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THE DIGITAL DIVIDE
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INTRODUCTION

In 2020, the University of Texas at San Antonio conducted a study analyzing access to technology and reliable internet in San Antonio. They found unequal access to such digital resources was highly correlated with household income and educational levels. Additionally, the **digital divide** is more pronounced in areas that already experience gaps in health insurance, employment, life expectancy rates, and many other areas related to quality of life. The divide between urban and rural communities is particularly wide (Reddick et. al., 2020). This study — and many others — expose the fact that access to technology is highly unequal, a startling realization for a world so reliant on technology and the internet.

As of 2021, only 57% of households earning less than $30,000 had access to **broadband** internet at home, compared to 92% of households earning $75,000 or more (Pew Research Center, 2021). Those with disabilities, who live in a rural area, or who are older will also face higher barriers to using the internet. These inequalities have consequences for education, job opportunities, healthcare, and other critical building blocks of American society. Especially as the COVID-19 pandemic pushed schools online and moved staff to attend remotely, people with a lack of access to broadband and the devices required for such a transition fell behind in schooling and job opportunities. Clinic appointments, therapy sessions for mental health, addiction recovery resources, and many other forms of healthcare were moved online (Benda et al., 2020). These critical resources continue to transition from in-person to online, yet the digital divide remains. As Senators in the Commerce, Science, and Technology committee, you will be tasked with addressing this divide and building consensus around increasing access to crucial digital resources.

Broadband – *high-speed Internet access that is always on and faster than the traditional dial-up access*

EXPLANATION OF THE ISSUE

Historical Development

While the calculator was once a novel invention and the telephone was considered a miracle, people are now accustomed to holding the entire internet in their back pocket. The internet has entirely revolutionized all aspects of American society, in many ways for the better. However, with this new resource comes a new divide between those who have it and those who do not.

The evolution of the internet and technology changed the education system in ways past generations could not predict. Traditionally, classes were held in a physical classroom with a teacher and a textbook. Then schools slowly transitioned to Chromebooks, digital resources like Quizlet, and learning platforms like Khan Academy. On top of these changes, the COVID-19 pandemic transitioned the entire nation to remote learning. Though the world has slowly transitioned back to in-person instruction, such resources continue to be used in a learning setting. All digital resources rely on accessible broadband, and those without it fully engage in a classroom setting in the same way their peers might. Thus, broadband greatly influences a student's ability to succeed in the modern classroom.

Healthcare has also changed, with appointments, consultations, therapy sessions, and other forms of medical help transitioning online. Similar to the impact technology has had on education, the physical doctor's office may slowly be replaced with a Zoom waiting room. Telehealth is becoming more popular since a meeting with a professional is just a few keystrokes and a couple of minutes away. However, while this convenience makes healthcare more accessible to those without cars or a way to travel to a doctor's office, those without broadband or devices remain without access.

In its first year (2013), Zoom had totaled 200 million meeting minutes. Now, Zoom hosts on average 3.3 trillion meeting minutes annually.

Scope of the Problem

Access to broadband, devices, and technology affects education, healthcare, and countless other aspects of American society. The divide between rural and urban groups is especially pronounced. Increasing broadband access, whether through **privatization** or governmental efforts, has proven difficult. As delegates of the Committee on Commerce, Science, and Transportation, it is your responsibility to understand how modern technology influences the lives of everyday Americans and the hurdles that come with potential action.

Privatization – *The transfer of a business, industry, or service from public to private ownership and control.*

Education

As of 2021, between 9 and 12 million students lacked broadband access sufficient for online learning (Lieberman, 2021). Especially as a result of the COVID-19 pandemic, there has been an effort made by public schools to provide internet to students, however, these efforts have not been fully successful. In 2021, in a survey of 900 schools, 70% stated that they provided home internet to students; that number dropped to 45% just a year later (Prothero, 2022). While students are transitioning back into in-person learning, there is still a dependency on accessible broadband to submit assignments online, attend virtual classes in the case of "snow days" or other weather events, engage in online tutoring, etc.

CARES Act – A $2.2 trillion bill signed into law in 2020 in response to the impact the COVID-19 outbreak had on the American economy. Also known as an economic stimulus bill.

