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CATCHING THE THIRD WAVE: A TALE OF TWO TECH-POLICY BATTLES

Mike Godwin

INTRODUCTION

In his recent book "The Third Wave," AOL founder Steve Case outlines what the latest generation of technology companies will need to do to succeed, stressing the importance of proactively and constructively engaging with government policy and regulation.[1] Unlike so-called "second wave" companies, those in the "third wave" – that is, companies that use the internet to deliver real-world goods and services – will not enjoy the luxury of being able largely to ignore the policy landscape. As Case puts it:

> Third Wave entrepreneurs will need to engage with governments. The challenge, of course is that few founders are policy wonks, and even fewer have the time (or desire) to become policy experts. They'll have to hire them—or at least rely on them—from the beginning.[2]

1. Steve Case, "The Third Wave: An Entrepreneur's Vision of the Future," Simon & Schuster, April 5, 2016.

2. Ibid.

Case notes the "first wave" of internet companies had to fight legislative, regulatory and legal battles to build the infrastructure and policy frameworks that made internet access increasingly affordable for everyone. By contrast, the second wave could take advantage of those successes to build new applications and platforms, such as Google's search engine, various blogging services and social networks like Facebook. In that environment, engagement with government seemed less necessary—build the killer internet platform and the world would simply beat a path to your door.

The third wave will require re-engagement with the material or "offline" world, because it includes delivery of physical products and services. Case's third wave includes the so-called "internet of things," but he asserts that it's really the "internet of everything." This "three wave" taxonomy is a good starting point for today's tech entrepreneurs who want to offer new internet-based and internet-mediated services.

Two recent public-policy failures – one involving a second-wave company (Facebook) and one centered on a third-wave company (Uber) – offer lessons in how tech companies will have to build and maintain new, positive public-policy frameworks. This paper aims to show what Facebook's recent regulatory defeat in India and the electoral loss by ridesharing companies Uber and Lyft a few months later in Austin, Texas, have in common.

There are striking similarities in the two public-policy setbacks, from which entrepreneurs should learn how (and how not) to advance pro-market, pro-access, democratic policies in an era in which governments increasingly see themselves as playing an essential mediating role. In many policy environments, it may be less than helpful to take a simplistic anti-regulatory approach. Even strategic approaches that have worked in other contexts will need to be fine-tuned to the specifics of each unique political environment. Doing so is not merely good politics—it's good policy.

One key lesson both of these regulatory disputes teach us is that neither having the best intentions nor having the right facts can guarantee public-policy success. Even an initiative

that begins with a groundswell of public support and good-will for regulatory flexibility can, if poorly executed, lead to the opposite result, with unforeseen negative consequences both for policymakers and for citizens.

This paper analyzes some of the striking parallels between the zero-rating debate in India, which resulted in regulation that categorically outlawed services such as Free Basics and Wikipedia Zero, and the ridesharing debate in Austin, which resulted in the popular services Uber and Lyft opting to with-draw their now out-of-compliance services from the city.

INTERNET AND MOBILE IN INDIA

The world's largest internet companies have faced repeated challenges in their attempts over the past decade to figure out the vast collection of peoples, languages, cultures and marketplaces that constitute modern India.

Steven Levy's 2011 book about Google, "In the Plex," offers a striking account about a junket of 22 Google employees who visited a village 30 miles from Bangalore and were greeted by the village's entire population, not one of whom possessed a personal computer.[3] Urged by group leader Marissa Mayer – then a senior executive at Google before taking the top position at Yahoo Inc. five years later – the employees tried to engage the villagers in conversation about how Google provides information and other services to internet users. At one point, Levy writes, one of the villagers seemed to grasp what the employees were describing and held up his mobile phone and pointed to it. As Levy writes:

> The little connectivity meter on the phone display had four bars. There are significant swaths of the United States of America where one can barely pull in a sig-nal—or get no bars at all. But here in rural India, the signal was strong.

But not all of rural India is so well-connected. While up to 400 million Indian citizens have internet access, almost three times as many do not. But Levy's account underscores an important point: the odds are high that the first and most frequent experience of the internet that India's unconnect-ed millions will have will be through a mobile device, using the mobile telephone infrastructure. Rather than expand-ing internet access first and foremost through wireline tele-phone and cable television networks — using copper wire and coaxial cable, as European and North American internet providers did — Indian companies, working within the gov-ernment's regulatory framework, likely will provide wire-less internet first, as the material cost of building wireless networks is lower.

