# Understanding Red Hook WIFI through Participatory Action Research





February 2017

#### Author:

Aditi Mehta Doctoral Candidate Priscilla King Gray Center Public Service Fellow Department of Urban Studies and Planning Massachusetts Institute of Technology

#### Digital Steward Community Researchers:

Joseph Alston, Royale Bastien, Jazzhane Cherry, Jacob Gibbs, Eliazar Rivera, Savon Sims Denzel Walker, Javon Webb

#### Contributors:

Jill Eisenhard, Founder & Executive Director Red Hook Initiative

Anna Ortega-Williams, Director of Evaluation and Training Red Hook Initiative

Tony Schloss, Director of Technology Red Hook Initiative

#### Special Thanks:

Jaebi Bussey, Technology Instructor Red Hook Initiative

Greta Byrum, Director Resilient Communities at New America

Sasha Costanza-Chock Associate Professor of Civic Media, Comparative Media Studies, MIT

Dayna Cunningham Executive Director, Community Innovator's Lab, MIT

Alison Hynd, Director for Programs and Fellowship Administrator Priscilla King Gray Public Service Center, MIT

Lawrence Vale Ford Professor of Urban Design and Planning, Department of Urban Studies and Planning, MIT

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## **Executive Summary**

Red Hook WIFI, a project of the Red Hook Initiative's Digital Stewards program, is a community-led effort to close the digital divide, generate economic opportunity, facilitate access to essential services and improve quality of life in Red Hook, Brooklyn via the deployment of a wireless Internet network. The Digital Stewards are a group of young adults from the neighborhood who initially installed and maintained Red Hook WIFI.<sup>1</sup> In partnership with local businesses and residents, Red Hook WIFI is providing free access to the Internet, where broadband adoption rates are lower than the city average. Additionally, each time a user signs on to the network, the splash page displays local events, news, jobs listings and more. This report analyzes survey results from a Participatory Action Research (PAR) project about community perceptions and usage patterns of the Red Hook WIFI network, as well as identifies how Red Hook WIFI could be improved to address community needs. We hope that this collaborative research project also serves as model of how local organizations can facilitate community-run evaluations. The main research questions include:

- Who in the neighborhood is using and benefitting from Red Hook WIFI?
- In what ways are these people using the communication infrastructures?
- How could RHI and the Digital Stewards improve Red Hook WIFI in the future to better address neighborhood needs?

#### Summary of Findings

 The main users of Red Hook WIFI are renters in the neighborhood (NYCHA and non-NYCHA) though approximately 50% of renters and homeowners alike knew about the network before taking the survey. About one quarter of renters who responded to the survey use the network daily whereas none of the homeowner respondents use it daily.

<sup>&</sup>lt;sup>1</sup> Since Red Hook WIFI is mostly built, the Red Hook Digital Stewards now participate in rigorous tech skill trainings. The RHI Digital Stewards spend six months learning technology skills and knowledge (hardware and software installation and maintenance, office technology and software, wired and wireless networking) and media production skills (video production, graphic design, website design, and social media). In their third quarter they choose a set of skills to focus on via community projects, and finally they take part in a 2 month internship at an area business. The Digital Stewards are also provided workplace professional development, leadership skills, public speaking, and educational and social/emotional support via coaching and counseling.

#### <u>Table 1</u>

How often do you use Red Hook WIFI?					
HOUSING TYPE	Daily	Weekly	Once in Awhile	Never	
NYCHA Renters (167   76.2%)	25.5%	16.7%	2.4%	40.0%	17.6%
Non-NYCHA Renters (29   13.24%)	26.7%	6.7%	0.0%	53.4%	13.3%
Homeowners (23   10.5%)	0.0%	27.3%	9.0%	36.4%	27.3%

#### <u>Table 2</u>

Prior to this survey, did you know about Red Hook WIFI?			
HOUSING TYPE	YES	NO	
NYCHA Renters (167   76.2%)	50.3%	49.7%	
Non-NYCHA Renters (29   13.24%)	53.5%	46.4%	
Homeowners (23   10.5%)	52.4%	47.6%	

- The most popular places to use Red Hook WIFI include inside and outside the Red Hook Initiative (95% of respondents have used the service in this location), inside and outside the Miccio Center (55%), Coffey Park (50%), along Lorraine Street (32%), and in Tea Park (20%).
- The four most popular uses (in order from most to least popular) of Red Hook WIFI are:
  - Entertainment (i.e. YouTube)
  - Staying in touch (i.e. e-mail, social media)
  - Finding employment
  - Completing work for one's job
- Men and women use Red Hook WIFI differently. A significantly higher percentage
  of women use the network to complete work for their jobs, to find employment,
  and to finish schoolwork and homework. A slightly higher percentage of men use
  Red Hook WIFI to access entertainment.

#### Table 3

What do you use Red Hook WIFI for? Respondents ranked up to 8 options.				
GENDER	Male (65)	Female (42)		
To complete work for my job	36.9%	50.0%		
To find employment	36.9%	52.4%		
For educational purposes (i.e. school work; homework)	29.2%	42.9%		
For community organizing	12.3%	31.0%		
Staying in touch (i.e. social media; e-mail)	55.4%	64.3%		
Getting news	23.1%	40.5%		
Entertainment	63.1%	57.1%		
Finding Red Hook specific information (resources or events)	10.8%	33.3%		
Other	9.2%	16.7%		

- Residents between the ages of 13 to 30 use Red Hook WIFI the most (See Tables 13 & 14 in Appendix), though the data shows a desire among citizen seniors to learn more about the network and how to use it.
- 54.6% of respondents strongly agree or agree that Red Hook WIFI allows them to be more connected to people, information, and events happening in Red Hook. It is important to note that 40% chose the option "I don't know", which indicates that Red Hook WIFI itself or its overall community benefits/effects remain a mystery to many Red Hook residents.
- According to respondents, the most common sources to get news about Red Hook on a daily basis and during emergencies is from family, friends, neighbors, and social media. This shows that in-person and digital "word of mouth" is how information flows through the neighborhood. Other sources, though less cited, include local schools, local non-profit organizations, flyers, and online news sites (such as the Red Hook Star Revue).
- When asked how the Red Hook WIFI network could be improved to better serve neighborhood needs, the five most common answers included:
  - 1) Install Red Hook WIFI throughout the NYCHA properties
  - 2) Include Red Hook WIFI in stores/my small business
  - 3) Use the network to connect residents to jobs and help them find employment opportunities easily
  - 4) Utilize the network to keep people safe during natural disasters and other emergencies
  - 5) Educate residents about Red Hook WIFI and its potential through neighborhood workshops

#### Implications of Findings

Administering this survey was particularly challenging because respondents were forced to imagine how a community network such as Red Hook WIFI connected one to resources and assets beyond "the Internet for free." What is it about having constant access to the Internet at no cost that is so vital to our productivity and access to opportunities? The survey pushed respondents to ponder this question. The idea of a local network that may or may not provide access to the global Internet is exciting – geographic communities can have autonomous communication infrastructure that create jobs within a neighborhood's economy. However, this is only true if a critical mass of residents understand how community WIFI networks operate because otherwise its purpose gets lost and the network is not used to its full potential.

