projects is shaped by the research process, the topic and the reflections of the different users involved. Third the theories are used to speculate on the hypothetical meanings of what the people involved are perceiving and fourth the theory may be shaped by the politics of the empowering nature (Winter, 1998). Rather than identifying a certain culture of a group, this method approaches the study by allowing the participants to embrace their own practical actions and reflect on them once the results of data gathering are mapped onto a digital platform. The outcomes can be analyzed, sorted and navigated through action by the users of this platform. In this way not only does it involve the users to collaborate with the construction of a new community through their continuously evolving knowledge but also reflecting on what needs to be done in order to adjust and adapt to create a direction also known as facilitation at this point of the research. This research method includes a Participant Needs Assessment which report key findings from preliminary research which pervasively involves participants in all phases of evaluation and decision making and that is useful in order to move forward to surveys which selectively show trends and patterns from the selected participants.

### **Chapter 4- Field Research**

To address the Participatory Action research methodology, the process included a participatory needs assessment which would include assessment questions, from the spectators of the local community. The objective was to form an impression of how people react to art on the street in order to distill from these impressions what is useful for thinking about the construction of the online platform where people are actually going to interact with the art rather than just passively being involved as onlookers.

The main focus of field research was on the survey results of artists and spectators of the physical sites of street art of Toronto. It was also important to think about what to do with the information before planning to collect it and before it starts to accumulate. It was essential to understand the relationship of the identified spectators with the street of Toronto community to structure and design a survey which was then used to give in-depth results from both spectators and street artists. The evaluation of outcomes that resulted from this process combined with secondary research via relevant literature review, which guided me in terms of the needs and assessment analysis and ideation for the data gathering tool used to create a platform encouraging street artists and spectators to express their thoughts and interactions with street art, in order to design a platform facilitating a digital community for the active users.

### **4.1 Participatory Needs Assessment**

Participatory needs assessment is a way of understanding the needs of the local population, in order to identify community needs, set priorities and develop an action plan. The overall aim of the participatory needs assessment is to understand the needs of the community from their own perspective rather than from an external view point (Blackwood 2009). Participatory Needs Assessment Analysis focuses on the ends and the outcomes to be attained, rather than the means or the process (Mckillip, 2001).

The need assessment in this study will be done in order to highlight the opinions of community residents of Toronto and their interaction with the street art in public space, as well as spectators' participation and engagement with the street art. It will allow people within communities to give their opinions regarding how they see this digital street art community of Toronto to be structured and take shape. This was done through assessment questions from the participants and analyzing and evaluating them based on the research questions and productively applying them to the design of the surveys. By asking them all a similar set of questions to get a better in-depth analysis of what they thought individually and collectively as a part of the community before moving forward in reporting key findings and that is useful in reporting the main research collected and analyzed from surveys after being approved by the Research Ethics Boar

### 4.1. 1 Data Gathering through Key Informant Street Interviews

Key informant interviews are an essential tool for gathering information from individuals, rather than groups. The individual is selected based on people who have first-hand knowledge on a community level and the interview is normally semi-structured (Dummett, Hagens and Morel, 2013). The questions were to build a discussion around the research of the study, as well as to get their insight and new knowledge of what they thought of the project prototype.

The data was then collected from the spectators using assessment questions to structure the data and analyze the relationship trends between the spectators and the artists and their overall impression of community building. These results were summarized and analyzed to understand this new construction of knowledge of these findings useful for thinking about the construction of the online platform and how they see this new space in the recent light and in terms of a more interactive and engaging community, which caters to what they think the current street art community in Toronto needs to grow and develop into.

The reported benefits of participatory evaluation include clarification of the study addressing the research questions, support for specific decisions and greater understanding of the thesis concepts and perspectives of the stakeholders. In order to analyze results it needs to be broken down and looked at collectively in terms of the assessment questions they were all asked and how their answers varied, were similar or shared commonalities.

Purpose Statement	Assessment Questions	Summarized Findings
The purpose of the this evaluation was to understand the community needs and understanding of street art of Toronto	How do you see street art of Toronto?	Personas either saw street art in terms of context, aesthetics or the medium it used.
	How do you see street art of Toronto in terms of building communities?	The history, mass culture and individualistic factors play a role
Using the knowledge of the key	What are the implications for the	Personas saw the space that the
personas in designing the survey of spectators and street artists.	public space to create street art and how do you see initiatives for and against street art?	street art was occupying and reaching common grounds as both parties expressing and being involved in the process as a solution.
	How do communities connect spectators and street artists in Toronto?	Besides the message being an important factor, it's about interpretation & the response you have if you see something similar.
It was also used to focus on the purpose of a finished project using the ideas and relationship between the artist and the spectator	What is your relationship like with street art and public spaces of Toronto?	For the personas It's about the free and unplanned relationship the art has with the public space and connects with you. Or a piece that grips you emotionally and physically, by identifying with it. Or the story it tells and the inspiration it forms translating on how you see it.

Table 1. Participatory Need Assessment report findings

### 4.1.2 Implementation of Participatory Needs Assessment

By organizing the data in a way that it can be compared and analyzed, the next step was to find key themes and relation with the data, in order to stipulate from it what's useful for the next steps. By addressing the important questions, the preliminary research was able to extract the important information needed to understand community needs, as well as using their knowledge to focus on the purpose of the project ideation and their relationship with the street art.

In terms of how the spectators saw the street art in Toronto, depended on how connected they were with the street artwork either based on the context around it, the aesthetics, the organization of artwork through space and the different mediums and how the interaction between the artist and artwork in a public space. From the results it was clear that it was seen as much more than just a rebellious act, or marking of territories, but rather in terns of how the space is used, what tools are used in the making and what particularly connects the spectator with the street art in terms of what they make of it.

Thus the inability to understand street art comes from the lack of understanding of the space, because there is a gap in the interaction between the spectator and artist.

A conflict arises due to their lack of expression and power of the space it occupies. The solution to this is to give them a platform to express and become

involved in the process. This way the spectators will be able to connect once they have a response or interpretation of what they see. As it was important to establish a relationship with street artwork which is more free flowing and unplanned because of the very nature of the street art. For them it is what story it tells, how it connects with you emotionally and physically and inspiration derived from what you as a spectator see.

