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Brookings Cafeteria Podcast
Who's left out by America's digital divide?
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(MUSIC)

DEWS: Welcome to the Brookings Cafeteria, the podcast about ideas and the experts who have them. I'm Fred Dews. My guest today is an expert on global and domestic broadband deployment, regulation, and governance issues. She also studies the intersection of race, wealth, and technology. Nicol Turner-Lee, a fellow with the Center for Technology

Innovation at Governance Studies Program at Brookings is here today to talk about her new Brookings photo essay titled: "Closing the Digital and Economic Divides in Rural America", with original photography by Mark Williams Hoelscher. After my interview with her, stay tuned for a conversation between Brookings scholars Tarun Chabbra and Tom

Wright about Wright's book, "All Measures Short of War". You can follow the Brookings Podcast on Twitter @policypodcasts to get the latest information about all of our shows. And now you can find all of our shows on Spotify. And now, on with the interview. Nicol, welcome to the Brookings Cafeteria.

TURNER-LEE: Thanks Fred. I'm happy to be here.

DEWS: I'm delighted to have you on and as we were just saying, this is the first time you've been on the show and I feel remiss in that. But I'm glad to have you on on this occasion.

TURNER-LEE: Oh thank you about time [laughs].

DEWS: Just for listener's sake you can find this what we're calling a photo essay on our website, Brookings dot edu. It's a beautiful piece of writing and a beautiful piece of visual art by our colleague Mark Williams Hoelscher. So, that's what we'll be talking about. Nicol, what is the digital divide?

TURNER-LEE: You know, it's interesting. I have to give listeners a context for how long I've actually been exploring the subject. Shortly after I finished my Ph.D., I decided I wanted to work within the community, and spent a significant amount of time in the city of

Chicago working in, at that time what was considered the Community Technology Centre Movement, and there, before the birth of the Internet, I was able to meet tons of families from across the city, particularly in lower income neighborhoods who were being introduced to technology for the first time. That was around the time that Larry Irving was Assistant Secretary over at the Department of Commerce who came out with this concept of the digital divide.

And at that time we saw the digital divide as something that was quite binary: it was between those who were online and those who were not. And Fred, it was very different back then being online was not what we see it today. Smartphones, I mean that time people were still carrying around beepers. We weren't talking about high speed broadband. We were still logging on to AOL and hearing the cranky sound of the modem. The digital divide was really about who has access to this new medium that is connecting people to things like e-mail, or allowing them to go beyond the Encarta CD that was the new encyclopedia for technology. And so I started there, and I joined a group thereafter called One Economy Corporation, where we spent the next five to ten years essentially trying to bring attention to those that were on this wrong side of history. As the Internet became much more popular and the digital divide became exasperated, what we saw then in the mid-2000s, were people who were no longer allowed to go to the newspaper to find a job.

They had to be online to apply for civil service jobs at that time. I'll never forget, I was in a tech center that was relatively quiet by adults and mostly populated by young kids. And it was one of the tech centers I started, and a bunch of adults came in because they wanted to apply for TSA jobs, and the only way that you could apply for civil service job was going online. You want to see the number of adults that actually got tech savvy in less than 24 hours? You push very important functions online. And I think to your question, the digital divide has really evolved from my understanding from something that has been a very binary approach: who's on who's off, who has it, who doesn't, who has a device to who doesn't

have a device, to something that has become much more complicated because not only do you have to have a device, but in some instances to take an Uber, to rent Airbnb, to shop on Amazon, you have to have financial collateral, and the new digital divide is sort of manifesting itself in a way that people who are not looped into the digital economy and the rich, digital information that is available, they sit within that digital divide.

DEWS: I was doing some rooting around on the Brookings website in part of this interview, and I found a piece from the very beginning of the 21st century a scholar had written about the digital divide, and the scholar was referencing a divide in telephone service that still existed at that time. He did point out that people of lower means and black Americans and Hispanics actually were experiencing a digital divide or a divide in telephony, but he emphasized that maybe with this new computer thing people might still choose not to have a Pentium PC in their home and it's a choice, but we're so far beyond that and you're explaining very well that and it's essential right to have a digital connection.

TURNER-LEE: No it is. I think communication services, we've always wanted them in this country to be ubiquitous. And you know from the telegraph, to radio, to television, and now the Internet, the question really is becoming, you know, what is the cost of digital exclusion? Now, you know, many of the listeners here we take for granted. We can go online get an airline ticket, we can go online and look up more explanation of a doctor's diagnosis, and we can go online to help our kids with homework. Those privileges of being online versus inline, have consequences for people who don't have access. And I used to tell people, because at the time when I started this work, Fred, digital divide technology was sort of this marginal conversation you know, we talk about health care and then there will be this small room that only you know the health care panel—back then I did panels, and now I do less panels. Health care panel would have rooms for seating of 2 to 300 people. The technology panel would have 20 seats, right. Because technology was sort of on the fringe of any other conversation. Today, the disruption of technology has made it that it's part of

our legacy industries, it's part of the way that we talk about you know not just commerce, but education, healthcare. It's become part of our everyday life. Many people listening would not know what to do if they did not have access to their smartphones, because not only had the technology morphed into something more ubiquitous for those of us that are using it for variety purposes, the form of the technology has become much more convenient.

So, if you go back and you think about those big old computers that ran Whang, mainframes right. And then you look at 380 sixes, and then you go down to these Pentiums, you know then you go to the laptops, and then you go to tablets, and now you have the power of computing in your pocket. You know, the question becomes there may be many people particularly African-Americans Latinos say over index and their use of smartphones, so mostly everybody in America has some type of communications device. Now it's much more available than it's ever been before. But at the same token, and this is what was revealed in the story, how much of that for poor people has crossed over into the use of data as opposed to the use of it for calls. You know text messaging was a big thing a couple of years ago, now people basically get online and they use different apps to communicate. Social media, close private chat message apps, you know the app economy sort of shifted the direction of the Internet, and that's why it was imperative to tell the story because I think in the Beltway, we take for granted that everybody is possibly a digital native and that's not the case.