Members of the first generation of Digital Stewards built the original Red Hook WIFI mesh network but once it was put in place there were few ways for future Digital Stewards to engage with the hardware. This is notable because the Digital Stewards transfer knowledge and information to their peers in the neighborhood, and could help educate residents about the mechanics and possibilities of Red Hook WIFI if continuously educated about the network. Additionally, as Red Hook WIFI grows to expand its reach within the community and serve residents better, it paradoxically moves farther away from its original mission – a self-governing communication infrastructure. Scale and efficiency requires more involvement (and thus compliance with requirements) from local government, service providers, and other partners outside the neighborhood. If the network remains truly community-owned and managed, then the improvement of the infrastructure may come at a slower pace. This tradeoff may be acceptable depending on the overall long-term vision for Red Hook WIFI.

#### **Recommendations**

Given that the City of New York is investing so heavily in the creation of neighborhood networks and Digital Steward programs, the findings have implications for the design and management of such programs.

#### Red Hook Initiative

- Include rigorous, continuous training about Red Hook WIFI for all generations of the Digital Steward program so that participants can educate their peers about the network.
- Train Digital Stewards to build applications for Red Hook WIFI that responds to the findings of this report (i.e. the desire to use the network to connect residents to jobs and help them find employment opportunities easily).
- Allow Digital Stewards to lead neighborhood workshops about Red Hook WIFI to educate and brainstorm with residents about the future of network.

- Assign Digital Stewards the task of building and maintaining a living history of Red Hook WIFI via a Tumblr or blog to document the birth of the network and its various transformation and purposes.
- Consult with community organizers and non-profit organizations in the neighborhood about how the Red Hook WIFI network can aid their social justice advocacy work.
- Continuously re-assess the purpose of Red Hook WIFI and verify that as it expands to serve more, the original goals of the network are not lost.
- Form a Red Hook WIFI advisory council.

## City Officials and Local WIFI Network Partners

- Understand the demographics of the community in which the WIFI network will be built, and uncover the needs of specific populations by sex, age, socioeconomic status, housing status etc.
- When teaching future Digital Stewards in other communities how to build and maintain the neighborhood WIFI network, help participants to integrate other local goals into the overall vision of the network.
- Provide training in research and evaluation so the Digital Stewards can conduct their own analyses such as this one.
- Understand that WIFI networks serve different purposes and that at times these purposes may conflict with one another.
- Be clear about the mission of the network. Is community autonomy more important or efficiency and scale? It may be difficult to achieve both.

## PAR Researchers

- Be clear about what situated knowledge each individual brings to the table from the onset of the research project.
- Before starting, facilitate a conversation in which each research partner identifies his or her goals for the project so everyone can manage their own expectations, but also help one another reach those goals.
- Rely on and trust community partners to lead and strategize the research process because residents know their neighborhood best.
- Create an agreement among all parties about the future and ownership of the data collected, as well as its usage.

## Introduction

The story of Red Hook WIFI begins in 2010, two years before Superstorm Sandy, at the Red Hook Initiative, a youth development organization known locally as "the RHI". Founded in 2002, RHI believes that social change to overcome systemic inequities begins with empowered youth. In partnership with community adults, RHI nurtures young people in Red Hook, Brooklyn to be inspired, resilient, and healthy, and to envision themselves as co-creators of their lives and community. This work is carried out through a pipeline of programs serving youth 14-24 years old. RHI's model of community hiring provides staff and participants close knowledge of the issues facing youth in the community and the ability to find solutions to those challenges together.

While local communication infrastructures such as Red Hook WIFI are seen as an important aspect of disaster management and resilience, this was not the network's initial purpose in the neighborhood. In 2010, young people who frequented the Red Hook Initiative (RHI) created digital stories, wrote Hip Hop and rap together, and wanted to broadcast their creations on a radio station. RHI program staff contacted the Open Technology Institute (OTI), a program of the policy institute, New America, and together came upon the idea to build a neighborhood mesh network to do this. Through this mesh network, it would then be possible for the young people to broadcast their digital stories and music on their own Internet-based radio station, as well as enable RHI to share its resources and opportunities beyond its physical walls. OTI provided a curriculum, equipment, and technical support as well as ran preliminary trainings on building and maintaining mesh networks for the youth, and thus Red Hook WIFI was born.

Today, Red Hook WIFI is part of the Red Hook Initiative's Digital Stewards program, which employs 50 young adults each year from ages 19-24 to build and maintain the neighborhood WIFI network. The program officially began after Superstorm Sandy when the organization realized that the nascent RHI mesh network had sustained the disaster. Mainstream Internet is based on Internet service providers (ISPs), which are rooted in specific, centralized access points. Mesh networks such as the first iteration of Red Hook WIFI, however, connected computers and devices directly to each other without passing through any central authority or centralized organization such as an ISP or a phone company. Instead mesh networks are powered by dynamic connections between nodes, and the only way to shut down the network is to turn off every single node in that network. This is what makes a mesh network stronger than the normal Internet in disaster situations. After Superstorm Sandy, Digital Stewards partnered with local businesses to design, deploy, and maintain the WIFI network.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Red Hook WIFI no longer operates as a mesh network.

These young residents got permission from local business owners and homeowners to install the routers on building roofs. Logging on to the Red Hook WIFI network is free to any user in the neighborhood. Whenever a resident or employee of Red Hook uses the network, its homepage displays local events, new businesses, local news, and other important place-based information. At the time of this survey, Red Hook WIFI was providing 15 free hotspot locations distributed throughout the community and including the majority of public gathering areas in the neighborhood.

The Red Hook Digital Stewards have inspired policy officials to invest in free and low cost Broadband service and similar tech training programs across New York City to foster post-disaster resilience in low-income climate-vulnerable neighborhoods, as well as spur economic development, and decrease the digital divide.<sup>3</sup> For example, Mayor Bill de Blasio has spearheaded an effort to provide free Broadband in all New York City Housing Authority (NYCHA), beginning with demonstration programs in seven developments including the Red Hook East and Red Hook West Houses in Brooklyn, the Mott Haven Houses in the Bronx, and the Queensbridge North and South in Queens. Through the RISE (Resiliency Innovations for a Stronger Economy) competition, the New York City Economic Development Corporation (NYC EDC) has funded RHI to expand Red Hook WIFI throughout the neighborhood by recruiting more small businesses to host routers. Also through RISE, the agency has also funded Resilient Communities, another program of New America, to teach five different community-based organizations in East Harlem, Hunt's Point, Sheep Head's Bay, Gowanus, and Staten Island how to build local WIFI networks and adapt and expand the RHI Digital Stewards program to their neighborhoods.

During the summer of 2016, the RHI program staff, the Red Hook Digital Stewards (specifically generations 8 and 9), and I (a researcher from the Massachusetts Institute of Technology - MIT) co-designed and co-administered a survey in the neighborhood about Red Hook WIFI. The purpose of the survey was to better understand community perceptions and usage patterns of the network, as well as identify how Red Hook WIFI could be improved to address community needs. Our main research questions were:

- Who in the neighborhood is using and benefitting from Red Hook WIFI?
- In what ways are these people using the communication infrastructures?
- How could RHI and the Digital Stewards improve Red Hook WIFI to better address neighborhood needs?

