August 14, 2024

Dear Colleague,

For the past seven weeks, six intelligent and dedicated young Bostonians have asked some hard questions about two topics. One is artificial intelligence: how does it influence our day-to-day lives? What do the people that work and live in Boston think of it? What is the City of Boston's *plan* for moderating AI? The second topic is digital equity: who has the ability to navigate and learn about technology in general and AI specifically? How does this divide present itself and how can it be countered? They asked these questions and sought the answers in their capacity as interns in *What The Tech?,* the summer program run in partnership by Northeastern University's Boston Area Research Program (BARI) and Tech Goes Home (TGH), a local nonprofit focused on digital access across Massachusetts. Additional input and guidance was given by the Boston Public Schools and the City of Boston's Department of Innovation and Technology.

These interns came to this program from different neighborhoods and by different paths. Some are veterans of our after-school spring workshop of the same name, while others came to us through the internship application process of Northeastern University's Community-to-Community (C2C) Summer Youth Jobs Program. They hail from neighborhoods as widespread as Roslindale, Roxbury, Dorchester, Chinatown, Charlestown, and East Boston. What united them was a dedication to the work in front of them.

Using different pieces of artificial intelligence and digital equity legislation from both the federal level and from state governments ranging from Massachusetts to California, the interns looked at their bill's goals and objectives, as well as the background of the underlying issues before wondering how this all might look (or already looks) in the city they all call home. The center of this work was an online survey that was distributed to individuals who live and work in Boston. This survey was developed and distributed by the interns themselves and has received a response rate that far exceeded even our loftiest expectations.

Now all that hard work has materialized in two ways. One is a collection of individual formal reports, which you now hold in your hands. The second is a series of slideshow summaries of those reports that was presented at the BARI office on Wednesday, August 14, 2024. Whether you have seen one or both of these, the interns and the rest of our team invite you to keep them in mind going forward. A radically transformative technology like AI only comes by once in a lifetime, so making sure it is applied and introduced in a way that benefits the many and not the few is of critical importance. The young people of the *What The Tech?* program assuredly understand this. Now they ask the rest of us to do so as well.

Sincerely,

Gregory Zapata
Program Manager for Public Education
Boston Area Research Initiative (BARI) – Northeastern University

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DaQuan Liang
Affordable Broadband Access

Background

–Why are you interested?

- I was interested because of my hobby. I like playing video games, and video games require the internet. And if you want to play video games smoothly, you would want a smooth and fast internet speed. That's why I chose my broadband bill.
- I do understand that the internet is not only for video games but also for a lot of other things as well, as I have used it for education, work, etc. The internet has been around for a long time and it is still used now for many purposes, but not everyone has access to it, which I think is interesting.

–How did it come about?

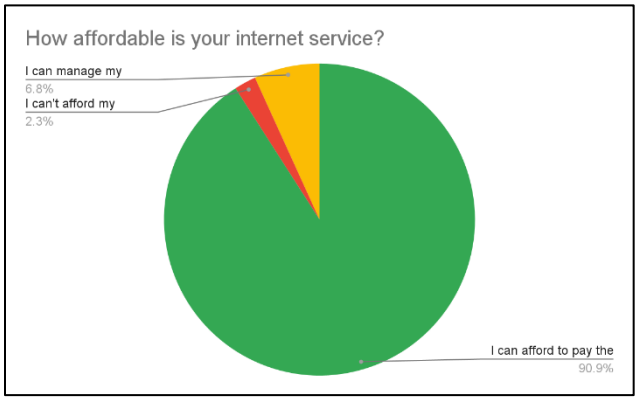
- From what the bill says, I believe that they are focused on digital equity. They are trying to give out discounts to low-income families and households for their internet so that they can afford their internet more easily. So that they can get more opportunities for themselves, their daughter, or their son.

–Who is benefiting or might benefit?

- This bill is specifically stated to make the Internet more accessible for low-income Californian households. It gives out discounts for their internet. This might be similar to the ACP (Affordable Connectivity Program), the program offers a $30 discount on their internet service for the people who participate in the program, if their internet service is lower than $30, they get free internet.