DEWS: I want to definitely dive into the story itself because there's some really interesting people that you talk to in this story. When I asked another kind of definitional question and that has to do with access versus I quality or what we're accessing. I know as you just said a lot of people do have access to some kind of technology. People have smartphones, but what about access to broadband type of Internet access? Can you speak to the difference and how we should think about access versus what people are actually accessing?

TURNER-LEE: Yeah I mean I like to look at it in two ways. I love the comparison access versus access, because that's actually true, it's two A's. And if you don't have any, you're just not getting to the letter B. We do have an issue of widespread deployment in this country. Infrastructure is a big deal. Again, with broadband now seeping into the mainstream dialogue on national infrastructure plans, we should see that improve. There have been investments now more so than ever in rural broadband deployment. I mean, it is tough out there. Recently in my drive for this story, and my drive recently over the summer out to areas like Craigville and Goshen, you know there is no access. I was sharing with somebody that I was completely frustrated in my drive out to Goshen, Virginia to drop my son off at Boy Scout camp and my daughter in Mount Salem Virginia at Girl Scout camp, where my GPS kept falling out, and I kept having to go back to the major city to get a signal to determine where I was going because I was so heavily reliant upon my GPS for directions and out in rural America, we simply don't have the assets and the telecommunications facility to make it work. So we definitely have a deployment issue. The Federal Communications Commission is currently defining that as a digital divide issue because the assumption is, if you don't have enough infrastructure deployed, you then face the challenge of not being able to connect communities across the country. And I think it's a valid proposition, but we also have a people issue which is what we've been talking about previously, which is the extent to which you can deploy infrastructure in rural America.

You can have more competition in urban America, there are places even in Washington D.C. The Washington Post pointed this out not too long ago, about a year ago. You go beyond K Street and you go into Anacostia, there's not the choice of providers that people need to get competitive broadband. There are quality of service issues in particular areas. I just saw a study in Los Angeles County where places like Compton and Long Beach don't have adequate, sufficient access to providers. So, there still has to be this motivation of the marketplace to invest in areas that may not have a complete, immediate return on

investment. But it's important nonetheless if we're going to push more ubiquity among infrastructure deployment. But, once you deploy like I always tell people, you can build it, but it doesn't necessarily mean that people can afford it or they will come. And so you have another challenge of whether or not people will be able to maintain the service.

Low income people, for example, when it comes to data, and I'm talking about voice calls, tend to be the most prohibitive when it comes to costs. Data runs out, the phone becomes a box, they've got to wait to the minutes re-ups or the data re-ups, and then they have to do it—that's different from the privileges that we have. I have a big 16-year-old gamer in my house, and I always get messages from my broadband carrier that says, "hey you're about to go over your data" to which I'm able to say to him "stop playing games on your cell phone for a minute or your mobile device because I'm going to pay overage charges". But imagine if the lifeblood of your existence depended on you taking a certain class or applying for a job or communicating with your doctor. So there's a challenge there. You know, we can deploy it but whether or not people can actually get it is another question.

DEWS: Are there ways that help people with access now?

TURNER-LEE: There are programs, one in particular is the Lifeline Program, to the point of the article that you spoke about, that was designed to make sure that communication services and telephone were much more affordable to people, people at that time needed 911 on their phone. Those of us that still believe in 911 in our house do have cordless phones that are becoming quickly archaic, you know. But the lifeline benefit offered a benefit for people to get basic telephone service that would soon after apply to mobile service. And right now it's in somewhat of a stickler in terms of its applicability to broadband service.

With broadband becoming the new communications networks tool. it's only imperative that it is. People need resources to get online. I can't always remember the last time a phone call, Fred, you know on services. I'm quick to look up there URL, I'm quick to send an e-mail, and our email addresses, unlike our phone numbers, often don't change, right. And so those

things are becoming particularly important to I think the debate of balancing infrastructure with people, because at the heart of it, we need the infrastructure to allow for people to get online wherever they are, on whatever device, and at any time.

DEWS: So, you've talked about challenges to how people are getting online, but what about people are accessing when they are online?

TURNER-LEE: In terms of what people are doing, I think you know when Pew Research Center started this research back in early 2009, I was responsible for when I was at a previous think tank, the first national minority broadband adoption study, where we oversampled African-Americans and Latinos to determine their broadband use. And what we've found similar to the Pew Research studies, that at that time people were going on there for e-mail, you know contacting doctors, contacting family members, uploading pictures. That study and those functions today seem pretty archaic to many people who are now using apps, games, artificial intelligence applications, autonomous vehicle, voice activated devices like Alexa, and you know all those things are quite different in terms of the functions that are available on the Internet.

So, in going back to your question we need a resilient network. We need 5G. For listeners who don't know what that is, it's the next generation of wireless networks that have the speed and the latency in place where you could actually be a surgeon and do remote surgery without missing a beat. Meaning, the call won't drop while the knife is at your stomach, and you can do it in real time. We need fixed wireless networks where we cannot deploy the next generation mobile networks, where it's going right to the fiber is allowing us to build these networks in rural America for example, where people can get the same access to my GPA signal doesn't drop when I hit certain parts of a state. And so, to your point, I think it's endless. And what's been so beautiful about technology is that it's been the lowest barrier to entry for anybody with an idea.

DEWS: Let's stay on the topic of now, people and how they're using it. Nicol, you went down this summer to Staunton, Virginia, and it's about two and a half hours from here, and you talked to a lot of people there.

TURNER-LEE: Is it Stanton or Staunton?

DEWS: It is Staunton. My wife, who grew up in the Shenandoah Valley reminds me it is one of those Virginia town names that is not pronounced the way it is spelled. Just so listeners know, it is spelled S-T-A-U-N-T-O-N, but we do not pronounce the U, I don't know why. It's Staunton, Virginia, and you went down there and you produced with our colleague, Mark Williams Hoelscher, a photo essay. First, why did you go to Staunton?