Nonetheless, the cost to build sufficient wireless access to reach India's far-flung rural and provincial populations is staggering. Building radio towers to bring mobile-telephony and broadband access to the more remote villages in India likely will top $100 billion.[4] Even if the Indian government resolved to spend all the money saved in its Universal Service Obligation Fund for this purpose, the amount totals perhaps no more than $6 to $8 billion.[5]

As in other developing countries, India's internet access has been hampered by a lack of physical infrastructure needed to support broadband infrastructure. The villagers in Levy's account may have had internet access in 2007, but they were only 30 miles from a major urban center; building out to more remote villages and settlements is a harder problem, requir-ing construction of many more towers to support broadband wireless internet. Making the capital investments to reach the rural and village populations who arguably need new connectivity the most is generally uneconomical, as these are the populations that most lack the resources to pay for that connectivity. Multiple approaches are needed to solve a range of problems at more or less the same time. Few gov-ernments in developing countries have put forth a holistic strategy to resolve this conundrum.

ZUCKERBERG AND INTERNET.ORG

The need for a comprehensive plan to provide expand-ed internet access to the developing world was the prime motivator behind Facebook founder Mark Zuckerberg's announcement in 2013 of the Internet.org initiative.[6] In the first video posted to the Internet.org website, Zuckerberg announced the project's goal as moving from "an economy that was primarily resource-based" to one that is "knowl-edge-based" – essentially charting a transition from primar-ily rivalrous to primarily nonrivalrous economies:

> Imagine a world where everyone had access to edu-cation, to health-care information—a world where farmers can look up information to improve their crop yields and students could consult Wikipedia to help out with their homework. The internet is really the backbone of the knowledge economy. If everyone had access to those basic tools, we'd all be able to benefit from all the innovation and creativity and ideas that everyone had. Our plan is to make basic internet ser-

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3. Steven Levy, "In The Plex: How Google Thinks, Works, and Shapes Our Lives," Simon & Schuster, April 12, 2011.

4. Boston Consulting Group, "The Mobile Economy India 2013," Groupe Spécial Mobile Association, October 2013. http://www.gsmamobileeconomyindia.com/GSMA_Mobile_Economy_India_Report_2013.pdf

5. Michael Lukac, "India's telecom regulator TRAI proposes $6 bln investment to widen broadband penetration," International Business Times, Dec. 9, 2010. http://www.ibtimes.com/indias-telecom-regulator-trai-proposes-6-bln-investment-widen-broadband-penetration-249956

6. Stuart Dredge, "Facebook's internet.org initiative aims to connect 'the next 5 bil-lion people,'" The Guardian, Aug. 21, 2013. https://www.theguardian.com/technol-ogy/2013/aug/21/facebook-mark-zuckerberg-internet-org

vices affordable so everyone with a phone can join the knowledge economy.[7]

Zuckerberg's vision of the knowledge economy may be unrealistic. Even if the world does manage to transition primarily to a knowledge-based economy, hard constraints on physical resources like clean water, energy and arable land will be a source of economic and political tensions for the foreseeable future. But to the extent that a fully participatory knowledge economy empowers many more people around the world to engage in solving these material-resource problems, connecting the planet's 7 billion residents will play a central role in how we find solutions. (Although Facebook itself is a "second wave" company, and Internet.org, considered in itself, is a "second wave" enterprise aimed at delivering information, Zuckerberg's argument for the knowledge economy is more clearly a "third wave" argument, since it focuses on using internet-based tools to deliver material-resource solutions.)

The difficulty Zuckerberg and others correctly diagnosed lay in how to get to from here to there. In developing countries, which often lack the century or more of telephony infrastructure enjoyed in the developed world, the problem is three-pronged:

1. A country with little telecom infrastructure generally has to take extraordinary steps to lure capital investment to build the capacity needed to support meaningful mobile internet access.

2. Even the cheapest means to build towers and allocate frequencies for mobile phone networks (the primary way these countries get online) are costly.

3. In countries with very low per-capita income, only a minority of citizens can afford anything beyond the most basic mobile service, usually just voice telephony and texting.