The COVID-19 pandemic built partnerships between school districts and internet providers, as well as produced federal COVID relief aid, some of which was put towards broadband and technology access for students. The **CARES Act** passed during the pandemic provided funding to state governments for "navigating the impact of the COVID-19 outbreak." Many states used this funding to deploy broadband for students. For example, Ohio used $50 million of its CARES Act funding to fund its BroadBand Ohio Grant, which provided hotspots and devices to low-income students (The Pew Charitable Trusts, 2020). However, funding from the CARES Act and many other policies has somewhat dried up, leaving many public schools without the resources to fund home internet for students in need.

Healthcare

In 2018, 2.4% of enrollees in large employer health plans had used a telehealth service at least once (Rae, 2021). Just three years later in 2021, 37% of all adults used telemedicine within that year, reflecting an explosion in telehealth use during the pandemic (Lucas, 2022). Online health services are increasing in popularity, yet unequal access to broadband and differences in digital literacy and implementation have persisted. In a study of older patients, Choxi et. al found that "the most common barrier cited by patients (67%) was lack of confidence and skills with [video visits] technology" (Choxi et al., 2022). As telehealth services continue to increase in popularity and allow better access to health services, broadband, adequate technology, and digital literacy are necessary to unlock the full potential of this new form of health care.

Urban vs. Rural

One of the most enduring aspects of the digital divide is the gap in access between urban and rural communities. As of 2021, "rural adults are less likely than urban adults to own traditional or tablet computers" (Vogels, 2021). As education, healthcare, and other aspects of daily life are moved online, such gaps may affect those

living in rural environments disproportionately more. As was seen through the pandemic, online resources are critical to continuing education at the elementary, middle school, and high school levels. Yet, without access to broadband and technology, these resources are underused in rural communities in times when they are most needed.

Congressional Action

In November 2021, President Biden signed into law the bipartisan HR 3684, the Infrastructure Investment and Jobs Act (IIJA), which in turn created the Broadband Equity, Access, and Deployment (BEAD) Program. This program "provide(d) $42.45 billion to expand high-speed internet access by funding planning, infrastructure deployment, and adoption programs" (HR 3684). This investment in broadband is considered one of the government's most ambitious steps toward equality in broadband access. Through this BEAD program, the government, for the first time, provided grants to states to increase broadband accessibility. However, the bill allocates funding to states, which are given the power to regulate exactly how broadband networks can be built using federal funds. Because of this, restrictions on broadband accessibility vary according to state, resulting in a confusing patchwork of regulations.

The BEAD program is the single largest federal investment in broadband deployment ever made.

H.R. 3544, the Computers for Veterans and Students Act (COVS Act), is a bill that was introduced in May 2021 and passed by the House of Representatives in July 2022. This bill "requires the General Services Administration (GSA) to transfer certain surplus computers and technology equipment to nonprofit computer refurbishers for repair and eventual distribution to (1) schools (including home schools), veterans, seniors, and other specified populations in need; and (2) state and local agencies for donation to nonprofit and public entities." The bill was signed into law by President Biden as part of a broader omnibus budget bill.

S.922, The Eliminate the Digital Divide Act of 2021, was introduced by Senator John Cornyn (R-TX) in March 2021. This bill would require the creation of a program that will provide funding to states for increasing access to broadband in certain, underserved areas of the United States. The bill would also require the Federal Communications Commission (FCC) to establish such a program. The bill specifically aimed to help poorer communities, stating, "[s]tates must distribute these funds to certain broadband service providers for projects that offer a low-cost broadband service option for low-income subscribers." This bill never received a vote.

Other Policy Action

Through the Affordable Connectivity Program (ACP), the FCC offers a monthly discount on broadband to eligible, low-income households, as well as a discount on technology devices such as a laptop or tablet. The latter discount is applicable to one device per household. The program currently does not seem to be reaching its full potential, however. According to the Government Accountability Office, "As of September 2022, more than 14 million households had enrolled—about a third of the estimated eligible households." They attribute this low rate of enrollment to a lack of consumer outreach, including to households with limited English proficiency (U.S. GAO, 2022).

Another similar government assistance program known as **Lifeline** provides discounts on the monthly cost of phone or internet service. Starting under the Reagan presidency and expanding under the following Presidents, Lifeline evolved from providing subsidies on landline services to internet service. However, the program has somewhat failed to deliver, with spotty and unreliable service, restricted minutes, download speeds almost a decade behind the general public, and other technological shortcomings (U.S. GAO, 2017). These deficiencies were especially harmful during the pandemic when Americans used minutes at a faster rate for video conferences, medical appointments, and other necessary digital resources. The services offered through Lifeline are so subpar that, similar to ACP, most eligible people do not enroll. Despite Lifeline's shortcomings, there has not been much of a concerted effort to fix the program (Romm, 2021).