TURNER-LEE: You know, it's interesting. I have been wanting, as part of the set up for my book, to get out of the Beltway and to go back to my roots as a sociologist, to do some qualitative work and some participant observation. Part of that was motivated by a particular panel I was on with a bunch of Beltway folks who basically had prescribed what they thought were the right legislative and regulatory requirements to help low income people get online. And there was something gnawing on me at the time that said, "This is not the experience of my extended family, and it's definitely not the experience of the people I've been meeting around the country". So, I try to pick a place that was easy to get to. I had heard a lot about Staunton from a friend, Chris Wood, who's actually profiled in the story, who is an advocate for LGBTQ youth who comes to D.C. to leverage programs like Lifeline to make sure the kids get access to affordable phones at this 995 discount so that they can get social services because when they come out, they're often abandoned by the families and don't have access to social services. What he's developed is this nonprofit that is a safe haven across the country for kids to get access to mobile devices where they can call caseworkers and find shelter and stuff like that.

So, he invited me down and he said you know if you're going to go anywhere, come to Staunton. So of course you know I've got a car, and Mark was willing and we at Brookings

went down there with a camera and an idea. And I have to tell, you I mean outside of coming out of Washington D.C., it was eye opening because essentially what I did was we had set up the formal interview with Chris and with another woman, Chris Cain, who was starting an opportunity hub, so a co-working space in Staunton. She was donating the building, and she's the woman with all these beautiful tattoos and big wide rimmed glasses.

DEWS: There's a picture of her in the essay

TURNER-LEE: Yeah, and she had moved from Richmond, Virginia after working with low income women to start their own businesses, that she felt the small community should have a co-working space, an incubator, and I was all for it. I interviewed her, I interviewed Chris, and then I said to Chris, I want to walk the town and he said OK. So we walked, and along that walk, we were exposed to Rod Robinson who was a homeless gentleman and lived in his car. Richmond, Charlottesville, found this community ,opened a barbershop, and he started telling a story about how he brings Internet access to kids in the community, his one chair barbershop and he's put a Wi-Fi links. They get a haircut. They do their homework and get a haircut or they get to do their homework.

DEWS: The kids can just come into the shop and do their homework. It was his WiFi.

TURNER-LEE: It was fascinating, yeah. So after meeting these main street entrepreneurs, Chris, his husband, and him, they owned this store and they were using Foursquare. I met a guy who was a former executive chef at The Little in Washington who started an organic restaurant. But I found out that Main Street America knew about this digital divide and knew that they needed broadband. And they helped me to understand as a Beltway person why this is important. I know the policies, Fred, but they gave the color, and they gave the narrative, and that was really important to me to sort of understand how much broadband, for what reasons are we doing things right in D.C.? Are we reaching the right entrepreneurs? And all of their narratives were basically very interesting. They want to have an improved quality of life in that small rural town that sits just two and a half hours

outside of D.C., and the only way that they could do it particularly, I mean if you go to Staunton, there is a commercial side, they got a big old Wal-Mart with all that stuff. But the downtown area is still, pretty much to me, reminiscent of its pre-Civil War time or post-War times, where it still has its uniqueness and quietness that I found to be particularly intriguing.

I didn't know that I was going to meet so many wonderful people. I had researched the place before I went and also found out between the Mary Baldwin College and the Woodrow Wilson House, some of the history behind it. And then I also went deeper and found out that the African-Americans that live in the community had come post-Reconstruction and had settled on the other side of the tracks.

DEWS: Literally.

TURNER-LEE: Literally

DEWS: There's a picture of train tracks in the essay.

TURNER-LEE: So I said to Chris, who barely goes across the other side of the tracks, as an African-American woman, I was going to go. And I saw the Booker T Washington high school, and Mark took beautiful photos, and along the trip, we ran into a little blue house with two people sitting outside. And I didn't know them, I'm not from Staunton, just researcher, and I stopped and told Mark and Chris to stay in the car for a minute and basically introduced myself and told them that I was exploring in a new project and a new book, Internet access in America. And that's when the African-American woman, who was an older woman, said "I don't go on the Facebook". I said, "Do you think that's the Internet?" and she said "It has to be, because everybody is on the Facebook"

Facebook has become the Internet. And when she explained to me that she doesn't go on Facebook anymore, but she said I have kids that are inside that do. And those five generations of Mulgrave family members came out, it was an eye-opening experience because it showed me also, to your earlier point, that the divide exists within cities, but even within the places that we live, people have disparate access and they have effects for the

small, main street business owners. The effect was their inability to go beyond the small community and to tell their stories. For the Mulgrave son, Joseph, who I profiled was fiance and kids, two wonderful kids, and they're brothers. It was a life and death as to whether or not they would get a job. So all of that, to me, sort of made sense for this photo story and I wanted to narrate this story in a way that brought dignity to both the community, as well as those individuals that took the time to talk to me.

DEWS: And Joseph Mulgrave in particular, talked to you about that issue that you brought up earlier, about data plans and having a pay really close attention to how much data he was using on his phone and once it got used up, that was it.

TURNER-LEE: Yeah I mean it's online negotiation. I don't think about any of that.

DEWS: I don't either.

TURNER-LEE: I mean I go home and my phone automatically switches to my home Wi-Fi network without me even thinking about it. I never think with all the unlimited plans that I'm going to run out of data. I have tons of applications, I listen to my music, I put on my GPS, I check my email, and I talk on the phone. I do a whole lot of stuff that are data driven, and I use my WhatsApp or whatever the case may be. And I never once, Fred, think about whether or not I have got data.

And so I found it to be interesting because both between him and his fiancé, they basically articulated the strategy that they use to preserve that data. He has said again this just becomes a box, and at the end of the day there's nothing I could do with a box. I can't find a job. You know, you think about the classifieds have shrunk within print media. When I was growing up, you know you take up maybe three quarters of a newspaper. Today, they take up less than a quarter when it comes to classifieds, most of it is legal announcements. So there goes your opportunity to do that. You live in a place like Staunton, Virginia. Your child gets sick. There's no local hospital potentially that's a specialty hospital. You may have to take your kid up to the next available city. You know Roanoke perhaps or someplace else.