Zuckerberg's vision was to make the internet "one hundred times more affordable."[8] This would be accomplished by reducing the cost to serve data by a factor of 10 and reducing the amount of data required to provide full internet service by a factor of 10, as well. To lower the cost to serve data would require building more capacious mobile-phone towers, so that fewer were needed to reach underserved populations; reorganizing broadcast spectrum to use it more efficiently; and building lower-cost open-source mobile phones. Using less data would require increased reliance on data caching and compression on those mobile devices.

Before that dream could be achieved, there would first need to be new demand for broadband internet services from populations that typically have only subscribed to telecom providers to receive voice telephony, with maybe some texting. Just as the personal-computer industry's entrepreneurs discovered all the things computers could do only after the first personal computers were invented, internet entrepreneurs like Zuckerberg discovered the potential for social networking only after having enjoyed internet access for years. To get India's unconnected millions online, Zuckerberg reasoned, you would have to give them a sense that internet access can mean much more than just a different way to make calls or send messages.

There also were the challenges associated with luring capital to India to build broadband infrastructure, exacerbated both by the subcontinent's sheer geographic expanse and the enormity of India's population of roughly 1.3 billion. Between a fourth and a third of India's population has internet access, which roughly but not precisely correlates with the 32 percent of the country who live in urban areas.[9] Given India's highly literate population, most of whom are unserved or underserved by the country's internet providers, the nation appeared to be a prime candidate for Internet.org. As Rahul Bhatia wrote in *The Guardian*:

> From Zuckerberg's vantage point, high above the connected world he had helped create, India was a largely blank map. Many of its citizens – hundreds of millions of people – were clueless about the internet's powers. If only they could see how easily they could form a community, how quickly they could turn into buyers and sellers of anything, how effortlessly they could find anything they needed – and so much more that they didn't. Zuckerberg was convinced that Facebook could win them over, and even more convinced that this would change their lives for the better. He would bring India's rural poor online quickly, and in great numbers, with an irresistible proposition: users would pay nothing at all to access a version of the internet curated by Facebook.[10]

INTERNET ON-RAMP OR WALLED GARDEN?

For India's network-neutrality activists, the sticking point around Internet.org turned out to be its characterization as a "version of the internet curated by Facebook." Established as a partnership between Facebook and telecom manufacturers and providers, the idea was to give new users free access to

7. Internet.org, "Making the Internet Affordable," August 2013. https://info.internet.org/en/mission/

8. Dara Kerr, "Zuckerberg: Let's make the Internet 100x more affordable," CNet, Sept. 30, 2016. https://www.cnet.com/news/zuckerberg-lets-make-the-internet-100x-more-affordable/

9. World Bank, "Urban population (% of total)," United Nations, World Urbanization Prospects, accessed Oct. 15, 2016. http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=IN

10. Rahul Bhatia, "The inside story of Facebook's biggest setback," The Guardian, May 12, 2016. https://www.theguardian.com/technology/2016/may/12/facebook-free-basics-india-zuckerberg

some of the informational riches the internet offers. Zuckerberg laid out the logic of providing free basic services of this kind in an August 2013 white paper:

> Basic services need to be non-data-intensive, which means primarily text-based services and very simple apps like weather. Data-intensive experiences like video, streaming music, high resolution photos, websites with media and large files or app downloads consume the vast majority of all data. For perspective, all of the text in this document is less than 0.1MB and a 30 second video can easily be 50–100MB.
>
> Basic services also need to be tools that people use to discover other content. These services should have the property that by making data for them free, people will discover more new content and use meaningfully more data than they would have if they didn't have access to these basic services.
>
> Services like messaging, social networks, search engines and Wikipedia fit this definition well, but we're not prescribing any specific set of basic internet services. Instead, we believe that the more efficient we can make this model, the more access the industry can collectively provide to basic services. And even beyond basic services, all of the technology improvements and efficiencies will make it easier for everyone to access all internet services.[11]

The key to offering these basic services would be to persuade mobile telecom providers to allow subscribers to access the services without additional charges and without burning through whatever data allowances users had on their affordable mobile plans. The initial plan was for the Internet.org partnership, in collaboration with local telecom providers in developing countries, to provide a suite of free, low-overhead services and internet resources, similar to those offered through Wikipedia Zero.

