



# ON THE RIGHT TRACK

The direction taken by the new FCC regime in the US marks a radical shift from previous administrations on net neutrality and broadband policy. **ROSLYN LAYTON** says it is on the right track and deserves a fair hearing

**A** report in the mainstream news coverage in the US and European Union over the first 100 days of the current American presidency suggests an unprecedented level of negativity.<sup>1</sup> The study's author and noted political scientist Thomas Patterson observes that media prefers to cover the "Washington power game – who's up and who's down, who's getting the better of whom" with a negative bias rather than substantive policy issues.

The media's negativity and myopia extends to its reporting of the actions in the first 200 days of the now Republican-led Federal Communications Commission (FCC). Consider the reporting of the Washington Post on broadband privacy, which incorrectly describes in multiple stories what broadband providers can see and do with network information, and over-reports on net neutrality at a rate of 3 to 1 versus other FCC issues; and the New York Times calling the FCC's agenda 'anti-consumer'. An empirical review of the agency's actions for the same period demonstrates that such reporting is not only negative, but false. In fact the agency undertook some 50 actions to close the digital

**FCC chair, Ajit Pai, flanked by commissioners Mignon Clyburn and Michael O'Rielly**

divide, modernise reporting requirements to reduce \$800 million in paperwork costs, promote innovation in new technologies, protect consumers and public safety, and enhance transparency.<sup>2</sup>

In contrast to reporting which seems to sew division, closing the digital divide is an issue with broad support across political lines. While the mainstream media has given this little attention, the FCC chair, Ajit Pai, has made closing the digital divide his objective, a goal he outlined last year in a 'digital empowerment agenda'. Elements of this proposal were recently examined by 35 policy experts at Aspen Institute annual Communications & Society Program in August 2017, who found much to support, observing the importance of local control and interagency cooperation.

The digital empowerment agenda is informed by decades of trial and error of government intervention in attempts to provision communications services for the poor. The proposed means are decentralised by design, removing the FCC as a gatekeeper, but demands that both private and public sector actors make significant

← commitment and uphold responsibilities. There are high expectations of the private sector to invest, provided it has the appropriate incentives, and government actors at the federal, state and local level must deliver as well, removing obstacles which may be counterproductive to the public interest of broadband empowerment for the poor.

Before looking briefly at the overall digital, or broadband empowerment agenda, I discuss the issue that is most controversial at present in this agenda, net neutrality.

### OPEN INTERNET VS INTERNET FREEDOM

While American communications policy has been successful in igniting a digital revolution and fostering 25% of world's investment in broadband,<sup>3</sup> the gains don't flow equally to all Americans, and the open internet policy, while well-intentioned, has had negative consequences, which the FCC among others, has documented.

The media mischaracterises the FCC's proposed Restoring Internet Freedom initiative as a state of no regulation, but the commercial internet market has never been unregulated in the US. At issue is whether broadband access providers can be policed through antitrust/competition standards or whether they must comply with preemptive common carriage law. The current FCC's effort merely wishes to restore the internet to the competition law framework and layered enforcement that stewarded the internet's success from 1996-2015.<sup>4</sup> During this time the internet became an unprecedented and unqualified success through bipartisan policy,<sup>5</sup> and was subject to antitrust enforcement by the Department of Justice and the Federal Trade Commission (FTC).

In its 2015 Open Internet Order, the FCC claimed that internet service providers have the 'incentive and ability' to deter 'openness', but if that is the case, it is odd that the FCC would remove the internet from the jurisdiction of federal and state competition authorities. Ironically, the FCC's imposition of Title II common carriage rules on the internet removes these applicable layers of law enforcement and consumer-protection standards. It also stripped consumers of online privacy protections that had been enforced by the FTC for years without any evidence that the regime was inadequate.

The 2015 Open Internet Order declared that the internet is an extension of the telephone network and therefore deemed that common carriage obligations under Title II of the Communications Act apply. While the appeals court upheld this view, nine lawsuits continue to the Supreme Court including one from Daniel Berninger, the co-inventor of voice over IP (VoIP), whose HelloDigital application has been banned by the FCC as it requires paid prioritisation to work. In 2004 Berninger and colleagues secured the Pulver Order, which prohibits the FCC from obligating VoIP to common carriage.

Noted Columbia University historian of communication networks, Richard John, observes that common carriage "was never intended as a

one-size-fits-all solution, and is by no means the only regulatory tool in US policymakers' toolkit. Net neutrality is predicated on a cartoonish caricature of the history of American communications that has long exaggerated the importance of garage-based startups, while discounting the innovative potential of the digital behemoths that dominate cyberspace today."<sup>6</sup> In any case the historical circumstances for common carriage differ significantly from today's competitive markets in which the internet is available via different technologies. The door does remain open to create legislation on net neutrality in the US, as some 50



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nations have done, should Congress wish.