The Internet affords most of us the opportunity to see if the drive is going to be worth it. To diagnose, like my daughter came back from camp recently, her first overnight trip it allowed me to diagnose whether it was poison ivy or not. Before I took her to the doctor, you know people of color, low-income people, they are the other America, as Michael Harrington said with more variety. They said every day trying to figure out how to make three peas in a jar, or a can, can feed a whole family. And now we're making them do that with the Internet. And so to me, that was a point in research, I have to say that it all made sense of why I was sort of the purpose to do this book because of my experiences of working in communities you know from an early age and being at Brookings and being an investigator and researcher on legislative and regulatory policies around telecom and high tech and continuing to look at how technology is changing the world in which we live in, and the landscape of the actors are changing, this gives me a chance to blend the people with which we were talking earlier the infrastructure and the needs that people have to satisfy.

DEWS: All those needs in a place like Staunton are so multifaceted. We have the Mulgrave family, who just need access to more broadband to do some of the basic things of life, like you and I take for granted versus the business owners on Main Street who are trying to run their businesses. Well, what kinds of policies can address all of these different needs in communities like Stanton and elsewhere?

TURNER-LEE: I believe that we have some regulatory legislative policies in place that we need to revisit how the resources are allocated, and what the caveats are within the policy language that either hinder or restrict our ability to serve more people. You know you take the Lifeline program for example. The 995 benefit that people use that started as discount subsidy to install phones hasn't changed. But what has changed in the technology ecology, and this is something that's going into my book, is our ability to actually offset data on commercial applications. I mean there are carriers that you can go to now we get free Netflix, you can get free Spotify, and you can get free Pandora or whatever the case may

be. They advertise off the commercial aspects of applications. Why can't they advertise that you can get a dot gov offset of your minutes? You know the bandwidth, I mean we know, Fred, that governments aren't necessarily making the most savvy multimedia. But guess what. Somebody like Joseph Mulgrave, if he knew that a dot gov was offset from his minutes, and that he could apply for a job, he would definitely take advantage of that. So that's something I explore in my book, how do you leverage the innovation in the private sector to apply that to government applications and programs that extend benefits to poor people that we couldn't do before. These things were unthinkable. We didn't have the technology to do those kinds of things right. We didn't have the technology to think about ways that you know Uber could be leveraged to get people to doctor's appointments. Now we're seeing certain communities where doctors actually reimburse patients to be able to take an Uber to the appointment. Totally out of my league and your league when we were growing up. These things didn't exist, right, so people know the best in my league that I was a master at was Pac man. You know and I could beat my kids still to this day at on Atari System. But now the gaming systems and AI are actually making it so much easier. So we have to think about ways to partner government policies that have been around for quite some time, make them less archaic, and bring some of the innovation to those policies. I think that's the first thing.

I think we also need to think about how we divvy out monies to serve underserved and unserved areas when it comes to broadband deployment. Clearly, the appropriations in the legislation that's happening right now in Congress and regulatory agencies to deal with rural broadband deployment are a necessity. And I say that not just for rural America where you know I was in Lincoln, Nebraska where I met broadband providers that were wiring cattle ranches, and you would be surprised that the reason that they were wiring cattle ranches is not just for you know, brief internet access because it's the right thing to do, but migrant workers can speak to their families overseas, or precision agriculture can let a farmer know how much water is still needed to ensure that that crop actually grows. It improves quality of

life. A sensor in a cow can tell you if that cow is at a place where they actually are ready to expel milk. I look at that stuff all the time and I say to myself the power of technology rural is a necessity to the national economy. It's an imperative if we want to be smarter in how we do things. And so I think again having public policies that do not pick winners or losers, my recent language has been we need to stop saying that we have an urban divide and a rural divide, and we need to start talking about urban solutions and rural solutions.

DEWS: Can you explain that?

TURNER-LEE: You know, even in urban areas which tend to be under consider are underserved, I suppose unserved, we still have places like Anacostia, the communities where the lack of competition still limits people from beating access to technology. So I think that there is a possible place for that, right? Expanding benefits and leveraging what new technology is able to do on commercial products and bringing that to the government sector and the public sector, figuring out ways that we actually are more creative in the reallocation of funds, not picking winners or losers when it comes to technology rollout, and ensuring that we have solutions that fit with the type of community which we're dealing with, right? I think it's really important. We're seeing some of that movement on the regulatory sense there's been some great movement out of the Federal Communications Commission in terms of streamlining, some wireless policies, making it easier to build. But I put a charge out to America that technology is not just for the privileged, it's for everybody. You are not going to realize wherever you are, the middle class dream the dream of just a wonderful fulfilled life, if your kids are still played because on the wrong side of the homework gap. It's not going to happen. And the trajectory in which technology is not reaching, which is why I think again we need a national imperative, it has impacts on other metrics like poverty, in healthcare, chronic disease and health care, there are so many technological innovations that can reduce the impact and the cost impact that this country covers every year, simply because people sit on the wrong side of the digital divide.

DEWS: When you say technology is for everybody, does that feed into what you write in the photo essay that digital access is a right for all Americans?

TURNER-LEE: I think so. I mean I used to think it was like a choice, right. Because when I was working in communities, we would bring a computer and not come back two weeks later, and there'd be a cup of coffee sitting on the computer, and I say "what happened?" And they say "well, you know, this computer thing is not my deal, right". And I've seen so many families that like even like Joe Sieve Kinsey, where they're going out, even if they're doing you know pay as you go, or high rate rental, or buying it on the black market, they're getting their kids access to technology, because they know this many kids he said we need a tablet for these young kids, they were like for or five, because without it they can't do anything. They're not going to be savvy to the new world. And I think that's right. My kids go to school in Fairfax County, everything they do is on this computer system Blackboard or Google Classroom. One day, our Internet was down and I don't know what we were all going to do in the house. You know particularly my kids, I was just like I am so sorry. I had to pull out my-fi device. But again, I have alternatives. I have choices. I have a choice whether or not I want faster speed service because I want to do a whole lot of cool stuff in my house. I have a choice to live in neighborhoods where broadband access is part of the real estate of my community.