This showed a clear need of a platform where the spectators could channel this energy and reflect and express themselves, not just keeping the artwork intact but becoming a part of a new community space. These spectators identified an exciting new way to share not just what they see, but the exciting possibilities of the digital realm which changes the way spectators interact with public artwork. Which is why the next essential step being to carry out a survey on the perspectives of not just how Artists and Spectators see the politics of space but patterns in their attitudes and beliefs which would required in structuring and designing a facilitating platform to involve more spectators and artists in the process of the digital community of street art of Toronto.

### 4.2 Survey from Artists & Spectators

The method most employed in Participatory Action Research are surveys, as they allow the results to show patterns and frequencies and this method summarizes people's opinions across the wider community (James, T. Milenkiewicz, Bucknam, 2008). Which is why this method was followed by the Participatory Needs Assessment as it analyzed the results of the survey and shed some light on the insights generated by the street interviews as no longer just a snapshot of perceptions and ideas of the spectators but a larger picture of what is useful in terms of designing for the digital community.

This required conducting surveys on social media groups Alley Art around Toronto and Toronto Graffiti on Facebook, which is a common place for street artists and street art enthusiasts alike to come together to share their passion of Graffiti and Street Art found in Toronto. This was to get a better understanding of a wide range of opinions and perspectives in terms of addressing the research question, and the impact of street art on the users in terms of community building, as well as analyzing the themes that differentiate street art from advertising and commodification of space. This information will then be used to create a platform facilitating and encouraging a dialogue to come together as multiple engagements as a tool for complex negotiation of space.

### 4.3 Survey analysis

A combined analysis of survey results from both street artists and spectators were gathered, with the objective of analyzing the results in order to reflect them onto designing a platform. This was done in order to highlight and identify areas of relevance that overlap in terms of trends from both street artists and spectators. Especially since the primary research question focuses on how street art can be used to stimulate a dialogue between the spectator and artist and serve to promote a dialogue on a digital space. Both the artists and spectators saw street art in itself either contributing positively to the or it depended on the context but there were no outright negative responses. Which means it wasn't the art form but the space that needed to be redesigned. The mediums of street art ranged from murals, graffiti, and stickers to posters, sculptures and installations, with only one person thinking advertisements were street art. However, even though the majority of the survey participants didn't see advertisements to qualify as street art they did not see advertisements questioning the artistic credibility in public space. There was also a difference in as to what the spectators and street artists thought the context of street art was with the public space. While 36% of people agreeing with the fact it could accommodate social, political, personal expression, artistic and cultural but only 6% of seeing it as commodification of space.

The results of what the community thought of anti-graffiti groups were not surprising, with a large portion of people thinking it's community's way of getting rid of graffiti and the second largest group thought it was government's agenda, while only a small portion of people thought it was a way to constructively use graffiti. The comments for this section also added to a deeper understanding as it was either dependent on where they were located or it was seen as a misunderstanding. 96% of people saw the government and the city programs responsible in encouraging street artists to use the public space, but not as a political tool through advertising agencies. However, for them street art was not being sold out which by definition means artists making money from their artwork, because like any other art, public art is not just there for the purpose of expression itself but as a means to ends for the artist to make a living.

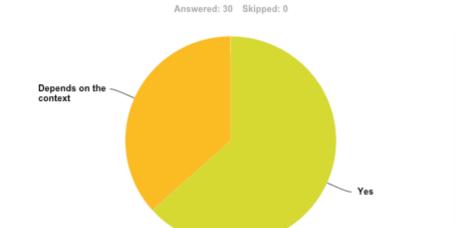
The patterns in the results showed that it wasn't as much street art but the public space and how it was used by street artists that spectators were interested in understanding. The different mediums aided in understanding what they thought was considered street art and by looking at these trends in data closely it was apparent they needed a platform which would facilitate the spectator's viewpoints and give them an active role in this digital community of Street art Toronto.

### **4.4 Survey Results**

# Answer Choices Street Artist Answer Choices Street Artist Answer Choices Street Artist 16.67% Spectator (Onlooker) 7 83.33% 25 Total 30

Figure 1. Survey results: Number of street artists vs spectators

# Do you think street art contributes positively to the society?

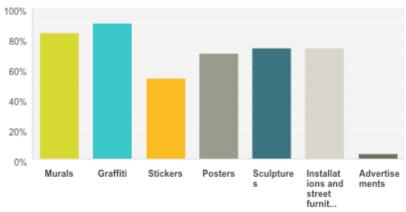


Answer Choices	Responses	~
Yes	63.33%	19
▼ No	0.00%	0
Depends on the context	36.67%	11
Total		30

Figure 2. Survey Results: Do you think street art contributes positively to the society?

# What do you consider to be street art? (Please select all that apply)

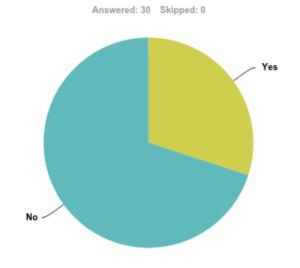




Answer Choices		Responses	7
√ Murals		83.33%	25
√ Graffiti		90.00%	27
Stickers		53.33%	16
√ Posters		70.00%	21
<ul> <li>Sculptures</li> </ul>		73.33%	22
Installations and street furniture		73.33%	22
▼ Advertisements		3.33%	1
Total Respondents	: 30		
Comments (2)			
Showing 2 respons	95		
Live performance/ 3/4/2016 2:21 PM	buskers View respondent's answers		
Stencil 1/6/2016 7:46 PM	View respondent's answers		

Figure 3. Survey results: What do you consider to be street art?

# Do you think advertisements question the artistic credibility in a public space?



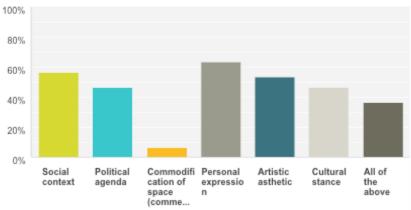
Answer Choices	Responses
Yes	30.00% 9
⊸ No	70.00% 21
Total	30
Comments (4)	

stories might be more	get the feeling that street art shouldn't sell products. Spreading thoughtful ideas and e appropriate, in my opinion. View respondent's answers
	d advertisements I think corporate and mass production whereas urban art is all unique. View respondent's answers
huge bank logo over	alled scotiabank? it takes away from the individual artists being shown, it sucks seeing a art View respondent's answers
sell out	View respondent's answers

Figure 4. Survey results: Do advertisements question the artistic credibility in a public space?