After two years of the Open Internet Order, the FCC has reported a number of negative impacts of the policy, including the loss of 75,000 jobs from companies cancelling plans to deploy infrastructure and a decline of investment by the 12 largest broadband providers of 5.6% or \$3.6 billion relative to 2014 levels. A related counterfactual analysis suggests that the loss is more likely 20-30% or \$30-40 billion as companies have foregone investment and innovation opportunities in fear of FCC reprisal during 2011-2015.<sup>7</sup>

Moreover, 22 small broadband providers (serving fewer than 1,000 customers each) complained that policy hangs over their business like a 'black cloud'.<sup>8</sup> Unwittingly the policy has increased the digital divide by increasing cost to end users, arbitrarily changed the definition of broadband speed, and raised barriers for market entry.<sup>9</sup>

Separately the peer-reviewed academic literature on net neutrality is not favourable to the FCC's 2015 policy, but suggests that policymakers take a nuanced view.<sup>10</sup> The literature shows that net neutrality is not unambiguously good; sometimes the policy could be helpful, but at other times not.<sup>11</sup> The internet has many multi-sided markets with a multitude of opportunities for the abuse of market power including app stores, operating systems, content providers, and so on; broadband providers are not the sole actors of concern.

Moreover, hard rules can preclude the benefits of competition, partnerships, and differentiation that emerge when actors across the value chain depart from purely 'neutral' or pro-edge arrangements. The policy is frequently detrimental to consumers, particularly in prohibiting their ability to tailor their broadband experience across a range of parameters including price, quality, service, and security – not just speed, which the 2015 FCC misleadingly claimed is the relevant metric.

A new proceeding has been launched on the definition of broadband<sup>12</sup> and ideally will allow consumers to weigh in on what they believe it is. Additionally the FCC closed the open-ended investigations of zero rating which targeted the plans, products and services that consumers love – free music and video. Separately the European competition authorities published a definitive report

on zero rating, some 200 pages, finding that it is not inherently anticompetitive.<sup>13</sup>

Not only did the FCC not take the complexion of the peer-reviewed data into account in making the 2015 policy, it excluded economic analysis. The FCC chair plans to rectify this oversight with an office of economics and data. For most regulators, the academic grounding for net neutrality policy is based largely on a selection of papers funded by Google, which in many cases, the authors failed to disclose. In any case, little to no empirical investigations have been made of the policy across countries, even though many nations have had rules in place for years.

My research at Aalborg University, Denmark, represents a preliminary step to address the gap between research and policy. I investigated the results of net neutrality before and after rules were imposed to see whether the policy delivers the promised innovation at the edge. The investigation found significant statistical support for 'soft' voluntary net neutrality rules and increased mobile app innovation, but not for 'hard' net neutrality. Countries that adopted net neutrality through legislation and regulation did not display an increase in mobile app development.<sup>14</sup> The hope is that other regulators and researchers will conduct empirical investigations to test their assumptions.

A separate study on the mobile app economy notes that about 95% of the value of the mobile app economy is concentrated in just ten markets.<sup>15</sup> While this was not a study about net neutrality policy, the high-level results suggest that benefits from the policy do not necessarily flow to the countries that make rules. Countries in Latin America that have had hard net neutrality rules for some time comprise a small fraction of the value of the mobile app economy, while China, which has no rules, continues to count for an increasing share of mobile app innovation. China became the world's largest app market by downloads in 2016, with more than 50 billion downloads and some \$10 billion in revenue.

Net neutrality is also the subject of activism, such as by Avaaz, a US-based advocacy organisation which took credit for delivering many of 480,000 comments to the consultation by BEREC, the European regulators' body, on net neutrality guidelines. Now that activism is professionalised and operated with world class online marketing platforms, comments for regulatory proceedings can be sourced from other nations or manufactured (i.e. faked). As of writing, public comment for the FCC's Restoring Internet Freedom proceeding numbers over 20 million submissions, probably a world record for a telecoms regulatory proceeding. This effort of politicking at the regulator's comment boxes is troubling for it violates the notion that the regulator is expert and independent. Moreover the misguided focus on quantity, not quality, can be damaging to ensuring services for the people least able to express themselves online, namely the poor, old and minorities. A number of academic investigations show that net neutrality proceedings are dominated by a digital elite,<sup>16</sup> a trend that