We also aimed to use the survey as an educational tool to inform respondents about the free neighborhood WIFI and its potential for the future if they were previously unaware. This report presents the research process behind the participatory survey as

<sup>&</sup>lt;sup>3</sup> Digital divide is an economic and social inequality that exists between those who have access to and benefit from information communication technologies and those who do not.

well the results and analysis of the data. As discussed above, the City is funding the creation of neighborhood networks and Digital Steward programs throughout NYC, and thus these findings may be useful for implementers and stakeholders of those programs.

The Red Hook WIFI survey project was a form of Participatory Action Research (PAR) or inquiry in which the line between "the researcher" and "the researched" is blurred. The team collaboratively selected the research topic, completed data collection and analysis, as well as decided what action should happen as a result of the research findings. Every participant had an expertise to contribute to the project whether it was an intimate knowledge of the neighborhood, the Red Hook Initiative and Red Hook WIFI, experience as a Digital Steward, or training in research methodology. The benefit of PAR is that it brings together many forms of situated knowledge and lived experience to offer more valid interpretations of information.

## Process & Methods

We completed the Red Hook WIFI participatory survey project in four stages, which include: 1) Relationship Building & Project Introduction; 2) Survey Design & Research Workshops; 3) Pilot Surveys; and 4) Final Launch & Preliminary Data Analysis. These various steps occurred in succession throughout the summer.

#### Relationship Building & Project Introduction

For the month of June, I observed and assisted the Digital Stewards in their work The program is divided into three levels - I) Introduction to Information space. Technology, II) Digital Design, and III) Project Management. The purpose of this observation was to better understand the curriculum and the RHI approach to teaching various technology skills, as well as the participants' relationship with Red Hook WIFI. Most importantly, this time of observation in the workspace gave me the opportunity to build personal relationships with individuals and build trust with each Digital Steward. This is one of the most important aspects of PAR - the presence of strong relationships among all the team members. Since RHI program staff and the Digital Stewards were already close with one another, I needed to use the month to connect with both groups. At the end of June, I gave a short presentation to the Digital Stewards about the Red Hook WIFI project in which we discussed the meaning of research and briefly reviewed an array of methodologies including surveys, interviews, participant observation, ethnography, and visual analysis. I also introduced the group to two Participatory Action Research (PAR) projects: The Public Science Project's Morris Justice Project and 2-Cent Media Collective's New Orleans for Sale. Together, we unpacked what research questions these projects aimed to answer, and then practiced formulating research questions about the Red Hook neighborhood and residents. As each Digital Steward shared their question, s/he also explained what type of method needed to be used to uncover answers. The Digital Stewards asked questions such as:

- What inspires residents to make Red Hook a better place?
- What types of information will the new Red Hook Museum share with visitors? Are residents involved in the planning of the museum?
- How can residents decrease police harassment in Red Hook?
- Who uses Red Hook WIFI?

Using the last question as a jumping point, I asked the Digital Stewards, "What do you all want to know about Red Hook WIFI?" I explained that RHI program staff wanted to conduct a survey in the neighborhood in order to assess their internal organizations goal, which was:

"75 percent of respondents strongly agree or agree that Red Hook WIFI allows them to be more connected to people, information, and events happening in Red Hook." The Digital Stewards used this goal as a starting point to develop their own questions about Red Hook WIFI including:

- Why doesn't Red Hook WIFI always work?
- How can we improve Red Hook WIFI?
- What is Red Hook WIFI's competition for services?
- What types of things do people use Red Hook WIFI for?
- How can we get more people to use Red Hook WIFI?

These initial inquiries helped with the evolution of the survey instrument. After this brainstorm, the Digital Stewards critiqued and improved upon the themes for the survey instrument that program staff has already developed:

#### Awareness

- 1) Do you know about Red Hook WIFI?
- 2) Do you use Red Hook WIFI?

#### Frequency

1) How often do you use Red Hook WIFI?

#### Usefulness

- 1) What do you use Red Hook WIFI for?
- 2) How could we make Red Hook WIFI more beneficial?
- 3) How can we improve Red Hook WIFI?

#### Adoption

1) How could we get more people to use Red Hook WIFI?

Specifically, the Digital Stewards noted that themes do not address troubleshooting – (what does one do when the Red Hook WIFI is not working?) Aside from saving money, how else does Red Hook WIFI benefit the community? We incorporated all of these thoughts into our survey design process.

Since the Digital Stewards are part of a technology training program, not all participants were necessarily interested in learning about research methodology. We discussed other possibilities for involvement in the Red Hook WIFI survey project, which would allow the young adults to use their tech skills. These activities included blogging about the survey project or even producing a mini documentary about the research results, designing and distributing a flyer via social media to inform community members about the survey, as well as online data management through Survey Monkey.

Survey Design and Research Workshops

Throughout the month of July, I met with the Digital Stewards every Friday for two hours to draft and iterate the Red Hook WIFI survey instrument. Between our Friday meetings during the week, I would share the draft survey with program staff who would provide their feedback. In this way, I served as a liaison between program staff and the Digital Stewards as we all co-constructed the survey.

At the Friday workshops, we used theater improvisational games to improve the survey. For example, one Digital Steward would role play as a researcher and another Digital Steward would role play as a respondent. They would perform the survey draft for their peers and assume different types of identities (especially in the respondent role) in order to critique the questions. In another version of this game, participants were allowed to interrupt the performers, and take one of the roles themselves (researcher or respondent) with a different personality to expand the breadth of the types of interactions that may occur when actually in the field. This process was extremely helpful as we were literally able to see how questions could be interpreted differently by specific populations.

For example, in one round of the game, a Digital Steward assumed the identity of an elderly resident who did not understand what WIFI was or how it worked. This forced us as a group to rehearse explaining the network and its purpose. A Digital Steward also pretended to be a business owner who was interested in seeing how Red Hook WIFI would be beneficial to him, and that helped the group articulate ideas about connectivity, revenue, and profit. In another round of the game, participants critiqued a Digital Steward for the way he asked questions. They encouraged the performer to stand straight and speak clearly instead of mumbling. Additionally, the survey included various multiple choice questions, and it was this game that helped us generate answer options that we had not thought of at first.

The second game we used to improve the Red Hook WIFI survey was adoringly called "the question game." Digital Stewards would form a circle and could only speak to ask questions. The first player would get another's attention by making eye contact and if anyone missed the eye contact or responded to the question with an answer, they would be eliminated from the game. Once a person is asked a question, then s/ he would immediately have to make eye contact with another individual and ask a question. This game helped the Digital Stewards practice the art of making eye contact and remaining focused. We would often add restrictions to our rounds such as "only ask questions about Red Hook WIFI" or "only ask questions about being a Digital Steward." This forced us to brainstorm quickly and think outside of the box as we designed our survey.

#### **Pilot Surveys**

On July 16th, we launched a pilot of the survey at the neighborhood event, Red Hook Walks, a street fair along Red Hook's main commercial corridor, Van Brunt Street.