Even before the pandemic, 70% of teachers assigned homework that required access to the Internet (National School Boards Association, 2019).

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IDEOLOGICAL VIEWPOINTS

Conservative View

The digital divide is a largely bipartisan issue, with both conservatives and liberals aiming to improve access to technology. Improved access to technology supports businesses and consumers alike, thus stimulating the economy and providing support for the American workforce. Therefore, it is in the interest of conservatives to improve public access to broadband and adequate technology.

The passage of the IIJA was a bipartisan effort; however, some conservatives disapproved of the requirements set on broadband deployment, specifically concerning its favoring of "unions and government-run broadband." Conservatives also charged that the bill "[imposes] a confusing patchwork of regulations," especially since these regulations were not initially outlined in the IIJA (U.S. Chamber of Commerce, 2023). Additionally, government-run broadband networks are considered by some to be inefficient and

less effective compared to private networks. Given their power as a federally funded network, they may hold an unfair advantage in the broadband market and eventually build a **monopoly**, pushing out private providers.

A major concern is that these requirements for broadband funding will make deployment slower and more expensive. These factors have the potential to make programs like BEAD ineffective and thus unable to make broadband accessible to all Americans. Conservatives might point to existing services such as Lifeline and the ACP and argue that the government's direct provision of broadband internet has proved inefficient.

Liberal View

Although the digital divide is a bipartisan issue, liberals want to resolve the digital divide in the pursuit of equal opportunity. Especially in the modern age where education, healthcare, the economy, and many areas of American interest are dependent on internet access, a person's ability to succeed is considered by liberals to be dependent on equal broadband access. It is this principle of equal opportunity that is generally the largest driving force behind resolving the digital divide for liberals.

Additionally, global access to broadband is of interest to liberals. While the majority of the United States, North America, and Europe have access to the Internet, regions such as Africa, Central America, and others have unreliable or incomplete access to such resources. Liberals may favor Congressional efforts to improve internet access not just in America, but abroad.

The digital divide is notably distinct for marginalized groups, including poorer and rural communities, especially in developing countries. Gender issues and the digital divide are correlated in such countries, with men 90% more likely to own a mobile phone than women (Liberal International, 2020). Issues of global access and the impact of the digital divide on marginalized groups are a concern for many liberals, although depending on representatives' constituencies, members of Congress hold varying degrees of support for global access. Ultimately, the idea of equal opportunity, especially within the United States, is a central point for liberals in general.

Monopoly– when one entity (company, organization, etc.) has exclusive control over the supply and/or trade of a commodity or service. For example, if McDonald's was the only fast-food restaurant to exist, they would have a monopoly over the fast-food industry because there are no other entities that can compete in the fast-food market.

AREAS OF DEBATE

Allow Cities to Provide Their Own Broadband

Broadband is largely inaccessible for low-income Americans because those well below the poverty line cannot afford the resource.

Some propose that allowing cities to provide their own broadband could resolve that issue.

Currently, 16 states restrict cities from developing their **municipal broadband** networks (Cooper, 2023). Allowing cities to provide their own broadband could potentially diversify broadband options and make access more affordable and of higher quality for all users, especially low-income users.

Those in favor of such a policy argue that broadband is a critical resource, like the level of food or water. Therefore, broadband should be prioritized by more than just private providers, and cities should get involved in the broadband market. Proponents might say that cities will be able to address the needs of their citizens more directly by using locally run broadband networks. Additionally, restricting municipal broadband restricts competition, which in turn allows private companies like Verizon, AT&T, T-Mobile, etc., more power in the market and some control over service pricing. Allowing and implementing municipal broadband could stimulate competition in the broadband market, in turn driving down prices and improving the quality of service.

However, those opposed to this policy argue that municipal broadband development could crowd out private investments from businesses and instead push away private providers. Some also argue that municipal broadband is redundant and not, in fact, helpful in improving service quality and access. It may just be a waste of time and money. They might say that Congress' efforts are better spent providing or subsidizing broadband for rural Americans, who have the least access to high-speed internet. Opponents often point to past examples of municipal broadband networks failing and selling their systems to private providers. In these cases of failure, there is often a net financial loss to the city that attempted to provide its own broadband. Potential losses can reach up to millions of dollars (Schwartzbach, 2022).