## ALTERNATIVE VIEWS ON US POLICY

- Each year the FCC is tasked with an inquiry into whether Americans have reasonable and timely telecoms services, and is now proposing to reassess the overall broadband standard (currently 25 Mbps), mainly because mobile broadband is increasingly substituting for fixed connectivity.<sup>12</sup> Not surprisingly, Democrat commissioner, Mignon Clyburn, has said: "We sell consumers short by proposing a speed benchmark that is way too low," and she is sceptical that an area is 'served' if mobile or fixed is available, as many cannot afford a fixed line.
- Timothy Wu, who coined the term 'net neutrality', has written that "...one looks in vain for the problem that needs to be fixed... [net neutrality] has sheltered bloggers, nonprofit organisations like Wikipedia, smaller tech companies, TV and music streamers, and entrepreneurs from being throttled by providers that own the pipes... The policy's contributions are not just cultural but also economic: television has been revitalised, and waves of successful internet start-ups have returned America's high-tech industry to unquestioned global leadership." See [nyti.ms/2oPtFwc](http://nyti.ms/2oPtFwc)
- Is the broadband marketplace robustly competitive? Do consumers readily and frequently choose between and among wireless and wireline broadband carriers? A litmus test, says Rob Frieden, professor of telecoms and law at Penn State University, "is when broadband consumers cut the wireline cord at home and rely solely on their 'unlimited' wireless subscriptions, we will have reached the promised land." See his blog at [telefrieden.blogspot.co.uk](http://telefrieden.blogspot.co.uk)
- Anant Raut, a former attorney at the Federal Trade Commission (FTC), writes: "Although ambitious future FTC leadership could certainly try to use the tools they have to enforce the core principles of net neutrality, it would necessarily be more limited and more ad hoc than the protections that exist now." [bit.ly/2JSPYnD](http://bit.ly/2JSPYnD)
- Tom Struble, of free market think tank R Street, considers that partisanship could be better resolved by better data on broadband deployment. "Bad data make for bad regulatory policy." [bit.ly/2wPZNnj](http://bit.ly/2wPZNnj)
- At stake is a digital divide in the US, which all parties agree exists. Context was given in 'Without a Net: the digital divide in America', which aired recently on National Geographic. See [digitaldivide.com](http://digitaldivide.com)

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regulators exacerbate with the purposeful use of platforms such as Reddit which bias policy options to favour specific groups over others.

## BROADBAND EMPOWERMENT

Closing the digital divide is an unassailable idea in communications policy, and yet after many attempts, a gap remains. The FCC itself reports: "Almost 34 million Americans don't have access to the broadband networks needed to fully participate in the digital economy. Americans living in the poorest counties are twice as likely to lack access as those living in the most well-to-do. And access traces our rural-urban divide: 39% of rural Americans and 41% of those living on Tribal lands lack adequate access."

America is famous for the broadband-enabled tech hubs of Silicon Valley, Seattle, Austin, Boston and so on. The empowerment agenda seeks to capture that spirit of innovation and create those same opportunities for other parts of America, whether urban cores or rural towns, and to unlock digital opportunities for job creation and civic engagement. These include a series of concepts for digital opportunity zones, mobile broadband in rural

← areas, removing regulatory barriers to broadband, and promoting entrepreneurship and innovation opportunity zones. These goals address the availability and affordability of networks, the readiness of users and communities, and relevance of services. For a global methodology for countries beyond the US, see the Inclusive Internet Index.<sup>17</sup>

Pai's efforts demonstrate open innovation applied to broadband policy, recognising that the solutions to closing the digital divide reside not necessarily in the FCC, but in the knowledge of a multitude of actors on the ground. Henry Chesbrough defined open innovation with his groundbreaking book after years of studying IBM and how the company reinvented itself by looking outside its walls for partners for new products and services.<sup>18</sup> Thus, Pai is employing the open innovation model by looking for the answers outside of its regulatory silos in a quintessential example of 'open government'.

The new FCC recognises that meeting the vastly different broadband needs of 320 million Americans requires a bottom-up approach. That more than 380 people from all walks of life volunteered to serve on Pai's Broadband Deployment Advisory Committee exemplifies the interest and enthusiasm to help the FCC achieve its goal.

An opportunity zone can be a neighbourhood, rural area or city; any place where household income falls below 7% of the national median. The goal of designating such a zone is to mobilise financial and human capital for the benefit of low-income communities, offer accelerated depreciation schedules and lower capital gains taxes to incentivise investments, encourage hiring through the rightsizing of payroll taxes, loosen zoning restrictions, and hold down property taxes to encourage the renovation of buildings and property. There are other incentives for enterprises of all kinds to take advantage of networks and create jobs in the opportunity zones.