One problem was that Internet.org had to decide at the outset which websites and services to include. The only services that work adequately in low-bandwidth environments – such as those in South Asia, the Asia-Pacific region, Africa and, of course, rural India — are those that don't require much bandwidth. Text-centric offerings like Wikipedia could manage these limitations reasonably well. But the graphics- and video-heavy sites that comprise much of today's internet don't do nearly as well. Some degree of gatekeeping would be needed, as the telecom-company partners didn't yet have the infrastructure or budget to give away every site and service on the internet for free.

Internet.org also included a lower-bandwidth, ad-free version of Facebook, called Facebook Zero. It's certain that users of Internet.org would want Facebook, with its potential to connect families and friends and to create and unite communities of interest. But Facebook Zero's inclusion vastly increased Internet.org's vulnerability to charges that it was a pseudo-philanthropic front designed to expand the company's subscriber base. (Of course, while Internet.org was condemned for including Facebook Zero, it likely would also have faced criticisms had it not done so, as the initial suite of website offerings was already quite small, and Facebook itself had been seen in other countries to drive demand for broadband.)

Osama Manzar, director of India's Digital Empowerment Foundation, who initially was an enthusiastic supporter of Internet.org, told *The Guardian* that he was disappointed with the rollout version, which allowed free access to only 36 sites, plus Facebook Zero:

> Crucially, Facebook itself would decide which sites were included on the platform. The company had positioned Internet.org as a philanthropic endeavour – backed by Zuckerberg's lofty pronouncements that 'connectivity is a human right' – but retained total control of the platform. 'Their pitch about access turned into mobilisation for their own product,' Manzar said.[12]

Manzar worried that Internet.org would give users a distorted idea of what the internet really is. New users would perceive it as, at best, a limited free-access "reference desk," while the larger public library of the internet remained out of reach. Users could buy data plans to access the full internet, which ultimately was the goal of providing free access to some internet resources. But this was given little weight by Manzar and other emerging critics of the Internet.org initiative, who also tended to look past Internet.org's concerted efforts to add new resources to its portfolio and to include services like Bing Search and BBC News, which incorporated millions of links to the full internet.

INDIA'S NET-NEUTRALITY ACTIVISTS STRIKE BACK

While some critics of Internet.org began as supporters, other – like Nikhil Pahwa, editor of the *MediaNama* website – were skeptical from the outset. Pahwa and like-minded critics charged the initiative with being a Facebook marketing scheme framed as a philanthropic enterprise — perhaps even amounting to "economic colonialism." Many Internet.org critics labeled it a "walled garden," which new users might never be able to see past or escape. (Similar fears had been

11. Mark Zuckerberg, "Is Connectivity A Human Right?," Internet.org, Aug. 20, 2013. https://scontent-lga3-1.xx.fbcdn.net/t39.2365-6/12057105_1001874746531417_622371037_n.pdf

12. Bhatia, 2016.

articulated two decades earlier in the United States when America Online was a dominant internet provider, but as it turned out, access to the larger internet, including through AOL's own web browser, ultimately disrupted AOL's domi-nant position.)

Network-neutrality activists in India began to focus on what resources, applications and content they presumed Internet.org might block or against which Internet.org somehow would compete unfairly. Any departure from the principle that one should charge the same price for bits you send or receive, regardless of the service, application or resource you're using – even the zero-rating approach, in which there is no cost to use designated services — was deemed to be inherently anti-competitive. The activists pushed India's telecom regulator to begin an inquiry into whether services like Internet.org need to be regulated. Worried that the Telecom Regulatory Authority of India (TRAI) would decide the issue in favor of the phone companies, Pahwa began reaching out to activists and academics to organize a public campaign against the initiative.

The common view among these activists holds absolute network neutrality to be a logical extension of the common-carrier principle applied to traditional telephone companies. But not all visions of network neutrality or the predecessor common-carrier frameworks are quite as stringent as the one Pahwa advocated through the movement's website, SaveTheInternet.in. For example, under the AT&T regulated monopoly in the United States, even though there was broad "neutrality" as to the content of telephonic communications, some subsidies benefited one class of users over others and differences in fees were used ultimately to subsidize buildout of the phone system to achieve "universal service." Zuckerberg argued this very point in response to the launch of the SaveTheInternet.in website:

> [S]ome people have criticized the concept of zero-rating that allows Internet.org to deliver free basic internet services, saying that offering some services for free goes against the spirit of net neutrality. I strongly disagree with this.