Political Perspectives on this Solution

Many conservatives are against the idea of municipal broadband. They consider it financially unfeasible and a waste of taxpayer dollars. As was mentioned above, some attempts at developing municipal broadband have failed, resulting in a financial loss for those cities. Additionally, municipal broadband as an idea is still somewhat in its infancy, meaning it is difficult to project how financially successful these networks will be in the future. The question of if these networks will rake in enough profit to sustain themselves is at the center of the debate surrounding municipal broadband.

On the other hand, municipal networks are commonly supported by liberals, since they provide a potential solution to the digital divide. They argue these projects will eventually generate enough

Municipal Broadband – A broadband internet service that is entirely or partially owned and operated by a public entity, usually a local government or public utility provider.

In 2019, After a failed attempt at developing municipal broadband, Burlington, Vermont sold its network to a private telecom company, resulting in a net loss of $10 million (Schwartzbach, 2022).

profit to become sustainable and therefore are a just investment for the American people long-term. Municipal broadband could promote competition and in turn, help the American people.

Private Internet providers have a large stake in the broadband market and would not benefit from municipal broadband. Therefore, they generally disapprove of this policy, since they stand to lose a considerable amount of revenue and customers to public networks. While they do claim to want to resolve the digital divide, they do not necessarily want more competition in the broadband market.

Improve and Expand Lifeline

Lifeline currently runs on funding gathered from a tax on **telecom providers.** Some believe Lifeline's shortcomings could be improved through greater funding, meaning a larger tax on these companies. This solution is intended to remedy the cost of broadband for poorer households by providing a larger monthly subsidy for low-income users.

Proponents of this solution argue that a larger subsidy could grant low-income users more minutes, better service, and faster download speeds (Seamans, 2020). Thus, those without the means necessary for broadband could still connect with others, work remotely, and attend online schooling sessions. Additionally, this method would result in a low dependency on federal funding while connecting more Americans to broadband.

However, critics argue this method requires too much government involvement, as well as imposes unfair, additional fines on telecom providers. Furthermore, these providers would have to make up the loss by increasing the price of a subscription for their other users, meaning the cost of an internet subscription for a person not using a program like Lifeline could increase. Some might instead suggest larger subsidies for the program, as to avoid the impact the proposed method would have on telecom providers.

Political Perspectives on this Solution

This solution is likely to be favored by liberals, who support government intervention in private markets to address inequities. However, conservatives would likely point to the failure of Lifeline and say it is a sinking ship. They would also likely oppose increasing taxation on private businesses.

Similar to the first proposed solution, internet providers would most likely not support this policy. They stand to gain almost nothing from increased taxes and face the issue of losing customers because of increased internet subscription prices. They would, however, support larger subsidies for low-income users if they were federally funded. If these private providers do not have to make up the difference for low-income users, then they reap the benefit of additional customers without the burden of higher taxes.

Telecom Provider *– a type of communications provider that has traditionally provided telephone and similar services. They usually provide phone or internet service (e.g., Verizon, AT&T, and T-Mobile).*

Tax Breaks *– When the government offers a reduction in how much you need to pay in taxes. They are usually used to stimulate the economy, incentivize companies to do something, or increase the ability of a population to pay off debts.*

Tax Breaks for Companies Providing Broadband

This solution also aims to increase broadband accessibility by providing **tax breaks** to companies that pay for their employees' broadband.

Supporters of this solution argue that tax breaks would incentivize companies to provide broadband for their employees, as opposed to depending on federal funding or raising taxes on internet providers (Seamans, 2020). Thus, this workplace policy could be encouraged without requiring direct government funding for broadband.

However, opponents argue that this method may not reach every American, especially those with the least amount of access to internet currently. Rural broadband is especially inaccessible, and farmers, cattle ranchers, and other rural workers are self-employed. Unless special specifications are detailed in policies, rural workers may not benefit from this solution. The same concept applies to self-employed Americans, who may need special consideration when filing as a "business" for tax breaks.