The FCC can make a difference just by bringing attention to the issue and serving as a facilitator to the various actors that need to work together, particularly a myriad of agencies which offer subsidies related to digital empowerment, including the Departments of Commerce, Transportation, Agriculture, Housing and Urban Development, and Homeland Security. Many community actors are emboldened to take action even without federal help, as the model of the opportunity zone offers a template for community collaboration. The proposed model incentivises civic leaders to publicise that their communities are open for jobs, opportunities and economic growth.

Significant work in the US Congress has been done to identify and remove barriers and federal, state and local level. Notably, two-thirds of spectrum held by the federal government and one-third of land owned by federal government is not available or accessible to network providers. The Broadband Development Advisory Committee has been tasked to develop model codes for states and municipalities. In addition, the Advisory Committee on Diversity and Digital Empowerment, an initiative revived by Pai, seeks to ensure that opportunities to



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he said: "When I entered this position, the diversity committee was no more. It hadn't met since 2013, having been disbanded under the prior administration. That didn't work for me, so I decided to re-charter the committee."

As Pai has also said, "High-speed internet access, or broadband, is giving rise to what I have called the democratisation of entrepreneurship. Never before has there been such opportunity for entrepreneurs with drive and determination to transcend their circumstances and transform our country. Broadband can level the playing field." Pai has recently travelled around America's heartland, taking in 17 states on a 'digital divide' tour, and has name-checked a number of new apps that depend on connectivity, such as Bungii, an 'Uber for trucks', and Vigilias, which connects remote healthcare clinics with larger facilities, both products of Kansas, his home state. (As he has said: "I grew up in a small town in rural Kansas on a dirt road outside of a town called Parsons. I was keenly aware of what it was like to be on the wrong side of the digital divide.")

Accelerators too are sprouting across the country, including the Innovation Depot in Birmingham, Alabama; the Entrepreneur Center in Nashville, Tennessee; and Rev1 Ventures in Columbus, Ohio.

The so-called Rust Belt, the deindustrialised area from the Great Lakes to the upper-midwest, is a particular area of focus for broadband. Pittsburgh has transformed itself from the Steel City into a regional silicon centre. Cincinnati's Brandery has developed a leading accelerator; its companies have raised over \$120 million and created hundreds of new jobs.

Closing the digital divide might not create sensational headlines, but it is the core of communications policy. Fortunately, specialised media have emerged to cover it. In any case, chairman's Pai's true agenda should be known and is worthy of support.

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- REFERENCES** 1 Patterson TE. News coverage of Donald Trump's first 100 days. Shorenstein Center on Media, Politics and Public Policy; 18 May 2017. bit.ly/2qAxz4M 2 What the media missed at the FCC in the first hundred days. AEIdeas; 31 May 2017. bit.ly/2w6qDrP 3 Layton R (2014). The European Union's broadband challenge. American Enterprise Institute. bit.ly/2yp64IQ 4 Restoring Internet Freedom. Notice of proposed rulemaking. FCC; 23 May 2017. bit.ly/2rdL8nA 5 A good news story: the internet. AEIdeas; May 31, 2013 bit.ly/2w5Yph5 6 The next net neutrality debate. Bloomberg; 10 July 2017. bloom.bg/2heKFhp 7 Ford GS (2017). Net neutrality, reclassification and investment: a counterfactual analysis. Phoenix Center for Advanced Legal & Economic Public Policy Studies. Perspectives. bit.ly/2oAgStn 8 See letter to Ajit Pai at: bit.ly/2oMuzdz 9 Layton R et al. (2015). Zero rating: do hard rules protect or harm consumers and competition? Evidence from Chile, Netherlands and Slovenia: ssn.com/abstract=2587542 10 Easley RF et al. (2016). From net neutrality to data neutrality: a techno-economic framework and research agenda. bit.ly/2ypPteF 11 Jaminson M et al. Economic scholars' summary of economic literature regarding Title II regulation of the internet. bit.ly/2xvhqNF 12 Inquiry concerning deployment of advanced telecommunications capability to all Americans in a reasonable and timely fashion. FCC; 8 August 2017. bit.ly/2vkQv5r 13 European Commission (2017). Zero-rating practices in broadband markets. bit.ly/2faHuT0 14 Layton R (2017). Which open internet framework is best for mobile app innovation? Aalborg University. bit.ly/2faHuT0 15 Pon B (2016) Winners & Losers in the Global App Economy. Caribou Digital Publishing. bit.ly/1VBzVva 16 Net neutrality: a numbers game. AEIdeas; 25 July 2016. bit.ly/2f9Kj7 17 The Inclusive Internet Index. Economist Intelligence Unit. theinclusiveinternet.eiu.com 18 Chesbrough HW (2005). Open Innovation: The new imperative for creating and profiting from technology. Harvard Business Review Press.