To: NYC Council - Committee on Technology &

Subcommittee on Zoning and Franchises

From: Noel Hidalgo, Executive Director of BetaNYC

Re: **Oversight hearing of Internet Master Plan and Resolution T2020-6730**

Tuesday, 13 October 2020

Important quotes to note from the Internet Master Plan:

"The private market has failed to deliver the internet in a way that works for all New Yorkers. Citywide, 29% of households do not have a broadband subscription at home. The same percentage of households are without a mobile broadband connection."

"...more than 1.5 million New Yorkers – have neither a mobile connection nor a home broadband connection"

"City has determined that universal broadband calls for an open access fiber optic infrastructure built out to nearly every street intersection with an aggregation point in every neighborhood."

BetaNYC's Testimony:

BetaNYC is a civic organization dedicated to improving all lives in New York through civic design, technology, and data. We envision an informed and empowered public that can leverage civic design, technology, and data to hold government accountable, and improve their economic opportunity.[1]

BetaNYC is oriented around four digital freedoms. The first is the Freedom to Connect. Seven years ago, we stated that *high-speed bi-directional internet* is a prerequisite for full participation in our digital era.[2][3]

After seven years of experimentation and three "broadband for all" announcements/reports, we're excited to see the City publish its first "master plan".[4][5][6]

---

[1] https://beta.nyc/about/

[2] http://nycroadmap.us/#connect

[3] http://nycroadmap.us/#7

[4] https://www1.nyc.gov/assets/cto/#/project/internet-master-plan

[5] https://www.bloomberg.com/news/articles/2015-04-21/bill-de-blasio-wants-broadband-access-for-all-new-yorkers-by-2025

[6] https://statescoop.com/universal-broadband-new-york-city-announces-search-for-partners/

TODOY, *high-speed bi-directional internet* is as important to New York City as the subway or electricity was in the 20th century and fresh water was in the 18th century. For too long, we've seen arguments for broadband framed under the "economic development" banner. The pandemic has pulled back this charade.

Just as the yellow fever epidemic of the late 1700s drove the city to start a public health department and invest in a municipally funded water supply, the COVID-19 pandemic is making us rethink our infrastructure and address centuries of inequity.[7][8]

For the last six months, we've lived, learned, and loved online. We are completely dependent on high-speed bi-directional internet at our homes and in our pockets.

As part of our partnership with the Department of Education, we facilitated the hack league academic competition that engaged 254 students from 42 middle and high schools in six events. They built 61 data driven solutions to their community issues. In total, 2,270 students and 181 teachers participated in the pre-competition phase. The pandemic cut short our in-person competition and we were forced to host the final competition via virtual meeting tools.

When we went on PAUSE, BetaNYC was in the middle of our 6th Civic Innovation Fellowship (CIF). This program bridges digital and data literacy gaps with CUNY Service Corps students. Without high-speed internet, it would have been impossible to provide emotional and moral support for our fellows. We helped them navigate the trauma the pandemic created in their academic, personal, and professional pursuits. Additionally, we dedicated all of our technological resources for our Fellows to continue their virtual learnings. Our 6th cohort successfully completed their assigned projects and graduated in May 2020.[9]

Over the summer, we ran our organization and programming virtually. This included a virtual summer Fellowship program. We formalized our Apprenticeship program, and hired two recent CIF graduates to replace two outgoing apprentices.[10]

Our Staff, Apprentices, and Fellows help Borough Presidents, Community Boards and NGOs address their data and analytical needs. We have built a digital and data literacy curriculum to specifically address difficult & complex data needs which we call Research and Data Assistance Requests (RADARs). From March 15 to October 1, 2020, our staff, fellows, and apprentices addressed 25 RADARs across the City.[11]

In March, we ensured there was a continuity of government operations by researching and coaching 16 community boards and one Borough President to adopt virtual meeting practices