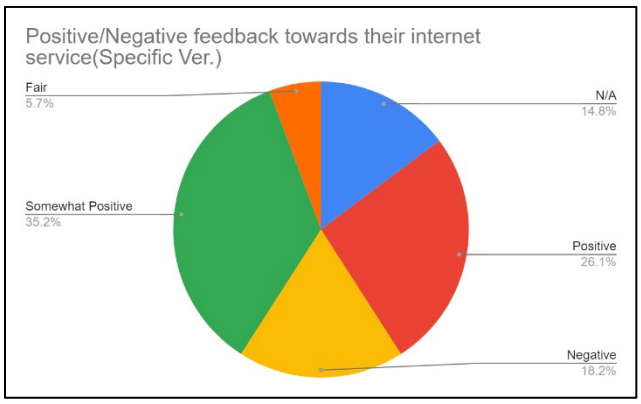
Summary of Data

–Key Points:



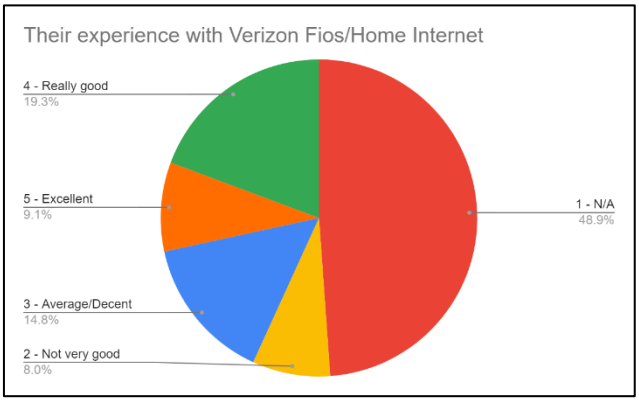
- Most people can afford their internet at full price.

- Starry Internet is not a popular choice among my respondents.
- About 90% of the respondents did not benefit from any discount services for their internet.
- Around 44% of the people responded they had a positive or somewhat positive experience with their internet service.



–Trends:

- Verizon and Comcast Xfinity are the most popular among respondents, but Comcast Xfinity stands out with the highest familiarity—only 20.5% of respondents lack experience with it, compared to over 45% for other providers.

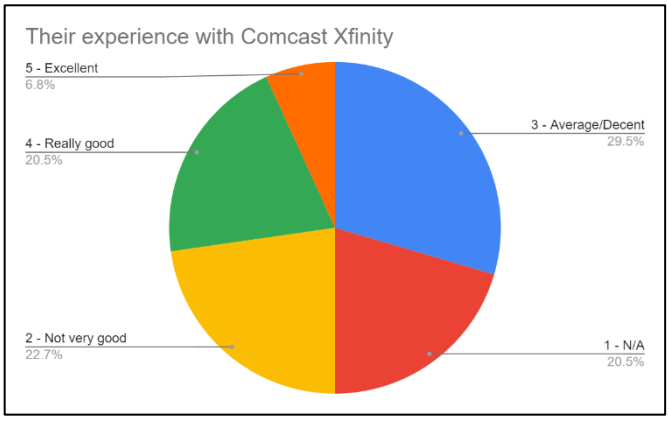


- Nearly 61% of respondents had positive feedback about their internet service. However, 35.2% of those with positive reactions noted that their experience could be improved or had minor complaints.

Policy Suggestions

–How could this be applied to Boston?

- There is already the same program (ACP) that is currently in Boston. Unfortunately, ACP has ended due to insufficient funds and they are trying to bring it back. This is the ACP that is in Boston: https://www.boston.gov/sites/default/files/file/2022/07/Affordable%20Connectivity%20Program%20(ACP)%20English.pdf



- Other companies and service providers also do discount programs. Many service providers like AT&T, Verizon, Comcast Xfinity, and more, provide discounts for their internet service as long as the families meet the requirements to get that discount. These are some of the companies/service providers that offer discounts on their internet:

https://www.highspeedinternet.com/resources/are-there-programs-available-to-help-make-internet-service-more-affordable

–If it is already being applied, what could be changed?

- Changes I would propose are the areas that they can give discounts to, have more companies doing discount programs, and make the discount programs more noticeable
- This will allow thousands, if not millions, to access the internet and find the information or opportunities they need.
- The discount can save you a lot of money, especially if you have a low-income

William Liang and Amira Beriane
Telehealth Coverage and AI

After the COVID-19 lockdown, telehealth services have become core extensions of hospitals, providing virtual healthcare and a more timely diagnosis. When we realized Greater Boston's telehealth systems saw less usage despite its proven effectiveness, the question came to mind: What drove patients to stray away from telemedicine?