But some people don't have a choice. Their daily struggling between broadband and bread. And they shouldn't do that because at the end of the day I could take a cab from Brookings to Capitol Hill and no offense to cab drivers, I support taxi drivers across the country, but I take a cab and it cost me 30 dollars, 25 dollars. I could take an Uber, and it would cost me twelve dollars, fifteen dollars. There are cost savings that people with very limited discretionary income are losing out on. That additional 15 dollars that a low income family just paid on that taxi. Those ten dollars a day just found the bus going to and from a doctor, that's a child that stopped being read to. That's a home that's not being tended to.

That's an elderly parent that may not get a visit. And we have to stop wasting people's time in this country. We do, and we know the technology, as it continues to evolve, is going to do things that will amplify these efficiencies, that will help us to live longer, to keep our legacies alive longer, to manage it so that we have better work life balance, to keep us alive. And we do a disservice if we continue to have conversations that this is not a right of all citizens. There are some people who argue against me. I will admit, there are people who say it's not about civil rights. It's a must or a want, but not necessarily a need. And I would argue that it's a need, and this is something that will be in my book, there are too many people who align with those that are disparately impacted by their lack of access, that are poor, that are seniors, that are miseducated or undereducated, and if you track those trajectories, we're leading ourselves as a work force demands that people have these technology skills. As a nation we're leading ourselves into a dead pool of a lack of a lack of opportunity for buckets of people who will not be able to work in these industries.

DEWS: Do you think it's a fair analogy or metaphor to liken digital access to say public utilities? I mean I know public utilities aren't evenly distributed in terms of quality around the country, but pretty much everyone has access to water, sewage, and electricity. They pay for a public utility that's regulated by the state or the county or whatever. I mean, is that a way that maybe we should start thinking about access to digital to broadband to digital?

TURNER-LEE: You know, it's funny because a public utility also assumes that there's some type of metering when it comes to its use. I mean water is metered, somebody comes out they check the amount of water you use, etc. I actually push back a little bit on that argument to say that I think we need to be able to ensure that the technology is ubiquitous enough that people have the right to the right kind of competition, the right type of access on the device of their choice. I think cost is an issue. I mean we did see with a low-touch, regulatory environment, prepaid cell phones, which is what the Mulgraves had in terms of prepaid services and such. But I caution us to place broadband into the same boat as legacy

communications services. Honestly, I have particular feelings about that given the fact that there was very debate that's never ending in terms of you know, what side you sit on forcing on Brookings, I have to take a side.

But I think that there has to be a serious conversation around the strategic deployment of broadband services nationally in this country. There might be areas where the private sector will actually build the network themselves and invest the money in the network. One trillion dollars alone goes from broadband companies into the building networks. There might be areas where local companies, broadband providers may decide to do that. My concern, honestly, is get government out of the way, get the private sector out of the way in those cases where it makes sense, right. Whether or not broadband service gets metered, I think we run the risk, honestly, of sort of squashing the potential that broadband may have, and the amount of capacity that people would actually get. And so I go back and forth with that because I can't see myself the way these plans are panning out. I'm grandfathered into a particular company, I have about five phones, personally, and I pay under 200 dollars, and so I would tell people all the time I feel pretty good service. I don't think I want to change that.

But again, I'm one person that can afford that so I think as we go further in this debate, it's worth the conversation, but I think we need to be careful about claiming broadband as a utility based on how the utility services have worked and looked like this country. Just take a look at Flint, right?

DEWS: Flint, Michigan and water

TURNER-LEE: Flint, Michigan and water. We still, because it's a government regulated service, essentially the government created that problem and the government is not able to fix it right now. And as a result, people who got that substandard water are getting sick and the problem is still not solved. So I caution against any government saying "OK, we're going to regulate, particularly something like broadband because we don't know yet

what the potential is". I think in may be five or six years that conversation may be different.

DEWS: Let me let me stick on this question of the private sector for a few minutes, because I wanted to dive a little deeper on that and we always hear that the companies, they own the lines, they put the lines in. If it's profitable for them to put more lines and increase broadband access in rural areas, they'll do it. If not, you can't really make them because they're private companies. What is the role of the private sector, and how do you incentivize them to extend broadband to places that are underserved?

TURNER-LEE: Yeah I think that's always an interesting question. I mean, I've gotten to this point. That's why I'm pushing urban solutions versus rural solutions as opposed to divides. I think the private sector has played this role where the return on investment has been very important, particularly when the per capita investment I used to know this number in rural, you know it is a significant investment cost because you're looking at the fiber as a determination spot, you look at the propagation facilities, etc. If you ever ride through rural, you'll find more satellite dishes on small houses, primarily because satellite is much more ubiquitous in those communities Direct TV, dishes, etc. You actually see more of something in my book I'm exploring why that is right.

But I think what we have come to a point, is kind of goes back to my earlier point, that we shouldn't stop other localities of actually building out broadband networks if it works for that state. There's examples like the state of Minnesota, where the broadband commission has worked very diligently to fund local providers who want to bring fiber directly to the home or fiber to downtown. And I think we're beginning to see some of the big incumbents become more comfortable with that, because they realize they're not going to that place. Years ago, we had this debate, we used to talk about you know, middle mile last mile. We still have middle mile and we still have last mile problems, right. And I've been in this debate for 20 years. So I think as we move forward, I think it's important that policy makers don't pick winners and losers, that we come up with creative solutions that work for the towns. There

are towns in this country, of mayors leading 500 people. That may not make a big business case for an incumbent, but it may make a big business case for a small wisp, or you know a person who wants to put fixed wireless into that community. We've got to be a lot more comfortable opening up the marketplace so that more people can compete. If we're going to fill these holes, where we want continuous access, I will share with somebody I look at where we are with broadband and in many respects like where we were with the highway, that we've matured now where now broadband is now a late teenager and we now can start identifying… I have a teenager, those things as parents that really annoy us, where are those gaps in behavior, where are the areas that we need to strengthen before they get to college, where are the areas that we may need to tone down.