Furthermore, this solution may not reach workers that do not depend on Internet access for their work. Tech companies or other institutions that rely on the Internet for the performance of their employees would most benefit from providing Internet access, since better Internet means higher performance. In contrast, blue-collar workers do not depend on remote work, meaning their employers may benefit less from providing internet. While tax breaks are beneficial, providing broadband is expansive and not every company will be incentivized to do so equally. Additionally, children attending school that do not have a parent working at a company (children in the foster care system, children with parents who have a disability, etc.) may not benefit from this policy.

There are approximately 400,000 children in the foster care system, almost all of whom still attend school and require access to broadband (childwelfare.gov)
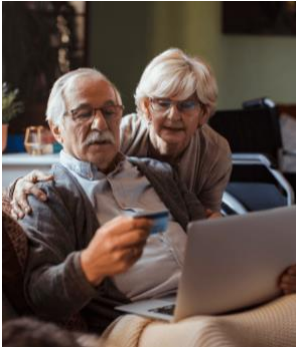
Political Perspectives on this Solution

Conservatives would likely support this form of action since providing tax breaks would keep the government less involved than directly funding subsidies or taxing broadband providers. Depending on the representative's constituencies and their own state's need for broadband, however, an individual representative's support may vary.

Liberals would consider this solution a step in the right direction, but perhaps not as direct as other solutions. They would especially be concerned about the ability of this method to support all Americans and promote equal opportunity for all workers and families.

Invest in Digital Literacy

Digital literacy is an issue in the United States that deepens the digital divide. According to a study conducted in 2019, only 40% of American adults could answer basic questions concerning phishing, cookies, and digital privacy (Vogels, 2019). One proposed solution aims to invest in the promotion of digital literacy so more Americans can safely and effectively navigate the digital world. Examples of investments in digital literacy can be seen in cities like Austin, Texas; Nashville, Tennessee; and others, where **"digital inclusion funds"** are implemented by local governments and used to help train people in low-income households on how to use computers and the internet. Other cities have recruited "digital navigators" to assist people, especially older adults, with navigating the online world (Horrigan et al., 2021). Some propose that similar resources become available on a nationwide level.

Proponents of this solution argue that such action could help low-income citizens and older generations become more comfortable with online resources and capable of engaging with work, school, and telehealth resources. By bridging the gap between accessibility and capability, more Americans could effectively engage in the online world. Additionally, if more Americans are equipped to interact online, then issues of fraud, identity theft, and other digital issues could be reduced. Increasing the capability of Americans to use the internet efficiently and safely may increase **e-commerce**, allowing more Americans to shop online and boosting the digital economy.

Opponents of this solution argue that additional funding for these programs would waste taxpayer dollars. Additionally, they question if it is the government's duty to provide a guiding hand for the online world. Some argue digital literacy should be implemented only in school as part of the standard curriculum.

Political Perspectives on this Solution

Liberals would generally be in favor of government investment in digital literacy as a direct way to potentially resolve part of the digital divide. Conservatives also aim to improve digital literacy, but most likely not by directly funding such programs. They would support the notion of assisting older generations and low-income citizens in understanding the online world, but they would like to leave this job to the private market as opposed to the government.

Americans age 60 and above are almost six times more likely to fall victim to tech support scams (Gill, 2022).

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E-commerce – *commercial transactions conducted on the internet, especially on a large scale.*

BUDGETARY CONSIDERATIONS

Closing the digital divide requires improved access to broadband, adequate devices, digital literacy, and other aspects. However, solutions to these different areas require some kind of

funding, whether it be from already existing sources or from newly created ones. When writing your own bills, it is important to consider if your solutions will draw funding from the BEAD program, other already existing programs or grants, or if it will require the development of new funding mechanisms.

Broadband networks in residential households cost upwards of $1,000 to build and take 6-10 months to get running, let alone in larger buildings like offices, restaurants, schools, etc. There is also the additional cost of monthly internet subscriptions that programs like Lifeline have to consider. If your bill aims to expand broadband networks, programs like Lifeline, or any other area concerning Internet access, you will need to consider all of these factors.

Devices like laptops, tablets, and phones make up another part of the digital divide and come with their own cost. Programs that reuse extra devices or recycle old ones may require a lower cost as opposed to brand-new devices. However, there is still labor involved in their transportation, refurbishment, and distribution. Workers who take over these jobs would need to be recruited and paid.

Digital literacy training also requires funding to pay for those running the program. There is the option of making such a program volunteer-based, but that could bring to question its reliability.