Seven Digital Stewards administered 45 surveys at Red Hook Walks. We debriefed the experience of completing this fieldwork as well as analyzed the preliminary data to finalize our survey instrument.<sup>4</sup> One of the main reflections that the Digital Stewards had was regarding the length of the survey. They worried that people got bored and some would even walk away without answering all questions. Another critical reflection, which I will discuss in more detail in another section of the report, was that the Digital Stewards (mostly African-American and all minorities) felt uncomfortable asking white people to fill out their survey. Therefore, most of the respondents for the pilot were people of color. The Red Hook Walks draft survey included questions about larger communication and WIFI trends in the neighborhood. The Digital Stewards suggested we do this in order to better situate and understand our observations about Red Hook WIFI. We asked people who their service provider was, how much they paid for WIFI, and if they were satisfied with their WIFI. We learned that people paid a monthly average of \$100 for phone and Internet service. While this information was interesting, we realized after analysis, it was not particularly useful in understanding how Red Hook WIFI could be improved, and decided to remove the questions to shorten the survey.<sup>5</sup>

Final Launch and Preliminary Data Analysis

<sup>&</sup>lt;sup>4</sup> For this first round of data collection, I manually entered the completed surveys into Survey Monkey, which quickly generated descriptive statistics.

<sup>&</sup>lt;sup>5</sup> Please see Appendix for the Final Survey.

We officially launched the final survey on August 10th and completed data collection on August 26th. The majority of the surveying was completed on the ground, face-to-face. One of the Digital Stewards also designed a flyer with a link that allowed respondents to complete the survey digitally using a QR reader app on their smartphone (we collected 15 out of 251 surveys through the link).



The Digital Stewards, RHI program staff, and I strategized a location guide and schedule in order to capture a random and representative sample of Red Hook. Two to four Digital Stewards went out surveying every single day for approximately three hours, and visited different locations at various hours in the day. The Digital Stewards' local knowledge of their neighborhood was crucial as we scouted areas for respondents. When we would arrive at one planned address and were disappointed to see a lack of people, the Digital Stewards would act quickly, text their friends and neighbors, and figure out where we could find participants for our project. While we had a guide and schedule for our surveying, we remained fluid and improvised as needed. The purple lines in the map below show our survey paths.



During the first week of surveying, I was on the ground with the Digital Stewards recruiting participants, and during the second week they were collecting data on their own. At the end of each survey shift, I would debrief with the Digital Stewards to understand how to improve our operations for the future. The extreme summer heat was challenging for the team, and we would readjust the schedule accordingly. We would discuss how to address or deal with different types of respondents or inquiries about RHI or Red Hook WIFI. Every surveyor was also responsible for manually entering the data they collected into Survey Monkey. Data entry was a group process so we could troubleshoot how to input information that was confusing or did not make sense to the researcher.

Once data collection and entry was complete, we<sup>6</sup> used Survey Monkey to generate descriptive statistics and spent three days (approximately 9 hours) completing collaborative data analysis. We began this process by reviewing the research terms we learned in July. Together, we wrote all these words on the whiteboard along with their definitions, and used our own Red Hook WIFI project to relearn the vocabulary. Each day, two Digital Stewards were responsible for starting our sessions by explaining a portion of the vocabulary and relating it to their own experiences as researchers in Red Hook.



Since our survey left us both with quantitative and qualitative data, the Digital Stewards split into two groups; one to make sense of the statistics and another to synthesize answers to the open-ended response questions. We used the below guiding questions as we analyzed our data set:

- What have we learned from this data?
- Does this data surprise us?
- How can we use this information moving forward?

Each group had their own shared Google Doc to record their questions, observations, and opinions as they sifted through the abundance of information we collected. After about an hour of working in pairs on this task, the Digital Stewards reported their findings back to the larger team and we often deliberated the many interpretations of the data. The researchers would augment their analyses and opinions with personal experiences in the field and as Red Hook residents.

<sup>&</sup>lt;sup>6</sup> Four Digital Stewards participated in all three days of data analysis.

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In our final workshops, we aimed to explore how data from our survey could help us improve and innovate around Red Hook WIFI. For example, the survey results show that one of the main reasons people use Red Hook WIFI is to search for employment or complete work for their job. Accordingly, each Digital Steward used this information to individually develop and design a prototype for how Red Hook WIFI could better address unemployment or worker productivity in the neighborhood. The Digital Stewards developed their ideas solo for thirty minutes, and then had three minutes to pitch their concept back to the larger team with time for questions and answers from their colleagues. We expanded this activity to think about other neighborhood issues that WIFI could help address such as affordable housing and New York City Housing Authority (NYCHA) maintenance, connecting with neighbors, and disaster preparedness.

## **Reflections from Process**

#### **Digital Steward Researcher Reflections**

Every single Digital Steward who participated in this project described microaggressions they experienced while in the field. There was a clear difference between respondents' attitudes in the "front" of the neighborhood (near the Red Hook Houses) versus the "back" of the neighborhood (near the Pier). While some Digital Stewards attributed this difference in treatment to racism, others theorized that various sections of the neighborhood had dissimilar cultural norms. The Red Hook Houses, Lorraine Street, and Coffey Park are where the Digital Stewards felt most comfortable and described these areas as "friendly." These places are also where the researchers knew the most people.

Surveying along Van Brunt Street where more white residents tend to be, was particularly unpopular among the Digital Stewards. The young researchers repeatedly felt disrespected by white residents, and thus felt uncomfortable approaching them. They described how more often than not, white residents would not allow them to finish their statements and would simply walk away in a rush. Even when surveying within the Red Hook Houses, the researchers avoided white respondents. "They are only walking through here to get somewhere else and are not going to want to be stopped by us," explained the researchers. One Digital Steward described his experience:

What surprised me is how those I approached had different responses. For example, many folks walking on the Van Brunt business strip felt rude and obnoxious while people in the projects jump at the opportunity to get involved. It felt good having people in my community who know me support my work as well.

The relationships that Digital Stewards built with business owners along Van Brunt Street and other parts of Red Hook through Digital Boot Camp, in which they produced marketing videos for the local businesses, were helpful in capturing some white respondents. Pioneer Works, Dolce Brooklyn, and Wooden Sleepers were businesses that the Digital Stewards felt welcome, but still surveying on one's block was the preferred strategy.

#### **MIT Researcher Reflections**

The PAR literature emphasizes that academic researchers and community researchers are completely equal because everyone has situated knowledge that is valuable and needed in the project. While this is indeed true, I believe that the factor that equalizes researchers in a process is the same level of prioritization and commitment to the overall inquiry. However, this can be very difficult to achieve especially when PAR involves young people in a workforce training program with many stresses in their lives. During this Red Hook WIFI survey project, one community

researcher went missing for three days because he was wrongly imprisoned due to an outdated warrant. Another community researcher would at times need to leave abruptly in the middle of data collection or analysis because her childcare fell through. Such circumstances make it impossible for the community researchers to focus on the PAR project in the same way as the academic researcher, thus creating unequal interactions. For example, even though I had the utmost respect for my community research partners, I would often have to take on the role of a boss or authority figure to hold them accountable for high-quality work, which defies the spirit of PAR. When the research project is not initiated by the community members collecting and analyzing the data, it is extremely important for the academic researcher to facilitate a real sense of ownership over the process and results among these community members by allowing the project to iterate accordingly. With regard to the Red Hook WIFI survey project, presenting a clear connection between the neighborhood network and the issues that matter most in the Digital Stewards' lives was key.