# What do you think is the context of the street art with the public space?





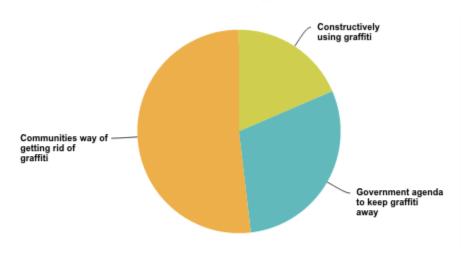
Answer Choices	Responses	
Social context	56.67%	17
Political agenda	46.67%	14
Commodification of space (commercial enterprise)	6.67%	2
Personal expression	63.33%	19
Artistic asthetic	53.33%	16
Cultural stance	46.67%	14
All of the above	36.67%	11
Total Respondents: 30		

non comfromist, anti ageno	da, pure vandlism	
1/17/2016 5:43 PM View	w respondent's answers	

Figure 5. Survey Results: What do you think is the context of street art with public space?

### What do you think of anti-graffiti groups?





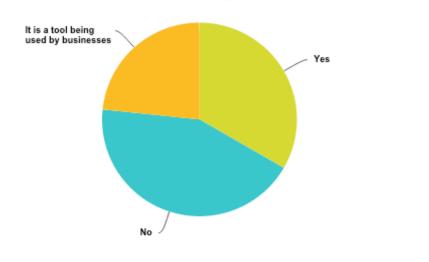
Answer Choices	Responses	~
Constructively using graffiti	18.52%	5
Government agenda to keep graffiti away	29.63%	8
Communities way of getting rid of graffiti	51.85%	14
Total		

Showing 2 responses				
	Depenss on where they are located (suburban or urban) and depends on what kind of graffiti they are agains 1/17/2016 1:10 PM View respondent's answers			
Misunderstanding 1/2/2016 8:32 PM	View respondent's answers			

Figure 6. Survey results: What do you think of anti-graffiti groups?

# Do you think graffiti is getting commodified(commercialized)?





Answer Choices	Responses	7
Yes	33.33%	10
- No	43.33%	13
It is a tool being used by businesses	23.33%	7
Total		30
Comments (1)		
Showing 1 response		
Most likely on some level 1/2/2016 8:32 PM View respondent's answers		

Figure 7. Survey results: Do you think graffiti is getting commodified?

# Do you think the government and the city programs should encourage street artists and the use of public space?

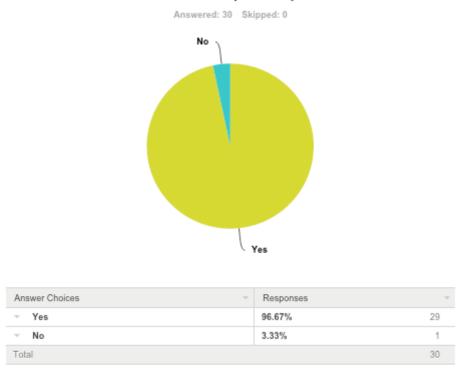
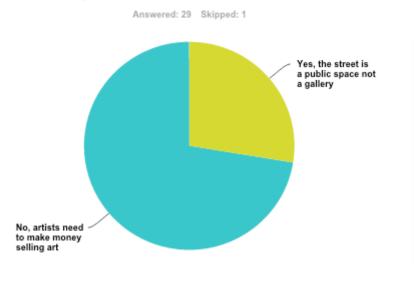


Figure 8. Survey results: Do you think programs should encourage the use of public space by street artists?

### Do you think street art has sold out?



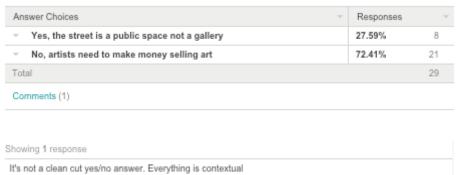
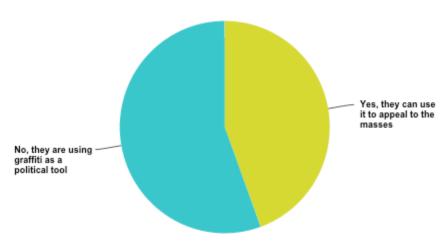


Figure 9. Survey results: Do you think street art has sold out?

1/17/2016 1:10 PM View respondent's answers

## Do you think advertising agencies should be using the public space?





Answer Choices	Responses	~
Yes, they can use it to appeal to the masses	44.44%	12
<ul> <li>No, they are using graffiti as a political tool</li> </ul>	55.56%	15
Total		27
Comments (4)		

### Showing 4 responses

Yes, but only in designated areas, balancing street art with commeral advertising. 3/4/2016 2:21 PM View respondent's answers

Again not a clean cut answer. If agencies are using real street artists and paying them then they are promoting their work as well as whatever is being advertised, which is not necessarily a bad thinb 1/17/2016 1:10 PM View respondent's answers

But if I answer 'no' to this question, then advertisement shouldn't exist at all. In one way or another, advertisment uses public space (billboards and OOH). TV or Radio advertisement also uses 'public space' (at least in the context I come from, where tv and radio station are concessions given by the government). Advertising can coexist with other forms of street art, as long as it is clearly identified as being an advertisement, or have specific public spaces created for advertisment, so the public does not confuse a piece of art with an ad.

1/17/2016 12:35 PM View respondent's answers

Figure 10. Survey results: Do you think advertising agencies should be using the public space?

# Chapter 5- Needs assessment and Ideation

This chapter focuses on the needs assessment and ideation for the platform facilitating a dialogue between the artists and spectators. Encouraging the spectators to engage with public art by getting involved and expressing their love/hate relationship with street art of Toronto. This can be expressed through a visual which can speak a thousand words by just how they choose to capture their voice. A brief overview of the platforms, tools and visualization techniques are discussed to highlight the thought process and ideation behind the facilitation platform for spectators and artists. The project concept discusses the overview of photo-maps features and function as a digital community building tool.