> We fully support net neutrality. We want to keep the internet open. Net neutrality ensures network operators don't discriminate by limiting access to services you want to use. It's an essential part of the open internet, and we are fully committed to it.

> But net neutrality is not in conflict with working to get more people connected. These two principles —

universal connectivity and net neutrality — can and must coexist.[13]

That response didn't satisfy critics in the now-growing Save The Internet movement, which began criticizing websites and services that initially sought to be part of Internet.org, some of whom pulled out in response to the criticism. Wikipedia, which had created its own separate arrangements with mobile providers to offer Wikipedia Zero, began to make a point of stressing the differences between their narrow and noncommercial zero-rated services and those of Internet.org. It was clear that the Wikimedia Foundation believed it was toxic to their own initiative to be seen as too much like Internet.org.

Although they regarded the net-neutrality activists' criticisms as unfair, Zuckerberg and Facebook quickly tried to reposition Internet.org. Within a month, Zuckerberg announced Internet.org was being refitted as a "platform" whose goal was "to allow more people to experience the benefits of being online." New content-neutral, low-bandwidth guidelines would admit any service that met the platform's technical specifications. In a May 2015 video (with optional Hindi subtitles) to announce the changes, Zuckerberg characterized the new open-standards version of Internet.org as "the next step" that would allow "any compatible service" to become part of Internet.org "across the whole world." But he also made his irritation plain:

> We have to ask ourselves 'What kind of community do we want to be? Are we a community that values people and improving people's lives above all else? Or are we a community that puts the intellectual purity of technology above people's needs?'[14]

In one stroke, Zuckerberg managed to say both that his critics did not give adequate value to people and that they were fanatics about "the intellectual purity of technology." What he did not do is find common ground or acknowledge that the earlier version of Internet.org had deficiencies. The substantive improvements to Internet.org, now rebranded as "Free Basics," was overshadowed by those comments, which energized the critics even further.

Not even the addition of HTTPS, an end-to-end-encryption web standard protocol that wouldn't work well on some of the low-end phones Internet.org initially hoped to serve,

13. Mark Zuckerberg, Facebook post, April 17, 2015. https://www.facebook.com/zuck/posts/10102033678947881

14. Mark Zuckerberg, "Announcing the Internet.org Platform," Facebook Newsroom, May 4, 2015. http://newsroom.fb.com/news/2015/05/announcing-the-internet-org-platform/

satisfied the opposition.[15] Some opponents even argued that Facebook's initial choice not to include the encryption features was a deliberate attempt to make user data insecure.[16]

LESSONS FROM FREE BASICS IN INDIA

Ultimately, the critics won. After an extended consultation, TRAI ruled that "differential pricing" – the agency's blanket term that included zero-rated services like Free Basics, as well as just about any other internet service that treated some data as different from others in terms of pricing – would be categorically banned in India.[17] Zuckerberg declared that he and Facebook were "disappointed" by TRAI's decision but they would "keep working to break down barriers to connectivity in India" and elsewhere:

> Connecting India is an important goal we won't give up on, because more than a billion people in India don't have access to the Internet. We know that connecting them can help lift people out of poverty, create millions of jobs and spread education opportunities. We care about these people, and that's why we're so committed to connecting them.[18]

In fact, Free Basics has continued its efforts to provide zero-rated services in 40 other countries around the world, although none represents as large an opportunity as India's unconnected people (which may be over a billion, as Zuckerberg said, but has elsewhere been estimated as closer to 900 million).[19] In May 2016, Zuckerberg announced Free Basics would roll out in Nigeria, where there are some 90 million without internet access.[20]

It seems clear Zuckerberg hopes Free Basics will demonstrate enough success in expanding internet access in other countries that India and its telecom regulator will revisit whether strict network neutrality is the right path. It also seems clear from accounts of the Internet.org/Free Basics

debate in India that companies seeking to shape policy can learn **eight important lessons** from Facebook's setback.

1. **Listen, and show you are listening.** If you're a big, well-funded company seeking to shape public policy, it doesn't matter if you know for certain that your program is the right one; the public needs to know they are heard. Zuckerberg and Internet.org were nimble in improving their program in a hurry in response to criticisms, but were slow to acknowledge they learned anything from the critical feedback, including feedback based on incorrect assumptions about what Facebook was up to. When Pahwa was invited to meet with Ankhi Das, Facebook's head of public policy in India, and Kevin Martin, the former chairman of the Federal Communications Commission, his takeaway was "that Facebook was trying to understand how much I knew about Internet.org," and not whether his substantive criticisms deserved to be taken seriously.