I was particularly struck by how enraged Digital Stewards felt by police harassment in the neighborhood. Every Digital Steward had a perspective to share about the topic. Due to the limited timeline and scope of the Red Hook WIFI survey project, we were not able to fully incorporate this issue into our research, but it may have strengthened the Digital Stewards' sense of ownership over the project. Perhaps we could have brainstormed how to use the network to address this problem. I also learned that many of the Digital Stewards saw their training in the program as a ticket to a job and life outside of Red Hook, rather than as an asset for contributing to the neighborhood, which also made developing their sense of ownership over the Red Hook WIFI survey difficult.

## **Results from Survey**

#### The Sample

The Red Hook WIFI survey had 250 respondents who either lived and/or worked in Red Hook of which roughly 54% were male, 46% female, and 1% identified as "other." The majority of respondents, 54% were African-American. Approximately 25% identified as Hispanic, Latino, or Spanish, 15% were White and 2% were Asian. Three percent of respondents were multiracial and 3% identified as Arab or Pacific Islander.<sup>7</sup> According to the U.S. Census, as of 2014, Red Hook had a population of about 11,000 people of which 18% were White, 42.2% were Latino or Hispanic, and 35.5% were Black.<sup>8</sup> Our sample is not completely representative of the overall neighborhood population given the large number of African-American respondents. However, this is the demographic group in which are Digital Stewards had the most social ties and felt comfortable administering the survey. We were not able to capture as many Latino/Hispanic/ Spanish community members because the survey was only conducted in English.

#### Table 4

Characteristics of the Sample				
Sex	Sex			
Men	54%			
Women	46%			
Other	1%			
Race				
African-American	54%			
Hispanic, Latino, Spanish	25%			
White	15%			
Asian	2%			
Multiracial	3%			
Arab or Pacific Islander	3%			
Age				
8 to 12	5%			
13 to 20	20%			
21 to 30	39%			
31 to 40	17%			
41 to 50	9%			
50+ 10%				
Housing Status				
NYCHA Renters	76%			
Non-NYCHA Renters	11%			
Homeowners	13%			

<sup>&</sup>lt;sup>7</sup> In our pilot survey, we asked respondents "What is your race/ethnicity?" and used people's open-ended responses to design the multiple-choice options in our final survey in order to categorize Red Hook's population as accurately as possible.

<sup>&</sup>lt;sup>8</sup> This data was obtained from the Measure of America Fact Sheet from the Social Science Research Council.

Most respondents, about 39%, were between the ages of 21 to 30; 20% were between the ages of 13 to 20; and 17% were between the ages of 31-40. Five percent of people who took the survey were below the age of 13 and 10% were above the age of 50. This age breakdown is actually quite representative of the actual Red Hook population.

Approximately 86.4% of the respondents lived within the neighborhood and the other 13.6% travelled to the area for their jobs. Of the respondents who lived in Red Hook, 76.2% were NYCHA residents, 10.5% were homeowners, and 13.2% were non-NYCHA renters. A little less than half of the respondents, about 46%, work in the neighborhood with the majority employed by local restaurants or non-profit organizations.

#### **Red Hook WIFI**

Before presenting questions about Red Hook WIFI specifically, we asked residents to rate on a scale of 1 (not important) to 5 (very important), how important free WIFI was to them. Seventy-two percent of respondents said that Free WIFI was important or very important to them. The below chart provides insights into why an individual felt WIFI was important or not to them. The selected quotes represent sentiments that were echoed multiple times throughout the surveys. For respondents who did not feel WIFI was important, the most popular answer was that one did not use the Internet or that more important items were needed for free in Red Hook. For respondents who felt that wifi was important, many described how the Internet was access to information. Free WIFI meant this access existed anytime, anywhere, which is especially important for those who cannot afford to pay for the Internet. People also explained how important free WIFI was to find employment and even complete work for one's job.

#### <u>Table 5</u>

On a 5 beir	scale of 1-5, how important is free WIFI to you? 1 being NOT important at all and ng VERY important.
1-2	15.8%
• • •	"I never use the Internet." "There are more pressing things we need for free." "Free WIFI is not safe." "I usually use WIFI to access social media, but that is not a necessity."
3	12.6%
• • •	"I don't know what WIFI is" "This does not really matter to me." "Always working. Don't have time for WIFI." "I believe even though free is good, everyone on the same network will slow it down."
4-5	71.6%
	"People cannot afford WIFI." "It keeps the neighborhood connected." "Wifi is important for job applications." "Helps my employees communicate." "Helps me get information all the time, anywhere." "Helps us accomplish more in the neighborhood." "WIFI is a public good." "To provide free wifi and give back to the community is a positive message to others." "We need to modernize." "WIFI should be free to elders." "WIFI should be free for unemployed individuals" "The means we live by have changed; you need WIFI." "I can play music at community events and play video games outside with my peers." "Everybody is always on the Internet." "Helps me when I am low on data." "More efficiency during an emergency."

About half of the survey respondents, 51% knew about Red Hook WIFI prior to taking the survey. If the participant did not know about Red Hook WIFI, the researcher would present a brief history and provide a postcard with a map that indicated where hotspots were located in the neighborhood. If a respondent did not about know Red Hook WIFI, then they were advised to skip the questions about the service and just

complete the section about communication behavior, information outlets, and the future of free WIFI in the neighborhood. Only 10% of respondents knew about Red Hook WIFI before Superstorm Sandy and about 22% learned about the service during or immediately after the natural disaster in 2012. Sixteen percent learned about Red Hook WIFI in 2013; another 16.4% learned about in 2014; and about 35% learned about it in 2015 or 2016. The two main ways respondents became aware of Red Hook WIFI was either through a staff member of the Red Hook Initiative (35%) or simply through the appearance of the network on a mobile device (28%). Another 12% of respondents heard about the service from someone in the neighborhood not affiliated with RHI and 9% actually came to know about Red Hook WIFI from a flyer.

The most popular places to use Red Hook WIFI include inside and outside the Red Hook Initiative (95% of respondents have used the service in this location), inside and outside the Miccio Center (55%), Coffey Park (50%), along Lorraine Street (32%), and in Tea Park (20%).

However, only 20% of Red Hook WIFI users claimed to log onto it daily, and 40% of respondents claimed they use it "once in a while." In fact, 20% of people who knew about the service never actually use it. The reasons listed for not using Red Hook WIFi included:

- "I already pay for my own data and Internet."
- "Red Hook WIFI often does not work."
- "I don't need it that much"

When respondents did use Red Hook WIFI, they did so mostly for entertainment, staying in touch, to find employment, to complete work for one's job, and for educational purposes.