*"Broadband access is the great equalizer, leveling the playing field so that every willing and able person, no matter their station in life, has access to the information and tools necessary to achieve the American Dream."
-Michael K. Powell, former chair of the FCC*

CONCLUSION

The digital divide exacerbates many and inequalities, including race, socioeconomic status, age, geography, and many other areas critical to American life. Those without adequate resources miss out on many opportunities such as online learning, working remotely, and telehealth resources. Thus, the divide between different societal groups continues.

As delegates of the Committee on Commerce, Science, and Transportation, it is your responsibility to understand and resolve the digital divide. It is in the best interest of the citizens who voted you into office to address their needs as effectively as possible. Many of their jobs, schools, and communities depend on their access to digital resources, and it is up to you to write and pass bills that will support them. Be sure to come to the conference with a thorough understanding of how the digital divide manifests in your state, and what specific policies your constituents would like to see in place.

As you write your bills, you will need to work collaboratively with Senators you agree with and win over the support of those with whom you disagree. During the many stages of developing a bill, you will want to consider how your intentions line up with your allies' and how your bill will provide for their states as well. Especially since the digital divide is a bipartisan issue, solutions require collaboration across party lines.

Additionally, you will need to weigh unequal access to broadband with the health of the overall economy. How will government involvement affect private investments from internet providers, competition in the broadband market, and economic stability? On the other hand, how can government action most effectively address the digital divide and provide for those most in need? These are just a few of the questions you will need to consider as you develop your bills.

The digital divide influences nearly every area of American life and disproportionately affects those struggling financially. Such issues require your attention and assistance, but the form that such help comes in is up to you as delegates to decide. This briefing has outlined just a few of the issues and solutions concerning the digital divide, so feel free to combine multiple solutions and include your own ideas and solutions even if they are not covered in this briefing.

GUIDE TO FURTHER RESEARCH

A Google search is always a great first step to learn about any topic! However, be sure to review websites with caution and consider how reputable they are. Generally, URLs ending in .gov or .edu or more trustworthy compared to a URL ending in .com. If you are reading news articles, always make sure you check the political bias of the news source.

If you are looking for more academic documents like case studies, Google Scholar could be a great starting point for you. There are also a few websites that may help with your own research. The Pew Research Center has helpful statistics on the digital divide, as well as the Census Bureau. Congress.gov has a record of every bill ever introduced, as well as how far it got in Congress. It shows the status of bills, whether they have just been introduced, passed one chamber, are waiting on the President, have been signed into law, or any area in between. It is a great resource for understanding what the current landscape of congressional action looks like, which may be helpful as your own bills build on past legislation.

As you research, you may want to start with a general understanding of what the digital divide is and its effects on your representative's congressional district. There are many case studies on the digital divide's effects on society, whether in rural, low-income, or marginalized communities. After gaining a general understanding, it would be helpful to read more about proposed policies from both conservative and liberal points of view. After all, your committee will be made up of delegates from both sides. You will also want to read about already proposed/passed forms of legislation that address the digital divide. Congress.gov will be helpful for this area of research. And finally, you will use all this

information to develop your own ideas and solutions! Whatever direction you take this topic, ensure you understand the issue and aim to resolve it with your constituencies in mind.

GLOSSARY

Broadband – high-speed Internet access that is always on and faster than the traditional dial-up access

CARES Act – A $2.2 trillion bill signed into law in 2020 in response to the impact the COVID-19 outbreak had on the American economy. Also known as an economic stimulus bill.

Digital Inclusion Funds – funds implemented by local governments and used to help train people in low-income households on how to use computers and the internet.

Digital Navigators – People with some level of expertise in technology who are able to assist those with minimal technological skill, like older adults.

E-commerce – commercial transactions conducted on the internet, especially on a large scale.

Lifeline –a government program that gives discounts on cell phone and internet services.

Monopoly– when one entity (company, organization, etc.) has exclusive control over the supply and/or trade of a commodity or service.

Municipal Broadband – A broadband internet service that is entirely or partially owned and operated by a public entity, usually a local government or public utility provider.

Privatization – The transfer of a business, industry, or service from public to private ownership and control.

Tax Breaks – When the government offers a reduction in how much you need to pay *in taxes*.

Telecom Provider – a type of communications provider that has traditionally provided telephone and similar services. They usually provide phone or internet service (e.g., Verizon, AT&T, and T-Mobile).

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