And I think in the beginning stages of broadband deployment, for example, we were still trying to pick and choose places where we'd actually extend it. I think we need a comprehensive strategy to ensure that we do and continues access across the country, bicoastal, within valleys, peaks, where people live. You know, I'm still debating what people do, why are places where there are cows? You know there's a topography still lend its name to that and I see you know Microsoft has a project of white spaces where they're trying to experiment with low band frequencies, they come up for radio signals to do broadband pilots in rural areas. I'm actually going to see some of those examples from my book. So I think all of these examples are going to be in my book, Fred, of how people are trying to solve this problem. But I think it really starts with our awareness as citizens that we need this ubiquitous coverage.

DEWS: Well Nicol, I want to just finish off by learning a little bit more about the book that you've talked about, and also the essay, this photo essay mentions that this is one stop on a 10 city tour. So talk to us about other places you've been or you will be going to, and what the outlet for the book is, and when we can read it.

TURNER-LEE: Yeah I'm so excited! I felt like I had to say that in my Oprah Winfrey

voice. I'm so excited about the book for a variety of reasons. I have sat, marinated on this topic for most of my career. I've met these wonderful people across my career that have actually been either the consumers of broadband, not benefited from broadband, or have built local networks to bring more broadband access to people. So I'm really excited about it. I decided to do it as a 10 city tour because I realized that I've been out of the game too long to know what the real issues are. I mean I started as a digital activist, so part of my problem was like "how do I do this?" And in talking to our publisher here, I said you know I'm thinking I want to go out into the community. I honestly, Fred, if you really want to know for your listeners I think they'll get a kick out of this. I wanted to do a book, much like the style of my favorite book called "Evicted", where the author details four or five families and takes us to the process of their living situation to the point that many of them evicted, but I didn't have six years to do that. So I decided to pick some macro issues and find communities that would help me amplify with the macro issues and solutions. Ever since I started that study, people have been calling me left and right. I cannot tell you how many cities I cannot go to as a result of that. So I'm looking forward to it. I have already been to Hartford, Connecticut. I heard a story about young girls that were going to the local McDonald's to pick up Internet access to do their homework. Literally walking to this McDonald's. The McDonald's being so overcrowded that they changed the hours to put a cap on how many kids could actually do their homework at one time. And I wanted to see it. I had read it in an article that was came out from the Community Advisory Commission, met with the commissioner, she told me the story, I was compelled and I went there. And I met Janice Flemmings, an African-American woman who has made her life's mission to not have this happen in her community.

So I've been there. I'm headed down to Daleville, Virginia to visit with some more rural broadband folks that are trying to bring broadband to places around Roanoke and a little further than Staunton that I'll be able to talk to some small providers are doing some

really interesting things in places like Halifax, Virginia. I've been to Lincoln, Nebraska and got a chance to talk to people from the Farm Bureau, broadband providers that were wiring cattle ranches. I hope in the next few months that I'll be in Cleveland, Ohio which right now has the lowest broadband availability in the country to see a little bit about why that is. I have plans to go to Alabama to see what it's like to live in the Blackbelt and not have broadband and possibly no water. So, I'm excited and I'm actually going to a tribal nation in the California area, a friend of mine invited me out there as well as area in Chattanooga where I'll be able to look at a county that has the highest rate of opioid addiction to see people using their phones to enable them to again get access to health care.

My book is just about America. It's about America, and it's about the people who are quickly becoming digitally invisible because they live in America and they don't have access. So I ask all of the listeners to follow me, I'm hoping to do more photos of Brookings, hopefully another photo story, hoping to capture some video footage and hoping to learn a lot about the fabric of our nation as I do this and to bring light to a problem that I think some of us take for granted every day and to tell that story. I'm so gracious to those of you who have read the photoblog, and to those of you that will for the comments. Thank you.

DEWS: How can people get in touch with you, how can they follow you on Twitter.

TURNER-LEE: I'm @DrTurnerLee. And the hash tag is #DigitalDivideTour. I'm not savvy at social media, yet. My 6 year old is teaching me how to do all this. And on Instagram there's a digital divide tour site that I'll be uploading photos.

DEWS: All right, terrific. Nicol, its fascinating and important work, and I look forward to speaking with you more about it in the months to come. And I want to thank you for sharing your time and expertise with us today.

TURNER-LEE: Thank you, Fred!

DEWS: You can find the Brookings photo essay by Nicol Turner-Lee with photos by Mark Williams Hoelscher on our Web site. Look for "Closing the Digital and Economic

Divides in Rural America"

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DEWS: What will geopolitical competition look like in the decades ahead? Is a major war between, or among great powers inevitable? In his book, "All Measures Short of War", author and Brookings Senior Fellow, Thomas Wright, who directs the Center on the U.S. and Europe at Brookings, argues that major powers will try to avoid military conflict while competing with measures including cyberwar, economic war, proxy war, and coercive diplomacy. To talk about his book, just released in paperback with updates relevant to the Trump administration, here are Tarun Chhabra, a Fellow with the Project on International Order and Strategy and Tom Wright. And now, here's Tarun.

CHHABRA: Thank you, Fred. Tom, I'm delighted to talk to you today about your new book. If you don't mind, why don't we just go back to when you conceived the idea of this book "All Measures Short of War"? The book came out in 2017, but you were thinking about writing a book like this I know for at least a few years before that. So take us back to the genesis of the book, what compelled you to write it?