#### <u>Table 6</u>

What do you use Red Hook WIFI for? (Respondents checked all that applied).			
Entertainment	60%		
Staying in touch (i.e. e-mail, social media)	59.8%		
To find employment	43%		
To complete work for my job	42%		
For educational purposes	34.8%		
Getting news	30.4%		
For community organizing	20.5%		
Finding Red Hook specific information	20.5%		

As discussed previously, one of the main goals that RHI program staff had for the survey was to be able to assess an internal program goal:

75 percent of respondents strongly agree or agree that Red Hook WIFI allows them to be more connected to people, information, and events happening in Red Hook.

Therefore, we asked respondents: "How much do you agree or disagree with the following statement? Red Hook WIFI and the Digital Stewards allow me to be more connected to people, information, or events in Red Hook." People answered as follows:

#### <u>Table 7</u>

Strongly agree	16.7%
Agree	37.9%
I don't know	40.1%
Disagree	3.8%
Strongly disagree	1.5%

While approximately 55% of respondents strongly agreed or agreed with the statement, it is important to note that 40% chose the option "I don't know", which indicated that

Red Hook WIFI itself or its overall community effects remain a mystery to many Red Hook residents.

#### The Future of Red Hook WIFI

It is difficult for people to quickly imagine how to improve a free neighborhood network in great detail beyond hardware mechanics. The most prevalent answers to the question "How could Red Hook WIFI be more useful to you in the future?" were:

- "Put it in the NYCHA homes"
- "Put it in the stores/my own business"
- "Keep people safe in an emergency"

These answers reflect the current buzz or plans around the network, which is probably why they were so common. In terms of disaster preparedness, people did not seem to know how the network could keep them safe in an emergency beyond providing the infrastructure for text and e-mail alerts.

Other answers demonstrated the desire and need for unlimited data. For example:

- "Help makes calls when data isn't available"
- "Can play Pokémon Go all around the neighborhood and watch movies all around the neighborhood without data troubles"
- "Free is good so I do not get charged for data"
- "It would help me not waste all my data"
- "I like creating websites to remote my video game cooperation. I use a hot spot with limited data so free WIFI is a big help."

There was also some awareness that a neighborhood network could serve as a community development tool. Such answers included:

- "Create local applications"
- "It would be useful if it could help me get a job"
- "Have local hangouts in their hotspots and charger ports"
- "Have hot spots that are more scenic to create cool hangouts"
- "Build better communications with others as well as the community"
- "Bring fun and opportunity to the neighborhood"

A handful of answers linked Red Hook WIFI to youth opportunities, and saw the future of the network as opportunity for youth:

- "Make more things for kids to do on WIFI"
- "My kids would have something to do if there was more free WIFli"
- "If free WIFIi were available at my job, then I could bring my kids with me there to do homework"
- "Allow young people to connect more through social media on free WIFI"
- "More games and opportunities for kids"

• "If there was WIFI in the NYCHA homes then kids would stay inside and it would make the community safer"

The last quote was not a common sentiment (it appeared about three times in the 181 responses to this question), but it did stand out to a number of Digital Stewards, who strongly rejected the notion that kids made the neighborhood dangerous and that free Red Hook WIFI would make the community safer. The Digital Stewards did agree that there were several ways that the network could benefit young people and brainstormed these possibilities extensively, which included building a space for young adult Red Hook fashion designers to sell their products or using the network to organize in-person events and parties.

#### Using Data to Innovate Red Hook WIFI

After we finished collecting the data and entering it into Survey Monkey, four of the Digital Stewards used the preliminary descriptive statistics to prototype applications for the network. These applications addressed issues around employment, housing, social connection, and disaster preparedness. This sort of workshop can be used with the larger Red Hook community to help people imagine the possibilities for their network.

#### Table 8

#### **Red Hook WIFI Application Brainstorm**

#### Employment App:

When you are in Red Hook, this app allows you to upload your resume. The Digital Stewards or other employees in the neighborhood would then review this resumes and e-mail the sender a list of jobs in the area that s/he are qualified for based on credentials. Businesses in the neighborhood with openings would pay a membership fee for the match-making service.

#### Housing App:

As you connect to Red Hook WIFI on your mobile device or computer, there will be a NYCHA housing tab in which you can submit questions, grievances, repair requests etc. about your apartment. This information goes straight to NYCHA officials who will be obligated to respond within 48 hours of the request. Perhaps a Digital Steward or another employee in the neighborhood could manage the app and follow-up if the individual does not get a timely response from NYCHA. This app would also allow NYCHA residents in Red Hook to compile and document all their communication with the agency.

#### Meet New People App:

The Red Hook WIFI network should host a site similar to Facebook just for the neighborhood. You can only access the site if you are in the neighborhood logged on to the network. Anybody with an address in the area can create a profile and describe what types of people they are hoping to meet. The app would allow you to see who is near you in the neighborhood and message people. Local businesses may want to advertise on the app as more locals subscribe to it.

#### **Emergency App:**

This would be a messaging service for anyone logged on to Red Hook WIFI. Even if your phone or cable bill was not paid for, you would receive these emergency messages about extreme weather, violence, or other crisis information. The app would be managed by the Digital Stewards, who would craft and deploy messages in times of emergency.

## **Recommendations & Future Research**

The results of this survey show that while residents are excited about and benefit from free Red Hook WIFI, about 50% of respondents still did not know about the network. Awareness about WIFI is likely to grow through the implementation of the RISE grant as more small businesses in the area host routers and benefit from services. Additionally, re-integrating Red Hook WIFI into the Digital Steward program will also increase knowledge of the network as these young adults share this information with peers. In the future, Digital Stewards could build and maintain a living history of Red Hook WIFI to document the birth of the network and its transformation to its various reiterations, expansions, and purposes. Content would take the form of oral histories, interviews, photos, and reporting. This living history could live online through a Tumblr or blog, and new generations could contribute to it to while they are learning various tech skills. This living history would serve as a learning resource for new generations and other communities interested in building their own network.

Conducting deeper demographic analyses to understand how people use or could potentially utilize Red Hook WIFI differently depending on their sex, age, employment status, and location of residence would help the Red Hook Initiative commission, design, and deploy technologies that appropriately serve the diversity of the community (See Tables 9 to 14 in Appendix). This survey project begins to do that, but it may be helpful for the Digital Stewards to host focus groups with different categories of residents to more deeply hone in on specific behaviors and needs. A Red Hook WIFI advisory council representing the interests of these various identities may also be beneficial to guide the future of the network.

Moving forward, RHI staff should work to aid organizers and non-profit organizations in the neighborhood with their social justice advocacy work through the Red Hook WIFI network. If people were able to see how neighborhood WIFI could help them address important issues such as police harassment, mold exposure, or tenant rights, among other causes - the network would be all the more powerful and would allow people to see its possibilities beyond just "free Internet." In addition to the apps described previously, a neighborhood server could store community data.