Throughout the summer, we surveyed over 100 Boston residents about their opinions on current telehealth services. More than 80% (40/49) of respondents left a positive impression on previous e-health experiences, with over 50% (46/91) feeling comfortable with translative AI assisting doctors in diagnoses. However, locals felt greatly concerned with service affordability.

We propose a remote, AI-assisted diagnosis system—implemented in the websites of these local hospitals, which could help patients receive immediate care along with aid for doctors during appointments. We plan on using a generative Artificial Intelligence algorithm, which would take a patient's symptoms in a real-time conversation, providing great convenience for both doctors and ill subjects. While language barriers cause reliability on bilingual doctors or translators, an AI-diagnosis system could allow convenience for all language speakers. By transferring local medical systems to a modern digital-world, we would make telemedicine accessible to everyone by bypassing language barriers at a lower cost.

In no way, do we hope to change the structure of medical services and what these hospitals provide for our communities. Our goal is to extend their services and make them more accessible, the systems that we turned to when we fell ill. Nonetheless, Artificial Intelligence comes with its flaws. Slang and words that have multiple meanings may be mixed up in translation and transitioning into a new operating system dependent on technology will be hard to trust for patients accustomed to traditional services. However, with the help of those in power at City Hall and tons of training with translative AI, we believe we can make a smooth and easy transition for these hospitals, maintaining an accuracy of around 95% for translation (similar to Google Translate).

If successfully implemented, we could increase productivity, efficiency of diagnoses, expand recognition of local hospitals, and include a more diverse community, unrestricted from those who only speak certain languages. Thank you for your time and consideration.

Fathia Shodeyi

AI, Telehealth, and Interpretation Services

Background:

This bill addresses the need for telehealth services to be as effective as in-person healthcare, which is a key concern for ensuring equitable patient access. It emerged from the need to standardize telehealth coverage and addresses issues such as insurance limitations and additional charges. It also mandates interpreter services for non-English speakers and those who are deaf/hard of hearing during telehealth consultations to be covered by insurers. The bill empowers healthcare agencies to decide if telehealth meets the necessary quality standards. This will benefit patients by reducing barriers to access and ensuring consistent care. The bill promises improved access, efficiency, and equity in healthcare delivery.

Summary of data:

This data set contains survey responses between July 2024 to August 2024 from over 150 Boston residents about their experiences with Telehealth. A similar pattern between the inconveniences experienced when attending in-person doctor visits is shown in the presented data. The data suggests several ways that the implementation of telehealth can improve the medical field.

Policy suggestions:

- Updating policies and informing Boston residents about their expanded telehealth benefits.
- Launching outreach programs that do public seminars educating residents
- Partnering with local interpreter services to provide language support for non-English speakers and individuals who are deaf/hard of hearing during telehealth appointments
- Train Boston-based healthcare providers and agencies to assess and offer telehealth services that meet the same quality standards as in-person care
- Setting up mobile telehealth units or community telehealth centers to reach those who are most in need.

Lucy Osowiecki
Digital Equity and Broadband Internet Connectivity

This bill is for expanding broadband internet access and will provide financial assistance to residents who can't afford existing services. This bill targets families that have students enrolled in grades k-12 and automatically qualifies individuals receiving public assistance benefits. These eligible individuals receive vouchers of $50 each which can be used for many technological advancements that they may need in their household or everyday life.

The goals that this bill may have include providing Massachusetts with better digital equity which inquires that everyone gets equal opportunities in technology and it can also help get rid of the digital divide. The digital divide, which is the gap between those who have access to the internet and those who don't, is a recurring issue in certain neighborhoods and areas and this program is aiming to get rid or help close that gap.

I'm interested in this bill for a number of reasons. For me, I find that it's unfair that people don't have access to the internet or technology because they can't afford it therefore they don't have the same connection to the people and the world around them as the people who do have access to computers and the internet. Many people would benefit from this bill and I would like to see this bill in action and maybe see it make some people's lives a little better or easier.