WRIGHT: Thanks Turan, pleasure to be talking with you about this today. I guess the ideas are sort of bouncing around for several years before, probably I think directly sort of relating to some of the events in the world that took place that showed an increase competition with China and Russia, and having sort of worked in grad school and afterwards on more inclusive ideas of an inclusive international order and responsible stakeholder ideas that China would become a part of the order at some point. I always had a little bit of skepticism about, and then that skepticism grew as events progressed and this time in the South China Sea or in Ukraine or elsewhere. And I was also particularly interested in how all this would unfold, given the level of interdependence between the major powers, particularly on this sort of political economy front. So that I think was the background, and then of course I think you know 2013-14 with the events in Crimea and Xi Jinping's rule in

Beijing sort of crystallized it more and then I of wrote it in the run up to the 2016 election and did a slight rewrite of the introduction just after the election. And then it came out in May and then I wrote a new preface for paperback trying to look at some of the updates to the unfolding competition between the United States, China, and Russia over the last couple of years including, of course, the actions of the Trump administration.

CHHABRA: Now, between the publication of these two additions, two U.S. government documents came out, the National Security Strategy and the National Defense Strategy, both issued by the Trump administration. And there seemed to be some echoes from your book in both of those documents, so what would you say those documents get right and get wrong in thinking about a new era of strategic competition between great powers?

WRIGHT: Yeah I think it's interesting that over the last few years there is now, if not a consensus, definitely a majority view of the foreign policy community that geopolitical tensions are rising and the great power competition it's a very significant part of U.S. national security. That wasn't the case maybe five or six years ago. I think it is now, and it's a bipartisan thing. We did a report at Brookings in the run up to the 2016 election that basically came out in the same place that had senior people from both sides of the political divide. So the National Security Strategy, National Defense Strategy, I think we're reflecting that sort of shift in opinion. But I think it's only the very early days, like what they basically said was a declaration that great power competition is the primary challenge. But they didn't say all that much about the nature of the competition or how it would unfold. And I think that's not particularly surprising, you know, because in the Cold War, people at the very beginning recognized there was something, but they didn't recognize his shape or character of it. And so we're only at the very early stages of this, it will be very different than the Cold War than other periods. And it's going to take us some time to unpack this, which is what I was trying to have an initial cut as in the book. But I think the strategies get right the idea that there is

the competition. I think where they fall short is really particularly the National Security Strategy, is talking about the purpose of the competition: what are the stakes? They try not to talk about international order or liberal international order or rules based order. They talk more about sort of American interest, but it's sort of unclear what those are. It doesn't really say very much about the economic component either. So I thought it was a good first cut, but it was only really a first cut. And the other point which of course is very striking, is this was probably the first national security document that I can remember that the president is completely disinterested in and seems not to have read and also never talks about. So it just really underscored this division in the administration between the senior officials, other than the president and then the president and both of them seem to have separate national security policies.

CHHABRA: One of the main theses of the book is that as this competition grows, you think we're still unlikely to see major war, hence the title of the book. So tell us a little bit about whether you still feel that way, have the events of the last couple of years kind of reinforced that view of yours?

WRIGHT: Yeah I think that's one area where I continue to think that that's basically right. I mean there's always the risk of conflict and it could happen inadvertently and one could easily imagine a crisis that would spiral out of control. But having said that, I think that most likely the base case scenario is a prolonged period for a decade or more of peacetime competition and countries will use, won't intend to have a general war, but they will use lots of tools and measures short of that including proxy wars like in Syria or cyber war or economic warfare, both on the sanctions front, political interference and you know other types of active measures and so on and so forth. And the reason I think is that particularly for China and Russia, a major war with the United States I think will be potentially catastrophic for them, and they would worry that they would lose that and for the United States it would be catastrophic. Also, no side feels like they need that to accomplish their

objective, their objectives will be damaged if that were to occur.

And so they look to other strategies to talk about how that manifests itself sometimes. If you look at China in the South China Sea and China's building all of these islands and land reclamation in an actual war, all of that will be destroyed. You know and they would lose all of those. But those are actually useful for power projection if there is no war. You know because they are there are sort of a forward deployed presence. And so in some ways, I think China's military buildup really relies upon, you know, conditions of peace to be sort of sustainable and to increase their influence in the region. So I think that its peace time competition but not sort of cooperative. So it's not peace as we normally would know. And again not the Cold War but some version of that that's increased tensions and much more contested.

CHHABRA: And one of the things you call for is trying to reach an equilibrium in which we're competing responsibly in this sense. So how are we doing?

WRIGHT: Well, before we get onto the last couple of years, I think it's really important to understand that the early period of any era of competition is usually the least stable, right. Because in that early phase, nobody quite knows where the red lines are, and they don't know the nature of the competition. And so in the Cold War, the period from 47 through to 62, the first 15 years were probably the most unstable and the most tumultuous and that was largely because no one quite knew what the spheres of influences were and what red lines could be respected or not. And also the effect of nuclear deterrence was being learned in real time. There was no… that body of work that we have now didn't exist prior. And so there was a lot of uncertainty and potential miscalculation. And this period is of course different in lots of ways, but it's similar I think in the sense that we are also sort of feeling around the dark, and we don't really know even how things are related to each other or the strategic importance of different crisis points, and our sort of challenges to learn that and then figure out how to compete responsibly.

I do sort of worry that we're at risk of under responding and over responding. And I think it a big challenge to sort of talk about the need to be more competitive without responding in a way that could lead to sort of existential challenges for our rivals. One example of that might be on the economic front. Right, I mean I think with China there are definitely economic differences there that need to be resolved and possibly resolved in a competitive way, and that sort of bring pressure to bear, but ultimately we do have an interest in a strong Chinese economy and we both have an interest in a strong healthy global economy. And so actively trying to undermine or destroy the Chinese economy I think would not be consistent, responsible competition. But how do you avoid that and still correct for the various imbalances and unfairness in the relationship? I think that's a big challenge.

CHHABRA: And where the couple of places we think we're under talked?