---

[7] https://ny.curbed.com/2020/3/19/21186665/coronavirus-new-york-public-housing-outbreak-history
[8] https://www.cfr.org/blog/viral-justice-interconnected-pandemics-portal-racial-justice
[9] https://www.youtube.com/watch?v=bTcbHQ4i9X4
[10] https://beta.nyc/2020/08/14/intro-to-the-apprenticeship-program/
[11] https://beta.nyc/products/research-and-data-assistance-requests/

and Zoom. In the course of seven days, we developed context specific training materials, and hosted trainings with community board staff and members.[12] This material eventually became the foundation for the City's own training material.[13]

Also during the PAUSE, reliable retail information on Google Maps and Yelp became unreliable and inaccurate. In response, mutual aid and community groups started crowdsourcing information and providing up-to-date information about essential services. BetaNYC built multiple "open maps" in partnership with nine community organizations across Manhattan, Brooklyn, and Queens.[14][15]

These maps immediately met the needs of elderly and immunocompromised neighbors' — we provided information about special store hours, accessibility, and delivery options. At their height, maps were receiving thousands of unique visits per day. Each map/partnership continues to evolve into a platform of hyper-local geographic information that local partners are maintaining.[16]

The past six months are a testament to the need for *high-speed bi-directional internet.* Our city needs a robust digital backbone that is ready for the 21st century. **BetaNYC agrees that we MUST invest in this opportunity and build a public network for the 21st century and beyond.**

Does this NYC's Internet Master Plan get us there?

That answer depends on four things:
1. digitally literate elected officials and government staffers,
2. non-greedy corporations,
3. a public that can hold the two accountable, and
4. the collective stamina to sustain the investment while undoing centuries of inequity.

What good is a network if no one can use it?

For the past seven years, BetaNYC has built an interlocking set of programs that bridge the digital divide. All of these programs are struggling to survive. The City Council's digital literacy initiative funding has always been low. This year, initiative funding was cut from $3.76 million (FY20) to $2.12 million (FY21). This funding helped ensure CUNY Service Corps students could continue their digital literacy development while training community boards in the fundamentals

---

[12] https://beta.nyc/2020/03/26/virtual-meeting-support-for-community-boards/
[13] https://beta.nyc/products/virtual-meeting-support-for-community-boards/
[14] https://beta.nyc/2020/05/13/announcing-essentially-open-north-brooklyn/
[15] https://beta.nyc/2020/04/09/community-crowdsourcing-of-essential-food-and-services/
[16] https://beta.nyc/products/open-maps/

of digital and data analytics.[17] Our Civic Innovation Fellows program is currently on hold because of these cuts.[18]

CUNY, one of the City's greatest equalizers, lost more educators to COVID-19 than any other academic intuition in the nation[19] and is facing a loss of $64 million in tuition revenue.[20]

As part of the 2018 - 2019 school year, the Department of Education reached a record number of Computer Science for All (CS4ALL) students.[21] BetaNYC was part of that historic effort and gave every Computer Science student an opportunity to learn municipal data.[22] Now, the CS4ALL program is wrestling with unprecedented budget cuts.

The pandemic has articulated a clear need for public education in virtual meetings.[23][24]

Back to the future?

We've seen multiple universal broadband proposals from this administration – 2015, 2017, and 2018. **Without a doubt, we need universal broadband for all**.[25][26][27] With an unprecedented commitment of capital funds, we hope to finally see movement on previous plans.[28]

We continue to have reservations about this Mayoral administration's ability to focus and execute this vision. This Administration has had a revolving door of technology leadership. We've had three DOITT commissioners, three CTOs, one interim CTO, and the creation of a number of Mayor offices related to digital things scattered across the Mayor's offices.
Now, we're 14 months away from a new Mayoral administration and this is a massive plan. **How does this plan ensure oversight from one administration to another? How does this plan**