### 5.1 Data tool analysis

Locative social media platforms are generating data, rich in spatial, temporal and social insights. In order to produce and gather rich data an existing platform needs to be selected based on the understanding of how they function and the features they hold. In order to generate constant streams of highly granulated geo-located information and the type of data they generate in order to structure the types of insights revealed from the data. By adding character and depth into a platform which is facilitating the sharing of information and uncovering insight from their minds onto a platform everyone has access too.

### 5.1.1 Flickr

Flickr is an image hosting and video hosting website, also providing web services. In addition to being a popular website for users to share and embed personal photographs, Flickr is effectively an online community. The service is widely used by photo researchers and by bloggers to host images that they embed in blogs and social media (Terdiman, 2004). This platform groups pictures based on the most popular pictures, using tag terms allowing users to indicate what they think of them.

### 5.1.2 Instagram

Instagram is a photo and video sharing, social network for the mobile phone.

Instagram users can take pictures and videos, apply various filters, and share them with their friends on the application or on many other social networks (Frommer, 2010). When sharing a photo or video, users can choose to add it to their Photo Map which is a personal visualization that showcases the users' activity based on geographic data. In this way, a photo that is added to this personal map includes the specific latitude and longitude of the place where the photo was uploaded. The location can then be displayed to other users in a timeline or newsfeed where participants can view photos taken by the users they follow. The Instagram API (Application Programming Interface) allows user generated content to automatically update on the digital platform in terms of legal use of the Instagram APIs and the content is owned by the users not Instagram.

### 5.1.3 Yelp

In contrast to the visual-centric Instagram, Yelp is an online reviews community which started in

2004 as a website that meant to provide its users an online urban guide. From a modest start as an email service for local business recommendations, the platform has grown considerably and was later transformed into a social networking service that receives almost half of its traffic from mobile devices (Brien, 2007). Yelp users are encouraged to check-in to a location and leave a review. The site has pages devoted to individual locations and is usually used in relationship with businesses. However, it is in competition with Foursquare after it introduced the check-in feature. Despite its location based upstarts, Yelp can be categorized as a user-review site. (Ingram, 2010)

### 5.1.4 Foursquare

Foursquare is a technology company that uses location intelligence to build meaningful consumer experiences and business solutions. The Foursquare app helps you discover new places, with recommendations from a community you trust and find a better experience anywhere in the world. By taking into account the places a user goes, the things they have told the app that they like, and the other users whose advice they trust. Foursquare provides recommendations of the places to go around a user's current location. Foursquare featured a social

networking layer that enabled a user to share their location with friends, via the check in (Kincaid, 2008) through which a user would manually tell the application when they were at a particular location using a mobile website, text messaging, or a device-specific application by selecting from a list of venues the application locates nearby.

		Features & Functions			
Data gathering tools	Mobile Platform	Visual(Pictures, Videos)	Social Media	Location	API
Flickr	Yes	Yes	No	Yes	Yes
Instagram	Yes	Yes	Yes	Yes	Yes
Yelp	Yes	No	Yes	Yes	Yes
Foursquare	yes	No	No	Yes	Yes

 $\it Table~2.~Comparison~chart~of~locative~social~media~plat form$ 

### 5.2 User Testing #1

In order to structure the findings of the data gathering from the users, user testing was carried out from of a group of 15 people, which were students of OCAD u Digital Futures program. The objective of this testing was to gather trends and results of the type of data produced and the part they as users played in creating this dialogue with street art of Toronto.

For the first user testing, after doing a Project Concept Overview, the users of platform uploaded their captures directly onto the platform in order to generate data, add art and then attempt to add the data to the platform in the form of location based content to visualize and express.

The overall feedback received was positive. As was the participation and ongoing interest in generating data. Some of the feedback included; deciding which platform is best designed to demonstrate creativity and functions to produce data by the users, and which platform formed an important part of the needs and assessment section of the thesis. This was also important in terms of security, documentation and application programming interface API as it was used to visualize data directly onto a platform. Based on the feedback, for the data to show up on the photo map it required, these were the general findings:

- The user to hashtag the picture with the hashtag #artonstreetartoronto
- For the user to geotag it with a location
- For the users to have a public Instagram in order to access this token and their art on the hashtag
- An identified technical issue was, people couldn't always choose their own digital medium to express themselves and needed that ease of visibility that they had with photos.

### **5.2.1** User Testing #2

The second user testing was done with a more random group of people, which included people on the street art groups, OCAD U and University of Toronto students and they were selected on referral by people aware of the project. This addressed the issues encountered after the first user testing, and observations made based on the engagement of the users and the overall trends. Linking the hashtag and making a public account for testing

- It was able to grab data from anyone, who added a geotag along with the hashtag and wanted to add to the digital community.
- It was also able to grab more pictures once the count of pictures to display on the map was increased to maximum 40 in the code.
- After letting spectators express themselves without defining any
  boundaries or creativity, they were able to express much more diversity in
  results as a result of their personal and cultural understanding with it.

 to facilitating a rich dialogue, was that videos and gifs were now easily seen on the platform and could be added and played and paused on interaction with it.

### **5.3 Project Concept Overview**

The facilitation platform then caters to the identified users of the survey and trends in how they navigate through street art in order to build a platform where people are actually going to interact with the street art rather than passively look at it. This required identifying a locative social media platform through user testing in order to select which tool was would compliment the project concept based on their features and functions.

For this, it was important to carry out a needs and assessment analysis on the platform that would be used to generate data, rich in spatial, temporal and social insights. After an in-depth analysis and identification of the social media platforms, they were narrowed down to two applications; Flickr and Instagram, based on features, usability and the behavior with the participants of user testing.

While Flickr and Instagram both provide features of sharing photos using geotagging, Instagram provides instant social interaction by allowing its users to take pictures and videos and post directly within the application. Flickr, on the other hand, is an online image hosting website which despite having a mobile application lacks in terms of social sharing. In addition to driving engagement within the application itself, Instagram's use of hashtags has become effective in terms of discoverability and engagement. Flickr is a platform for more general discovery rather than specific discovery of specific attributes, and common themes. This gives access to user's data based on commonalities in terms of street art of Toronto further allowing them to define it, based on their creativity with it and engagement in this project.