Lastly, there has been a longstanding debate in academia about the effects of information communication technologies (ICTs) such as telephones, mobile devices, or Internet such as Red Hook WIFI on the concept of community. Advocates of ICTs assert that new technologies bring humans together in communities free from geographic boundaries. In early studies of wired developments (communities with high-speed dial-up in the early 2000s), residents recognized three times as many and talked with two times as many more people, and visited 50% more of their neighbors compared to their non-wired counterparts. On the contrary, critics worry that the increased use of ICTs in society reduces in-person communication and bonding with neighbors and other

community members, diverting individuals from interest, investment, and social interaction in their own physical spaces. Because a person's attention is split between the virtual and physical world, no one is engaged in full proper interaction required for building strong relationships. Where does and will Red Hook WIFI fit into this debate? Its purpose is to intensify in-group communication within a locality, but to also connect users to outside resources. Programs such as the Red Hook Digital Stewards certainly strengthen social ties and the idea of community. However, as the network expands in its reach and strength, the close-knit community that originally built it becomes less important as outside government agencies and service providers become involved in implementation and management. For this reason, RHI staff must continuously re-assess the purpose of Red Hook WIFI and verify that as it expands to serve more, other important facets are not lost.

## Appendix

#### <u>Table 9</u>

What do you use Red Hook WIFI for? Respondents ranked up to 8 options.				
HOUSING TYPE	NYCHA Renters	Non- NYCHA Renters	Homeowners	
To complete work for my job	40.3%	41.6%	60.0%	
To find employment	48.1%	33.3%	40.0%	
For educational purposes (i.e. school work; homework)	36.4%	50.0%	30.0%	
For community organizing	22.1%	33.3%	10.0%	
Staying in touch (i.e. social media; e- mail)	58.4%	91.7%	60.0%	
Getting news	31.2%	41.7%	20.0%	
Entertainment	63.6%	50.0%	50.0%	
Finding Red Hook specific information (resources or events)	22.1%	33.3%	10.0%	
Other	13.0%	0.0%	10.0%	

## <u>Table 10</u>

How do you get your information about events, happenings, and incidents in Red Hook? *Respondents checked all that applied*.

HOUSING TYPE	NYCHA Renters	Non- NYCHA Renters	Homeowners
Family	75.3%	73.1%	77.3%
Friends	81.7%	80.8%	63.4%
Neighbors	60.1%	65.4%%	63.4%
Schools	17.7%	15.4%	22.7%
Non-Profit Organizations	8.2%	15.4%	22.7%
Religious Organizations	3.8%	3.9%	4.6%
Local Businesses	6.3%	15.4%	22.7%
Social Media	33.5%	42.3%	50.0%
Online News Sites	15.8%	7.7%	22.7%
Flyers	19.6%	11.5%	13.6%
Bulletin	5.7%	7.7%	9.1%
Radio	2.5%	0.0%	18.2%
Red Hook WIFI	3.8%	15.4%	4.6%
Red Hook Hub	1.9%	7.7%	4.6%
Other	3.8%	11.5%	9.1%

#### <u>Table 11</u>

In the future, Red Hook WIFI will expand to all commercial streets and parks in the neighborhood, as well as NYCHA homes in Red Hook and New York City. We will be able to design local programs and applications that address Red Hook needs like a digital job board or a neighborhood chat room. In your opinion, how could Red Hook WIFI benefit the community? *Respondents checked all that applied*.

HOUSING TYPE	NYCHA Renters	Non- NYCHA Renters	Homeowners
Increase communication among	28.2%	22.2%	30.0%
neighbors	20.270	55.5%	30.0%
Meet new people	25.0%	33.3%	25.0%
Assist with maintaining relationships	11.5%	14.8%	10.0%
Access online directions	11.5%	18.5%	15.0%
Learn about jobs	34.0%	48.2%	45.0%
Organize around housing issues	18.6%	33.3%	15.0%
Serve as an emergency communication tool during disaster/crisis	23.7%	44.4%	30.0%
Use the Internet for school and education	26.9%	48.2%	30.0%
Help local businesses succeed	13.5%	37.0%	25.0%
All of the above	48.7%	51.9%	50.0%
None	1.0%	7.4%	0.0%

#### <u>Table 12</u>

In the future, Red Hook WIFI will expand to all commercial streets and parks in the neighborhood, as well as NYCHA homes in Red Hook and New York City. We will be able to design local programs and applications that address Red Hook needs like a digital job board or a neighborhood chat room. In your opinion, how could Red Hook WIFI benefit the community? *Respondents checked all that applied.* 

GENDER	Male (119)	Female (105)
Increase communication among neighbors	31.9%	25.7%
Meet new people	27.7%	23.8%
Assist with maintaining relationships	10.1%	12.4%
Access online directions	12.6%	13.3%
Learn about jobs	39.5%	30.5%
Organize around housing issues	18.5%	20.0%
Serve as an emergency communication tool during disaster/crisis	24.4%	28.6%
Use the Internet for school and education	28.6%	28.6%
Help local businesses succeed	20.2%	12.4%
All of the above	49.6%	51.4%
None	1.7%	1.0%

#### <u>Tables 13 & 14</u>

What do you use Red Hook WIFI for? Respondents ranked up to 8 options.							
AGE	8 to 12 (8)	13 to 20 (29)	21 to 30 (43)	31 to 40 (17)	41 to 50 (5)	51 to 60 (5)	61+ (1)
To complete work for my job	0.0%	34.5%	48.8%	64.7%	40.0%	20.0%	100.0%
To find employment	0.0%	37.9%	53.5%	58.8%	20.0%	40.0%	0.0%
For educational purposes (i.e. school work; homework)	12.5%	27.6%	37.2%	52.9%	20.0%	60.0%	0.0%
For community organizing	0.0%	13.8%	20.9%	47.1%	0.0%	20.0%	0.0%
Staying in touch (i.e. social media; e-mail)	12.5%	72.4%	58.1%	82.4%	40.0%	20.0%	0.0%
Getting news	0.0%	20.7%	37.2%	52.9%	20.0%	20.0%	0.0%
Entertainment	100.0%	48.3%	70.0%	58.8%	20.0%	40.0%	100.0%
Finding Red Hook specific information (resources or events)	0.0%	13.8%	20.9%	35.3%	40.0%	20.0%	0.0%
Other	0.0%	10.3%	16.3%	0.0%	40.0%	20.0%	0.0%

In the future, Red Hook WIFI will expand to all commercial streets and parks in the neighborhood, as well as NYCHA homes in Red Hook and New York City. We will be able to design local programs and applications that address Red Hook needs like a digital job board or a neighborhood chat room. In your opinion, how could Red Hook WIFI benefit the community? *Respondents checked all that applied.* 