In the first question of the survey I noticed that most people said that they strongly agree to all of the four statements that were provided to them. Most of the respondents can access the internet, can afford the internet, have a reliable internet connection, and are comfortable using technology. There were only 3 or 4 people saying that they strongly disagree with all of these statements but those people still show how some people still don't have the best connection to technology. I noticed that the statements "I can afford my internet" and "I have a reliable internet connection" had the least amount of people saying that they strongly agree. These two statements show the digital divide more in that it's showing that some people can't afford their internet and some people don't have a reliable internet connection.

In my open response question I asked "Do you think digital equity can be improved? Explain your answer.". The respondents mostly said yes, some of them said they didn't have enough information to answer the question, but none of them said no. The questions that said yes had very valid reasons to why digital equity can be improved. Some of these reasons were that wifi can be expensive, many Boston community members don't have access to technology, and access to the internet is usually a basic need. Through all of this, it's showing that the internet is mostly needed for everyday life and some people don't have access to it because of affordability issues which shows why the program that this bill is providing is so important.

For my policy suggestions, I created a list of three things. The first one was to communicate towards eligible communities making people aware of the bill. With this you can use different communication channels including through schools and social media. One of them was giving

people who are affected by this bill guides to technology and the internet can help them get started and help so if they had any questions for how to use the new technology that they can now afford they have guides to help them. The last one out of the three was to establish a data collecting system on the number of residents served and the outcomes it had on these residents so we can know if the program had a positive effect on the communities and areas involved.

Brave Arimah

Federal AI Literacy and Legislation

Introduction

H. R. 6791 (better known as the Artificial Intelligence (AI) Literacy Act of 2023) is a bi-partisan bill that concerns enhancing AI literacy for all Americans. It amends the Digital Equity Act of 2021 (which states that the digital divide is an extension of wealth and income gaps) to include AI literacy education. By using competitive grants to increase funding to public schools, higher education institutions, and local libraries, Americans will be able to learn more about AI as it grows in education and the workplace.

I gained interest in analyzing this law because it was a federal law in comparison to the other laws which were state and local laws. I like to analyze on the macro scale, and while state and local laws are just as important as federal laws, they don't offer the chance to do the analysis I wanted to do with the federal law.

Over the course of about four weeks, I designed a short survey that noted people's jobs, how much they knew about AI, and their biggest concerns about AI. The results of this survey was to further influence what ideas I had for a comprehensive AI policy for the City of Boston.

Data and Analysis

About 135 people responded to my section of the survey.

When asked about their profession, about 20% of people said they were a student or a researcher. Other notable jobs included urban planners, education workers, and nonprofit professionals.

Computer usage was near-universal when asked. The figure to the right of this text shows so - approximately 98% of people asked used a computer very often. The only people who did not answer "Very often" were retired.

The figure to the left of this text shows people who were concerned about their industry or their role in their industry being replaced by AI. Most people were not, though a sample of people who did answer with highly concerned and extremely concerned showed that their jobs ranged from digital marketing to case management.

To the right of this text are results from a question asking about AI in relation to privacy and security - about 55% of all respondents said they were highly or extremely concerned about AI potentially mishandling information like names, addresses, bank account info, etc.

Also of note is the fact that about 27% of the people who selected highly or extremely concerned were people of color, a demographic historically underrepresented in technology-

based events and surveys. Profiling by AI can be incredibly harmful, especially to those who already have highly negative stereotypes about their demographic identity; AI has the potential to buy into those falsehoods while being trained on data sets.

Most people had a moderate amount of concern when it came to AI manipulating their work, be it for training purposes or for the use by some other person. This is especially seen in jobs based off of the arts; a surveyed artist said they were extremely concerned about AI manipulating their work.

Lots of people had concerns about the consistency of artificial intelligence. While this survey did not ask for further explanation, a common reason for this high amount of concern could be the fact that artificial intelligence is new and already shaping the world around it despite coming into the mainstream in the early 2020s.

Potential Solutions

We are still in a very lawless period when it comes to artificial intelligence. Many surveyed about AI said they knew a moderate amount, but not too much about AI. When asked what they did know, some people said they read articles, some are learning through their job, and one well-versed person had their killer robot dog do the survey for them.

Here are some potential solutions to try and build a way to get people to learn about AI while also keeping people safe:

Opting in to AI instead of having to opt out of it

Transparency in AI's data collection process

Mandatory deletion of identifying data

Instead of competitive grants for public schools, directly set aside money to be distributed directly to them

Competitive grants can still be granted to private universities and companies

Extension of fraud and identity theft law to include AI usage