WRIGHT: We're not competing enough? Well I think we're really across the board. We definitely are not responding adequately to political interference. We're not working with allies on those questions. I think the U.S. lacks sort of a positive economic agenda post-TPP in the Asia Pacific. I think we could be doing a lot more in protecting democracies, particularly in Eastern and Central Europe and I think sort of articulating the modern version of what America's purpose, global purpose actually is like why you know is it just to uphold the status quo or is it something else? And so I think across the board, and then as you've written a lot as well on the technology front, sort of updating for changes in technology, particularly artificial intelligence and quantum technology, and those things I think we're still far behind on. So I think you know on a scale of 1 to 10 we're still pretty low.

CHHABRA: So let's talk about in particular you mentioned a moment ago this period being analogous to the early 50s and the early part of the Cold War. You say in the new preface to your book that it is not the Cold War, but the societal challenge may prove similar in scope and scale. So tell us a little bit what you mean by that.

WRIGHT: Yeah I think one thing I learned over the last two years that I didn't know

when I wrote hardcover version of the book is this, this competition would spill over into our societies. You know we've learned so much in 2017-18 about political interference and the way China is using its economic leverage to bring pressure to bear on companies and challenges to the free press and how some of these forces can be found in our own society as well. And what I really meant by that sentence, which I've written on in articles recently, is that the reason why Americans should care or think about this competition is not because the South China Sea is important or Ukraine is important, although they are to some extent, but it's because what we value here at home is challenged by some of these external forces overseas, the sort of neo-authoritarian group of countries that I think has a very different vision of society. So it is a very different vision of basic freedoms, freedom of the press, of social media, of surveillance, of sort of monitoring their own citizens, of what companies can and can't do, and a lot of other issues. And so when we compete, we're basically competing to sort of advance free societies so the international system is safe for a free society to thrive and prosper in. And they I think are those regimes, China, Russia and others are competing to ensure the international system is safe for authoritarianism and to some extent they're incompatible, right. It'd be nice if they weren't so fundamentally incompatible, perhaps. But I think they are actually compatible. I think that's what's driving a lot of the competition that's why China and Russia are acting the way they are, and I think that's why the United States increasingly will be pushing back with Trump as somewhat of an exception.

CHHABRA: And to what extent do you see this as an affirmative strategy in either Beijing and or Moscow to see authoritarianism on the march around the world, or do you see it more as making the world safer from authoritarianism in some sense, but how much should we be reassured by that versus a more affirmative and aggressive strategy?

WRIGHT: Well I think it's the latter. I think they basically concluded that if liberalism succeeded like the classical, liberal internationalism succeeded globally, that that will be an existential threat to their regimes, largely independent of the decisions that Washington or

Berlin or London took. Just the nature of our system is such that it would undermine them. And the example I was sort of uses in 2012, when *New York Times* uncovered corruption in the Chinese Politburo that was deeply destabilizing for China that was not a decision taken by President Obama. That just happened. So I think they believe that this system is very dangerous for them and I think they're basically right about that, right. I mean the regimes are right that ultimately the liberal order will spell the end of authoritarian regimes in major countries. And so they decided to push back because they were basically insecure, and we of course decided not to accommodate them because the cost of accommodating them is far too great. So both sides I think from their own perspective are acting rationally. Obviously, I think the U.S. position is preferable for moral reasons, but I think each side is acting out of a sense of their own self-interest. Unfortunately, I think that that doesn't necessarily give us assurances right, because historically countries that are acting out of insecurity are at least, if not more dangerous than countries that are acting out of naked aggression, I mean most aggression a lot of aggression in international history is driven by insecurity sense a country surrounded or they can be safe even the most aggressive ones. So I think it is basically a security dilemma. But it's hard to find a way out of this.

CHHABRA: So not long after the upcoming midterm elections in November we'll be barreling into the 2020 primary season, and already you're beginning to see some debate about what the future of foreign policy should be. On the left, obviously there's a big debate happening on the right as well, to some degree on both sides you're seeing calls for retrenchment, even allowing the Chinese to essentially have a sphere of influence in East Asia. This is all happening at the same time that you're seeing great power competition is increasing. So what gives?

WRIGHT: Yeah I think that's going to be the debate. You know and I think that on the Democratic side, I think there will be a robust debate about it. I think it's interesting that Bernie Sanders had not bad a few weeks ago, in which he basically embraced the concept

of great power competitions and progressives need an alliance to push back against sort of a new authoritarian axis. That's sort of threatening core progressive values. And so that was interesting because he could have gone in the direction of retrenchment, but he didn't. He was there in the last election. So I think it will be interesting to see on the Democratic side, because of the role that Russia played and everything else, you know if candidates embrace some notion of pushing back or if they go in the direction of retrenchment I think that's still a very open question. On the Republican side, you know, as long as Trump is the incumbent and the nominee, I think there won't be much change there. But I don't think Republicans basically share his theory of the case on Russia in particular. Now obviously in China, he's more forward leaning, but on China, Trump personally really only cares about the economic side. He's not particularly motivated by the geo political component.

CHHABRA: Well I'm afraid that's all the time we have today but I really can't recommend more Tom's book, "All Measures Short of War", whether you're deeply engaged in the debates about U.S. foreign policy or whether you to them, Tom is really one of our most gifted stylists and writes in an incredibly accessible way and it's well worth your time. Thank you very much, Tom.

WRIGHT: Thank you.

DEWS: "The Brookings Cafeteria" podcast is the product of an amazing team of colleagues, including audio engineer and producer Gaston Reboredo, with assistance from Mark Hoelscher. The producers are Brennan Hoban and Chris McKenna. Bill Finan, Director of the Brookings Institution Press, does the book interviews, and Jessica Pavone and Eric Abalahin provide design and web support. Our interns this semester are Churon Bernier and Tim Madden. Finally, my thanks to Camilla Ramirez and Emily Horne for their guidance and support. "The Brookings Cafeteria" is brought to you by the Brookings Podcast Network, which also produces "Intersections" hosted by Adriana Pita, "5 on 45", and our events podcasts. E-mail your questions and comments to me at BCP@Brookings.edu. If you have

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