Instagram was chosen as a data collection platform as it was a social media platform participants were more familiar with and it allowed for a range of visual mediums to be gathered and reflected on. It was not only technically giving users more control, but it also more effective in terms of the features of collectively filtering, but also a data collection platform that already an active part of the user's life. However, as it is a separate platform from the platform I designed, it has different rules about ownership and users need to be aware that although Instagram does not claim ownership of their content, because of its broad license rights by posting content onto this platform you are giving them accesses of using your content for any reason, anywhere in the world or as a part of any third party. It also encourages sharing content on this platform, which could infringe your copyrights on Instagram.

# Chapter 6- Design Ideation & Prototyping

This chapter describes the ideation process of the project, followed by the mapping of the street art around Toronto onto a digital community. This is done by highlighting the evolution of the ideation that led to designing and the visualizing each stage of the process, using feedback from users to improve on iteration in the development of three working prototypes into the successful prototype in terms of participant requirements. After the platform for locative social media was chosen, the next step was to decide what to do with the data, and how to map it out.

### 6.1 Design Ideation

The ideation process started off with a very basic idea of creating an interactive video around street art of Toronto. Based on the stories spectators had with the street art in their everyday journey. However, these spectators could not navigate and explore, the story-telling process hence the core idea was revised to support the engagement and interaction by other users. The redeveloped idea was a result of a brainstorming session with the target audience and experts in the field of technical interaction and engagement, as supported by the research methodology. The idea was to get a platform running for the users to show their direct interaction with the street art. It required taking into consideration, not just the needs and limitations of the end result, but also by using Participatory Action Research. This was done to focus on context specific participation and in

assessing the participatory needs and data gathering, based on the concept of the thesis study. This required voicing the concerns of the users with street art, as well as giving them a platform to engage and express themselves and become a part of a new rich community. To be a part of this new community, it was not important to be physically present in this space but to be able to express and add to this new discourse, based on the new knowledge they had of how street art can be actively used in the dialogue between user of the platform and participants of this study.

Based on that idea and supporting research method, the participants got involved in the process of starting the dialogue and capturing the aura of street art. In this way not only do their actions and reflections improve the process, but they are keeping street art alive through how they see it in this digital space. The next phase in the project was to collect this data, and on the basis of their actions and user testing decide how to best project and visualize this data for it to provide a rich dialogue. After an in-depth needs and assessment analysis keeping in mind the end user, the Instagram platform was chosen, with a new hashtag:

#artonstreetartoronto. The geotags were also an important feature in defining the parameters of people's understanding and what the next step would be in terms of how their perspectives and voices would be visualized. The photo map technique allowed the users to plot the data in a clean and simple layout, which was easy to navigate and see other interactions with the street art in this digital community.

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### **6.2 Technology**

The visualization of this facilitation platform involved several steps in order to get the platform to be live and running. In terms of getting the data gathering, analyzing and visualizing. It initially needed access to the Instagram API platform, which required creating a developer mode. This needed to be registered, authenticated and authorized and then synchronized with the API endpoints. The next step was using a new plugin called Leaflet Instagram which allows you to add Instagram photos and videos to your maps. You can load photos with the Instagram API and add the URL and endpoint to the Leaflet API together with your access token. The final stage was using Mapbox as a mapping platform to integrate location and design data maps into a smooth and real time rendered data. This allows you to control starting coordinates and other user friendly functions and features to improve the user ability.

### 6.2.1 Leaflet

Leaflet is an open-source JavaScript library for interactive maps. It has all the mapping features that were required in developing and programming the platform designed for the web platforms with many interaction features. (Woodruff, Mullins, 2015) In the case of this thesis project, it needed the default views which were: popup opens a mini window of the media object and links it to the location, popup cluster in a far-away zoom level groups pics/videos together if they're

close locations-wise, fancybox opens up the clicked pic in a larger overlay and fancybox cluster similar grouping as with popup cluster but opens up pic in an overlay. These were the tiles formats required in grouping and layout. The Leaflet Instagram plugin made it easier for coding requirements of this project makes it to navigate through data and grabs data directly from the hashtag and make it live based on the geo-tags. It is customizable without even containing a single provider-specific line of code. Also as it supports other providers it allowed control over personalizing the theme of the map using Mapbox.

### 6.2.2 MapBox

MapBox is a mapping platform for developers which makes it easy to integrate locations into any mobile or online application (Lunden, 2015). For this platform MapBox was used alongside Leaflet, as it works well with API tools and after testing out the aesthetics of the underlying map tiles for Leaflet.js it worked with skins and other interaction plugins. MapBox not only allows a better aesthetic choice to photomap of street art but also allow greater control for the spectators to understand the way people move around the city of Toronto with more details in terms of streets and neighborhoods which is an essential part of the project in understanding and facilitating a dialogue visually using geotags.

### 6.3 Prototype # 1

Based on their collective user testing, the first prototype was developed as an initial experiment to investigate users' reaction towards visualizing and generating data. The purpose of the prototype was to see the data come together and to see it automatically generated on a single platform. The feedback from my peers and professors was extremely insightful in understanding the complex negotiation of space by visualizing user generated data however, it still lacked in the terms of engagement and community building. The users thought the data seemed stagnant and in order for it to highlight this relationship on this new platform with coordinates and the visual data coming in to it. It was important to identify this critical feedback which led to the prototype two's ideation of using the non-linear visualization along with geo-location.