AGE	8 to 12 (3)	13 to 20 (48)	21 to 30 (89)	31 to 40 (39)	41 to 50 (22)	51 to 60 (17)	61+ (7)
Increase communication among neighbors	0.0%	27.1%	29.2%	33.3%	40.9%	17.6%	14.3%
Meet new people	0.0%	33.3%	29.2%	15.4%	31.8%	11.7%	14.3%
Assist with maintaining relationships	0.0%	8.3%	13.5%	10.3%	4.6%	11.7%	28.6%
Access online directions	33.3%	16.7%	9.0%	12.8%	13.6%	5.9%	28.6%
Learn about jobs	33.3%	39.6%	37.1%	30.8%	54.6%	0.0%	28.6%
Organize around housing issues	0.0%	20.8%	21.4%	18.0%	22.7%	5.9%	14.3%
Serve as an emergency communication tool during disaster/crisis	0.0%	27.1%	23.6%	25.6%	45.5%	17.6%	42.9%
Use the Internet for school and education	0.0%	37.5%	24.7%	30.8%	31.8%	17.6%	28.6%
Help local businesses succeed	0.0%	16.7%	12.4%	23.1%	18.2%	11.7%	57.1%
All of the above	66.7%	45.8%	48.3%	59.0%	36.4%	76.5%	42.9%
None	0.0%	2.1%	2.3%	0.0%	0.0%	0.0%	0.0%



#### Surveyor Name:

Place of Survey: Time of Day:

#### Introduction

Red Hook WIFI is a community wireless broadband network that provides Internet access free to users within Red Hook, Brooklyn. The network facilitates access to jobs, education and other opportunities while also functioning as a local resource for news and information through its online portal, redhookwifi.org. The Red Hook Digital Stewards are conducting surveys to better understand community perceptions of Red Hook WIFI and how to improve the network. We have 14 hot spots in the neighborhoods and more are coming soon.

#### Before We Start...

 Do you live in Red Hook? Please circle yes or no. Yes | No

Circle the one that applies to you:

Red Hook Houses (NYCHA)

Own private house / apartment

Rent private house / apartment (non-NYCHA)

 Do you work in Red Hook? Please circle yes or no. Yes | No

Circle all that apply to you:

I work at a store/restaurant

I work at in manufacturing / a warehouse / a garage

I work as an independent artist

I work at a Red Hook nonprofit

I work at a Red Hook school

I am currently unemployed

Retired

Other:\_\_\_\_\_

#### **Red Hook WIFI**

1. On a scale of 1-5, how important is free WIFI to you? 1 being NOT important at all and 5 being VERY important.

1 2 3 4 5

Please Explain:

2. Please circle Yes or No. Prior to this survey, did you know about Red Hook WIFI? Yes | No

# If you answered No to question 2, and have never heard of Red Hook WIFI, please skip to the section "The Future of Red Hook WIFI."

1. When did you find out about Red Hook WIFI? Please circle one answer.

Before Superstorm Sandy (2011-2012) During / immediately after Superstorm Sandy (2012) 2013 2014 2015

2. How did you find out about Red Hook WIFI? Please circle one answer.

Flyer Someone from RHI RHI Email RHI Social Media Someone not from RHI told me about it Appearance of network on a mobile device At RHI after Superstorm Sandy

- 3. Where do you primarily access Red Hook WIFI? Please rank up to 5 locations in order of frequency: ranging from most often (1) to least often (5).
  - \_ Coffey Park
  - Lorraine Street
  - \_\_\_ Red Hook Initiative (indoors)
  - \_\_\_ Red Hook Initiative (outdoors)
  - \_\_\_ Miccio (indoors)
  - \_\_\_ Miccio (outdoors)
  - \_\_\_ Van Brunt Street
  - \_\_\_ Valentino Pier
  - Clinton Street
  - \_\_ Tea Park
  - \_\_\_ Library
  - \_\_\_Added Value Farm
  - \_\_\_\_ Visitation Street
  - Other:
  - \_\_\_ I do not own a phone, tablet or computer
  - I do own a phone, tablet, or computer, but do not access it because \_\_\_\_

4. How often do you use Red Hook WIFI? Please circle one answer.

Daily	Weekly	Monthly	Once in Awhile	Never
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- What do you use Red Hook WIFI for? If you are going to choose more than one answer, please rank in order of use: ranging from the most often (1) to least often (8).
- \_\_\_ To complete work for my job
- \_\_\_\_ To find employment
- \_\_\_ For educational purposes (i.e. school work, homework)
- \_\_\_ For community organizing
- \_\_\_ Staying in touch (i.e. e-mail, social media)
- \_\_\_ Getting news
- \_\_\_ Entertainment
- \_\_\_ Finding Red Hook specific information (resources or events)
- \_\_ Other: \_\_\_\_\_
- 6. How much do you agree or disagree with the following statement? Red Hook WIFI and the digital stewards allow me to be more connected to people, information, or events happening in Red Hook.

Strongly agree	Agree	l don't know	Disagree	Strongly disagree

Can you please explain or provide examples?

#### The Future of Red Hook WIFI

- 1. How do you get your information about events, happenings, and incidents in Red Hook? Please check all that apply and list examples.
  - Familv Friends \_\_\_ Neighbors Schools \_\_\_\_\_ Non-Profit Organizations Religious Organizations \_\_Local Businesses \_\_ Social Media (Facebook, Twitter, Instagram, etc.)\_\_\_\_\_ \_\_ Online News Sites\_\_\_\_\_ Flyers (List Location)\_\_\_\_\_ \_\_\_Bulletin Boards (List Location)\_\_\_\_\_ Radio (List Stations) \_\_\_\_\_ \_\_ Red Hook WIFI Red Hook Hub \_\_ Other:\_\_\_\_\_
- 2. How do you get your information about Red Hook during a crisis (ex. Superstorm Sandy, blizzard, violent crime, etc.)? Please check all that apply and list examples.
  - \_\_\_ Family
  - Friends
  - \_\_\_ Neighbors
  - \_\_ Schools\_\_\_\_
  - \_\_\_Non-Profit Organizations\_\_\_\_\_
  - \_\_\_ Religious Organizations\_\_\_\_\_
  - \_\_ Local Businesses\_\_\_\_\_
  - \_\_ Social Media (Facebook, Twitter, Instagram, etc.)\_\_\_\_\_
  - \_\_ Online News Sites\_\_\_\_\_
  - \_\_\_ Flyers (List Location)\_\_\_\_\_
  - Bulletin Boards (List Location)
  - \_\_ Radio (List Stations) \_\_\_\_\_
  - \_\_\_ Red Hook WIFI
  - \_\_\_ Red Hook Hub
  - \_\_ Other:\_\_\_\_\_

In the future, Red Hook WIFI will expand to all commercial streets and parks in the neighborhood, as well as all NYCHA homes in Red Hook and New York City. We will be able to design local programs and applications that address Red Hook needs like a digital job board or a neighborhood chat room.

- 3. In your opinion, how could Red Hook WIFI benefit the community? Please check all that apply.
  - \_\_ Increase communication among neighbors
  - \_\_\_ Meet new people
  - \_\_\_ Assist with maintaining relationships
  - \_\_\_ Access directions online
  - \_\_\_ Learn about jobs
  - \_\_ Organize around housing Issues
  - \_\_\_ Serve as an emergency communication tool during disaster/crisis
  - \_\_\_ Use the Internet for school and education
  - \_\_\_ Help local businesses succeed
  - \_\_\_ All of the above
  - \_\_ Other: \_\_\_\_\_
  - \_\_\_ None
- 4. How could Red Hook WIFI be more useful to you in the future?

#### Demographics

1. What is your gender?

Male		
Female	)	
Other:		

- 2. What is your race/ethnicity?
- 3. How old are you?





February 2017