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Does 5G Have the Potential to Make the Digital Divide Worse?

Due to new technology's inherent likelihood to leave segments of the population behind, experts and stakeholders say government must work to ensure small-cell network rollouts benefit the whole of communities.

BY ZACK QUAINANCE / JANUARY 31, 2020

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In the coming years, 5G wireless Internet stands poised to remake the online world, its unprecedented speed enabling advances in everything from public safety to virtual reality. Within this progress, however, there exists another near-certainty — segments of the population will be left out of the advantages.

Indeed, as small-cell networks enable blazing-fast Internet across the country, stakeholders in the government technology and innovation space say 5G will also exacerbate digital inequities. [Angela Siefer](#), the executive director of [National Digital Inclusion Alliance](#), said it's important to understand here that the digital divide — meaning the split between individuals benefiting from new tech and those struggling in its wake — is made up of many smaller divides.

“I do think it's going to worsen the digital divide,” Siefer said. “5G is yet another divide, and it adds to existing problems.”

There are three central problems at the heart of the digital divide: lacking Internet connection, lacking technological devices and lacking the skills to use new technology in a meaningful way. A lack of connection is an ongoing problem in many communities, especially those that are underserved — both in cities and rural areas — where it is not economically advantageous for telecom companies to build infrastructure or offer broadband at affordable rates.

Siefer said there is nothing about 5G that will make it a better option for communities already lacking affordable access to fast Internet. In addition, there is a distinct possibility that in order to access mobile 5G Internet, users will need a newer and more expensive device built for the increased speeds.

This all speaks to a larger ongoing issue in the country, which is that government and society at times still views broadband as a commodity, rather than a utility needed to foster equitable outcomes in education, healthcare, employment and other vital segments of daily life.

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“It’s a service that is sold,” Siefer said. “It’s not a utility, it’s not regulated like a utility and those companies that provide it are beholden to their short shareholders.”

Dana Floberg, a policy manager with the media and technology equity advocacy group [Free Press](#), agreed, noting there is a narrative being sold to the public that the country is locked in a must-win, high-stakes race to deploy 5G faster than other countries such as China.

Validity aside, that very notion only frames the issue as a technological challenge — asking how fast can we build small-cell networks — rather than an economic challenge. Ignoring the affordability component is likely to create all the same problems that have existed for years with other Internet services.

“5G is potentially an enormous technological innovation,” Floberg said, “but it’s not that innovative when it comes to the economics of the service. It’s a step forward for technology, but it’s not necessarily a step forward for affordability of competition.”

With that in mind, there are actions local government can take to help turn the advent of 5G into an opportunity city hall can use to foster digital equity. In fact, there’s already one major tangible success story.

San Jose, Calif., [recently announced](#) the largest digital equity fund of any local government in the nation, one that will see \$24 million in grants given to digital inclusion work in that city over the next 10 years. And that fund would indirectly not have been possible without the coming of 5G.

Last decade, San Jose did a benchmarking study to compare some of its digital equity issues with those of peer cities, and city officials did not like the results, said Dolan Beckel, who previously served as San Jose’s civic innovation and smart cities lead before being named chief innovation officer this month.

Officials there found that despite being the at the veritable heart of Silicon Valley, some 200,000 residents there did not have access to the Internet. Basically, the San Jose metropolitan area is home to some of the largest and most innovative companies in the world, and yet, there was a serious digital divide and poor connection quality plaguing much of the city.

In the parlance of 2020, this was a bad look, one that did not meet the desired brand image.

So, San Jose began to build inclusivity into the core of its tech and innovation work, with everyone from Mayor Sam Liccardo to the city council buying in and making equity a priority. Around the same time, 5G networks began to become a reality.

With that next-gen connection now realistic, telecom companies needed access to the city's infrastructure — to rooftops, alleyways, utility polls — to set up the physical small-cell boxes that make the service work. The largest communications companies in the world needed the city's infrastructure, and they wanted access to be fast and predictable, which were priorities the city shared.

Through discussion, what ultimately emerged was a partnership between the local government and private sector Internet providers, one that would rent the latter the real estate needed in exchange for money the city could channel back into digital equity efforts.

As a result, telecom companies are responsible for \$14 million of the grant money San Jose is now offering to advance digital inclusion. The first round of grants, spanning 30 agencies and \$1 million, will go before the city council in February.

Granted, San Jose was in a somewhat unique situation, because before coming to the city Beckel had worked for the same telecoms he found himself helping the city communicate with, giving him special knowledge of their technology life cycles, spending practices and other information that got the two parties on a mutually-beneficial page. But Beckel said in a recent conversation with *Government Technology* there are lessons from what San Jose accomplished that can benefit other cities, too.

The chief lesson is that the involved parties need to work together here, because they all want the same thing. While shareholder priorities and the needs of government can often be in opposition, in the case of 5G everyone wants faster Internet throughout the city, and they want to make that happen through a speedy and predictable installation process.

It really does benefit the city to find a way to approve installation permissions faster, especially if officials can leverage that for financial benefit. This can be achieved by finding an agreeable way to have the technology rolled out at scale, rather than on a project basis.

“It could be a pole-by-pole or rooftop-by-rooftop knife fight,” Beckel said, “where 5,000 times we negotiate this, or we could negotiate the entire city.”

Doing this at scale may involve building new process tools to make the whole process easier, which is something San Jose used to go from issuing five permits a year to 60 permits in a week, and they built those tools, again, through public-private partnership.

Beckel also stressed that it is important for cities to view providing affordable broadband options as vital to the service they provide residents. They need to embrace this as one of their duties, which, getting back to the points made by activists like Siefer and Floberg, is not something that all cities make a practice.

“Who knows what 5G is going to usher in, but we felt very passionate that we can’t have 5G widen the digital equity gap,” Beckel said.

And that passion is, of course, not limited to San Jose. New York and San Diego have deployment success stories. And Boston has long worked hard to foster competition among Internet providers in its city as a means of lowering the cost of broadband access. Boston also has a full-time staffer within city hall that works on digital equity issues, and it has a robust and [growing digital equity fund](#) to support work done in the area by community groups.

Still, Boston CIO David Elges agreed with the others that 5G exacerbating the digital divide is a concern. Elges noted that [the federal action](#) to take some of the decision-making powers from local government is a challenge, but he said the city is working hard to approach the advent of 5G with the same commitment to digital equity it brings to its other work.

Elges said key to Boston’s approach is making sure that the two conversations surrounding 5G — the one about how best to spread the physical technology and the other about digital equity — are happening in tandem, that public-private partnerships are vital and that they “always make sure residents are at the center of the conversations.”

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