DESTINATION: STREET ART

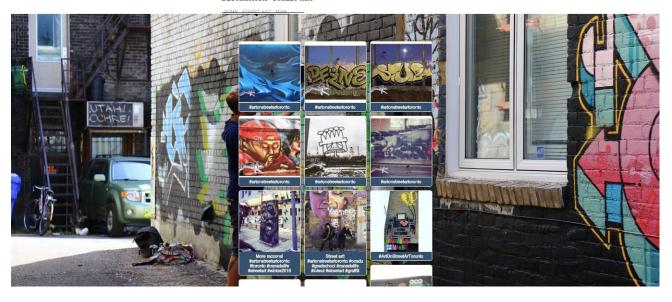


Figure 11. Prototype 1: Platform using social media stream

### **6.3.1 Development**

The first prototype was designed on a website editor called Wix, which used the Instagram feed and Social Media Feed widget to position the data on a platform using a hashtag, but did not do anything with the location aspect nor any other metadata such as usernames or geotags. This basic idea defied the entire point of visualization as it failed to display the data with adequate information. However, it did make users understand what was needed from them in the form of data and creating a visual dialogue.

### **6.3.2 Participant Testing**

Participant 1 is an interaction designer studying at OCAD U. Her participation testing was valuable as she deals with visualizing data and reflecting this data onto an engaging platform. Her insight was useful when it came how to visualize the street art data as she saw Instagram data being visualized on a photo map along different locations on Toronto in a similar way to a photo walk. Giving the spectators as much as freedom as they want in creatively engaging with public art.

Participant 2 is an Information Technology student from York University. The reason for choosing him for testing was because he will be able to give important feedback regarding the interface and control. For him, programming is a mixture of simplicity with user ability and if you give the spectators a practical idea, there is no way they would not want to be a part of it. He sees the project as being successful depending on how many people interact and use it rather than how people use it and for him it would be a successful visualization if it can map several interactions across Toronto.

#### 6.3.3 Overview

Both participants thought the visualization was the key element in this project, and rather than having it visualized across one axis, it would be interesting if it could be mapped out. For them, the data should stand out and be engaging, whether it is in terms of content. The first participant, found the concept of photo walk as an engaging tool to start a dialogue between the spectator with the street art interesting. In the case of the second participant, it would be how the users actually interact with the interface itself.

## 6.3.4 Analysis

It became pretty clear that the concept and the interaction are both important. Not because it has to be complex or a completely new territory, but it can also be a simple interaction. According to the feedback received, it would be a successful model as long as it is engaging and the data is able to be visualized. In this way it would also support the concept of the thesis which is facilitating the ongoing conversation, and thoughts and reflection of the street art in relation to where the actual art piece is located in Toronto. The additional features of the visualization that both participants pointed out through how they interacted with the first prototype and their response to it that they saw it come alive if their engagement with the street art was actually placed onto a map of Toronto. Hence, on the basis of their feedback and analysis,

the next step was to create a rough working photo map using the data from the hashtag #artonstreetartoronto to place their captured data onto the coordinates of Toronto, adding location to the visualization.

## 6.4 Prototype #2

The second iteration of the prototype was created in order to develop and improve upon the first prototype by considering the feedback received from the participants and observations of how they failed to engage and connect with the content on the platform. In order to translate the low fidelity prototype into a medium fidelity prototype, two axes were formed, which were used to contextually place the visual data and the location of art in correlation to one another. The result of this was a simple version of the type of engagement the project would have the users with them contributing to the running and placing the data on the map of the server.

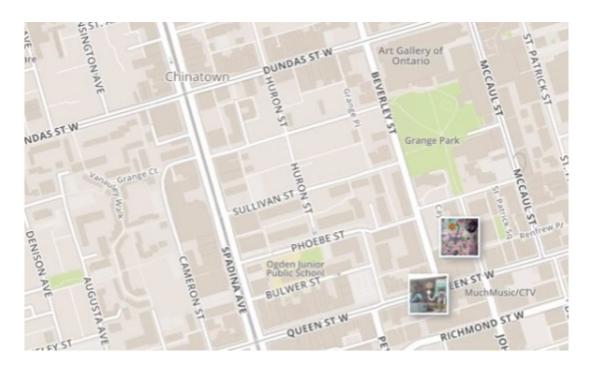


Figure 12. Prototype 2: Low fidelity photo map

## **6.4.1 Development**

The second prototype was a medium fidelity prototype which is programmed using Instagram's API using Leaflet, an open-source JavaScript library which already has a source code in relation to Instagram. This is then configured using the client I.D of Instagram, in order to grab some data directly from the hashtag. The latter portion of the script checks for Instagram access token to authorize and redirect users to the data. Using online libraries on Github, in order to enable it to configure and create an offline second prototype which is functional and allows customization in terms of zooming, grouping, visual elements including the size, font and information.

## **6.4.2 Participant Testing**

Participant 3 is an international student currently studying at OCAD U and residing in Toronto. She is a designer and having her testing out the second prototype was important in terms of aesthetics, design and layout. This prototype was available to her through a local server to her and she had concerns about how much control she would have, how the map would look once it was live, she also thought the layout of the map looked basic and it would look aesthetically better if it was more digitized. An information component to the project for was with the data available and the access she would have with it. For her it was important how the actual images appeared rather than the thumbnails on the map.

Participant 4 is a photographer living in Toronto, a regular user of Instagram and has contributed to the data by capturing street art, captioning and adding geotags to his photographs. He was an important user as he not only added to the platform but he would be a good judge of how the visual elements appear both in terms of the map and the photographs. He found this prototype easy to use and straightforward, in terms of usability. However, out of all the leaflet formats, he liked the clustering option most. He saw it better if the images appeared larger on the map and if they could pop out once they were clicked on, adding perspective and giving them more importance in terms of content.

#### **6.4.3 Overview**

The variations in feedback from the participants, in terms of the design and the usability of the platform, was interesting to see as it was reflected, both in the way they interacted with it, and the feedback they gave and questions they raised. Participant 3 was really eager to see this interface becoming live and having more control over how she chose to interact and explore the content on this platform. She also wanted to see a more digitized map layout (to expand on the nature of the digital community). The layout of the thumbnails for her didn't make as much of a different as compared to how the data looked once it was clicked and expanded. The second participant was a valuable participant as he captures street art and photographs them around Toronto, so he was more familiar with the platform and went straight into how the usability should appear in terms of the clustering, and size of the images to focus on the content as opposed to the map.

#### 6.4.4 Analysis

After analyzing the feedback from the users, it was becoming clear to me that the project and the theoretical context was developing on the same level. The users could also see how the digital community was coming together with the street art of Toronto and the next step was how to share and present this data and platform on a large scale. This would be onto a web platform accessible to the digital citizens in terms of the theme, direction and the dialogue that was being created.