---

[17] https://beta.nyc/programs/civic-innovation-lab/
[18] https://beta.nyc/apprenticeship-program/
[19] https://www.insidehighered.com/news/2020/06/23/cuny-system-suffers-more-coronavirus-deaths-any-other-higher-ed-system-us
[20] https://www.teenvogue.com/story/cuny-budget-cuts
[21] https://www.amny.com/education-2/record-number-of-students-receiving-computer-science-education-doe/
[22] https://beta.nyc/2019/05/02/first-city-hall-hackathon/
[23] https://www.crainsnewyork.com/op-ed/democracy-got-boost-virtual-public-meetings-during-pandemic
[24] http://greenpointstar.com/pages/full_story_landing/push?article-The+days+of+Zoom%20&id=27725267
[25] https://www.bloomberg.com/news/articles/2015-04-21/bill-de-blasio-wants-broadband-access-for-all-new-yorkers-by-2025
[26] https://statescoop.com/universal-broadband-new-york-city-announces-search-for-partners/
[27] https://www.crainsnewyork.com/article/20180319/ENTERTAINMENT/180319908/spectrum-cable-facing-1-million-fine-loss-of-nyc-franchise
[28] https://statescoop.com/nyc-commits-157-million-internet-master-plan/

make sure City assets are not undervalued? How do we ensure that equity and justice are baked into this plan?

Good things in the Internet Master Plan:

- It lays out a clear picture on how to use municipal infrastructure and capital to build a network for the 21st century.
- It is filled with open data! The city should ensure that the proprietary data is converted to open data.

The not so good things:

- The CTO coordinates strategy, oversight is in the hands of DOITT, and implementation is vague.
- **The cost of the master plan is massive and doesn't give a comprehensive method to pay for it.** This report says it would cost $2.1 billion to wire up Manhattan and the Bronx, with a combined population of 3 million. The report then outlines it would cost $1 million to $24 million per neighborhood for the rest of the 5 million New Yorkers, "assuming a backhaul connection to the internet is available at an existing aggregation point." At $12 million per neighborhood tabulation area (195 NTAs), that is an additional $2.34 Billion. At the high end ($24 million per neighborhood), that would be $4.68 billion. **The cost of the master plan is somewhere between $4.44 billion to $6.78 billion.**
  - To put this in perspective, the rebuilding of LaGuardia Airport is estimated to cost $8 Billion.[29]
- Since 2016, the city has stood up a number of experiments but never seems to convert those experiments into comprehensive programs. How is a larger, more comprehensive program going to get us there? Since Superstorm Sandy, RISE:NYC has struggled to bridge the digital divide. Why are we not looking into all of the programs this report has laid out and evaluated their effectiveness? From my interviews, those programs have struggled to find sustainable resources. Why are we not finding ways to fund and expand proven programs?[30]
- Neighborhood Tabulation Areas leave out public spaces like the City's Parks, Governors, Wards, and Rikers Islands.
- The Internet Master Plan should have been published in HTML, not a PDF. Many of the endnotes and footnotes are buried or don't have functional links. If this whole document is about accessibility to knowledge, it falls short in its user experience. (Btw, the same thing goes to City Council discretionary funding documents. Please stop posting PDFs.)

Let's talk about the resolution?

---

[29] https://en.wikipedia.org/wiki/LaGuardia_Airport#Reconstruction
[30] http://rise-nyc.com

Most of this testimony is written in absence of a clear understanding as to why the attached resolution (T2020-6730) is being introduced today.[31] If it wasn't for a colleague asking questions about the resolution and getting an email from Committee Council, I would have missed this hearing.

Asks of the Administration:

- Make the Internet Master Plan a signature focus of the last 14 months of the de Blasio administration.
- Ensure that franchise profits support digital literacy programs. As part of the MacBride Principles clause, we need to ensure that (#7) training programs are developed for youth and families who find themselves on the wrong side of the digital divide.
- Currently, franchise agreements are in PDFs and do not have searchable text. Please change this.
- There should be a database of franchise agreements that can be searched via machine readable text.
    - Additionally, this database of franchise agreements should provide transparency around services provided.
    - The public should be able to see the quality of service rendered, cost per megabit, timeliness of installations, AND most importantly, how they are honoring the MacBride Principles.
    - There should be an annual report / data table that outlines internet service providers in the City, their service catchment area, rate of service, and quality of service.

31

https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4658697&GUID=1B1FC91C-7AF8-4D79-8E6D-BF665CA0B6E3&Options=&Search=