Their feedback was also crucial in the development of the third prototype. The focus of this platform was the concept of the prototype taking it forward from prototype 1 and actually being useable in terms of engagement with the idea. The feedback received from it were questions about the control, aesthetics and the self explanatory nature of the platform. This would be through the themes and the user ability of the interaction the spectators have with it, how it will look like once it is on a touch screen platform and the visual elements of the photographs

## 6.5 Prototype 3

In order to improve on the unsuccessful aspects of the previous prototypes and carry forward the successful aspects of the iteration, prototype 3 was a finished version of a new digital community.

This entailed giving more control to the users in terms of navigation and, which was a concern by participant 3 in the second prototype as to how it will function as a live platform. This identify two important factors, the need for it to be live and the functionality as it stands. The grouping of data coming in from the users was also arranged in an engaging manner.

The purpose of this final prototype was to project the theoretical context and research questions in order to measure how successful the platform was and what the future of this digital community looked like.

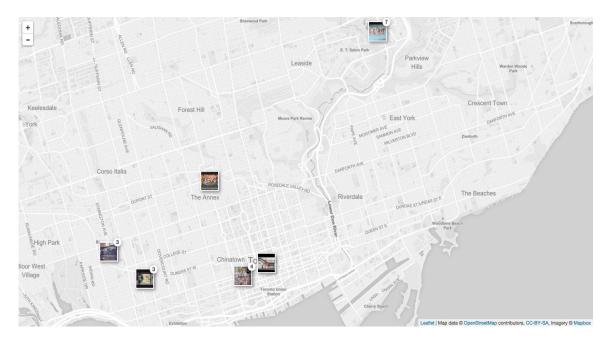


Figure 13. Prototype 3: Destination: Street Art Toronto digital platform

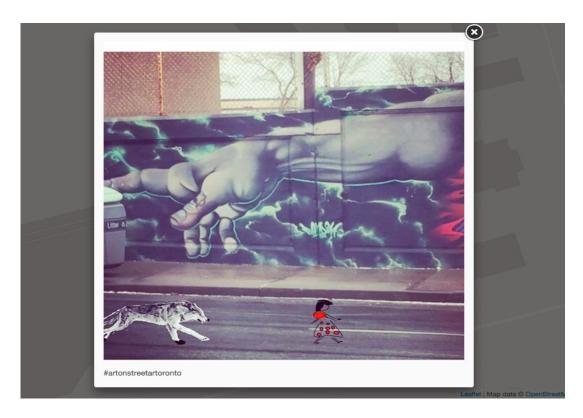


Figure 14. Art on street art



Figure 15. Popup cluster grouping of data on the platform

## **6.5.1 Development**

The development of this web application, required consistency and a world wide web access to the project. This required purchasing a domain to take this local server onto a website. After researching which website building platforms offer customization of webpages, widgets and most importantly a FTP (file transfer protocol) which is required to upload website's files to your hosting account.

Consistency in design the digital brand for the community was needed to translate the aesthetics of this platform by everyone who uses it. This required the use of themes that were applied on the basis of findings of the second prototypes' testing, in recreating the street art of Toronto onto digital experience with the user.

In terms of the final prototyping, it was also important to work on how to show the final design of the platform and it was hence, important to test the third prototype to user test how familiar users were with the touch screen usability verses the point-and-click interface. The design of how the data would look like was brought forward from the second prototype as it worked with the users. This version of the project was a proof of concept that an online community can be successful in sharing reflections and perspectives regarding street art and that it can be refined in the future based on the advancements in technology and change of mindsets and behaviors as a result.

## 6.5.2 Participant Testing

Participant 5 is a graphic designer and specializes in branding and the look and feel of the design, whether this is through a physical platform, or digital one. He was an important participant in terms of testing, as he gave me important insight concerning the future user experience and the practicality he shared with this final version of the prototype. He felt the platform was self explanatory in terms of usability and simplistic enough not to drive the attention away from the focal point. He also the projection of this project making use of the digital and physical something I would like to explore in the future. He liked the design of the map and saw the tiles as being large enough to put emphasis on the posts itself.

Participant 6 is a graffiti artist in Toronto who's dedicated his life to visual art, and has been painting on walls with spray. He has gained international and professional recognition through his artistic journeys as always in search of artistic exchanges, learning and teaching art is part of his life style. He was an important participant for testing, not just because of his background, but also because he was aware of my project since the initial idea and how it changed in idea formation. He found the platform was adding richness to the original graffiti not only to the content, but was excited to see the working prototype in terms of its function and design. He was curious to see how the idea would take life and shape of its own. For him if it can reflect on the nature of street art and keep it alive through the perceptions it will be a successful community.

#### 6.5.3 Overview

The feedback from the participants made it clear that the project had come a long way since the basic idea. It had taken shape of its own and it was clear in terms of the project and the conceptual idea, what was required from the users. The participant testing at this level was focused on measuring the developments from the last prototype, changes and feedback received from the second prototype, and how they were translated into the final project design.

The focus of the participants was now on the platform design, navigation of the website and how the project should be presented and developed in the future. Insight and feedback from a street artist made it possible to think along the lines of how the artists could use this platform to exist along the physical realm, to increase their reach, and spectators' interests in their artwork and enrich the dialogue.

## 6.5.4 Analysis

The feedback received from the users of the final prototype, projected the platform to be seamless and engaging in terms of content generating, navigation and user ability of the final web platform. It also generated a lot of new data and caused spectators to revisit the idea to place their captured street art onto this new platform on the digital map of Toronto. What was interesting was, how users were creatively perceiving it differently not just in terms of function, but also in terms of the aesthetics and ideas. The fact that participants were asking more questions and getting involved in the process was proof of success of the project. It also supported the research questions of how street art can be used in a dialogue between the spectator and artist and thus, contribute to a digital community. Which proved that the project and the context of the study were working simultaneously with each other.

In terms of future goals, the target audience saw the digital community as expanding not just in terms of what is visible, but also the reach of it and having people actively a part of it, with no limits as to what they do with it, how creatively expressive the platform gets through the data coming in, and the way spectators interact with it. It will also be interesting to see if street artists can become a part of it and collaborate on projects using this platform.

## **Chapter 7- Conclusion**

This chapter discusses the future development of the idea behind the digital community. Specifically, this chapter presents the challenges and findings that are anticipated for the next steps and future directions for the digital community, Destination: Street Art Toronto.

## 7.1 Challenges & Findings

This thesis, has been a long iterative journey, which encountered a few obstacles along the way. One challenge was to get spectators to become familiar and engaged in the project. At the same time, it required keeping an open mind about the type of data and visual mediums used to create them. From the user testing of the different versions of the prototype, it was apparent that despite keeping a simple and minimalistic approach with the design and usability of this platform, there are people, who do not know and have the willingness to learn how to use a digital interface, On the other hand, there were some who got distracted and lost in the process of navigation.

Some of the findings that were essential to this project and will be used to reassess the research questions are:

- The traditional and digital world overlap in many areas of interest but at the same time give the users some exciting possibilities to engage and generate data in this new space.
- The public street art of Toronto is being mapped out on a digital domain which transfers ownership from street artists to spectators.
- The users of this new digital space need to be aware of the legalities of ownership of using Instagram to share content, with claims not to own any content they post but having the worldwide license to use any of the content users post.
- With the everlasting nature of this digital platform, it requires endless data to be uploaded and it requires large data storage.
- The platform of this digital community needs to be up to date and have fast updates of new data. Citizens of this new community want a fast and exciting journey with the street art in this space.
- This platform is not an archive of street art but rather a community that
  does not exist in the physical world and captures a new form of
  expression on street art for a new digital community.

## 7.2 Next Steps & Future Directions

The digital community, Destination: Street art Toronto was designed as a web application. This web platform allows users to add their visual data by either overlaying imagery and graphic materials over photographs and videos of street art found in Toronto or adding text to this data as it is used to stimulate a dialogue between the spectator and artist in order to create a digital community. This data is visualized as thumbnail images of their expressive creativity across the X and Y axis of Toronto. It can then be zoomed in to focus on the visual data.

This developed platform can be accessed globally but the dialogue it builds is around the context of the street art Toronto. In order to build an international coherence, I will expand it's reach outside Toronto in the future, in a similar way to the Banksy phenomenon. Banksy is a graffiti artist whose artwork includes work of of political and social commentary and his works has been featured in the streets, walls and bridges in cities around the world. What makes him most interesting is his style of street which is satirical dark humor and the reaction and responses he gets. This platform will require preservation of street art through the perceptions and reactions to them. As a result, this platform needs to be able to encourage users to generate content and engage with it rather than just capture it. In this way it will keep graffiti alive through new ways of seeing it.

Endless possibilities require endless data, which I will proceed to expand on in terms of data storage and randomization of all the data submitted. This will be by expanding its capacity to take more submissions, as a small refresh icon, showing the first 30 visuals and then the next 30 as defined in the Instagram photo gallery view. This will reflect on the nature of street art. In the way walls keep changing, this data will as well as well as, the only difference here being the users' impressions and expressions will keep this digital community alive. This will allow for dialogue between the artist and spectator rather than the conflict of interest and and the allocation of power exercised over space that exists in the physical space.

Finally, through my thesis project I don't just want to capture user's impressions and expressions, but transform the way users see and interact with street art as a part of this new digital space. This will be achieved by giving the users of the platform an opportunity to reimagine the multiple interactions this space has with the community and individuals. I intend to personalize and extend on the engagement of this space with users by giving them a platform which up-dates every few months, with changes in technology, perceptions and users' impressions and expressions. This is important in order to appeal to the younger audience who will take this digital community forward and stay relevant with them as they embrace this space to converse directly on the platform.

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## **APPENDIX**

# **Appendix A- Documentation**

This appendix includes display images of the product Destination: Street Art Toronto



Figure 16: Project Platform



Figure 17: Platform Map

# **Appendix B- Installation**

This appendix shows the installation setup images for the Digital Futures show, Destination: Tomorrow that took place at the Open Gallery of OCAD at 49 McCaul from April 15<sup>th</sup> to April 20<sup>th</sup>.



Figure 18: Digital Exhibition

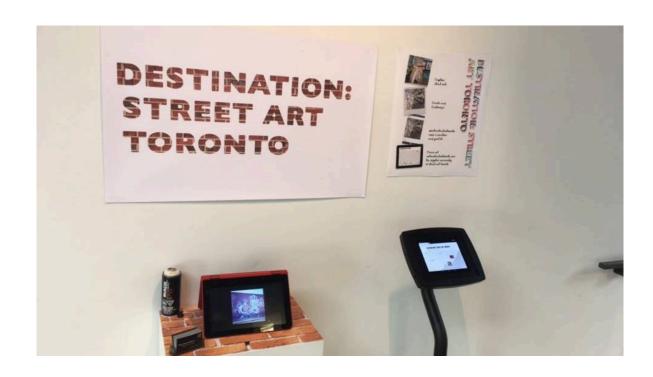


Figure 19: Exhibition Setup

# **Appendix C- Participation**

This appendix includes the post which was shared on a public Facebook group Alley Art around Toronto to encourage submissions and participation in the project.

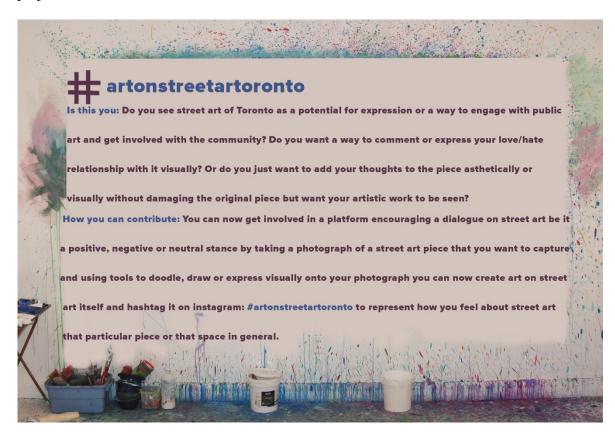


Figure 20: Participation Post