2. **When you spend big to oppose a government action, your advertising campaign may become a central part of the story**. Facebook spent an estimated $45 million or so on its Free Basics media campaign in India,[21] much of which was perceived to be heavy-handed. The campaign was criticized by the country's advertising regulator, which sent a complaint letter to Facebook based on user allegations of "misleading claims." It's almost always better to invest your time and your public presence than your cash or your market power. Direct media access to Zuckerberg and other Facebook executives in India was tightly managed. More free-form and transparent contacts with the press, plus patience and the willingness to engage, could have done much to deflate the speculation that Facebook and its big pocketbook were up to no good.

3. **Having a popular service doesn't mean everything you propose will be popular.** Facebook is an extremely popular service among India's already-connected millions. It's used in many countries, including India itself, as an avenue for political speech and action. SaveTheInternet.in was itself widely publicized on Facebook.

4. **Adapt quickly to realities on the ground**. This is something Facebook got right when it changed Internet.org from a curated collection of websites to an open platform, a development that happened quickly. But one of the realities in India to which Facebook

15. Internet.org, "Enhancing Security and Privacy of Free Basics," Sept. 24, 2015. https://info.internet.org/en/blog/2015/09/24/enhancing-security-and-privacy-of-free-basics/

16. Eben Moglen and Mishi Choudhary, "Fictional internet policy is bad for India, good only for Facebook," First Post, Sept. 28, 2015. http://tech.firstpost.com/news-analysis/fictional-internet-policy-is-bad-for-india-good-only-for-facebook-282664.html

17. Tech desk, "TRAI supports Net Neutrality; slams differential pricing: Here's everything you need to know," The Indian Express, Feb. 9, 2016. http://indianexpress.com/article/technology/tech-news-technology/net-neutrality-trai-facebook-free-basics-differential-pricing/

18. Sean McLain, "What Facebook's Mark Zuckerberg Said About India's Ban on Free Basics," The Wall Street Journal, Feb. 9, 2016. http://blogs.wsj.com/indiarealtime/2016/02/09/what-facebooks-mark-zuckerberg-said-about-indias-ban-on-free-basics/

19. Associated Press, "Mark Zuckerberg presses on with global Internet goal," CBS News, Feb. 22, 2016. http://www.cbsnews.com/news/facebook-mark-zuckerberg-presses-on-with-global-internet-goal-free-basics/

20. Mark Zuckerberg, Facebook post, May 10, 2016. https://www.facebook.com/zuck/posts/10102826330667481/

21. Vidhi Choudhary, "Facebook spends around Rs300 crore on Free Basics ad campaign in India," Live Mint, Jan. 9 2016. http://www.livemint.com/Consumer/oMmT-d2g4CkwErMNRoedVMJ/Facebook-spends-around-Rs300-crore-on-Free-Basics-ad-campaig.html

didn't quickly adapt was the need to find common ground with critics, including "extreme" ones. In a December 2015 *Times of India* op-ed – well after Free Basics was relaunched and rebranded as a neutral platform – Zuckerberg felt compelled to characterize the program's critics as purveyors of "fiction" and "false claims."[22] Much that was said about Free Basics had been false, but there's a difference between misunderstandings, even ones that are hard to shake, and deliberate falsehoods. Facebook's willingness to improve the platform in response to criticism should have been the primary message. It was, in fact, the primary message from Indian Minister of Parliament Rajeev Chandrasekhar in a December 2015 op-ed in the *Indian Express*.[23]

5. **Aggressive tactics from a big, well-funded company won't win people over if you're seen as a foreign power**. Unsurprisingly, given the country's history, Indians can be touchy about anything that's perceived as a foreign entity attempting to "colonize" the country's economy. Yes, SaveTheInternet. in enabled users to submit comments directly to TRAI, but the activists looked like a scrappy, inventive opponent when they put their website up. Facebook's response—to broadcast a message urging every Facebook user in India to write to TRAI and urge that Free Basics not be banned—came across as intrusive. "There was tone-deafness in the people who carried out the campaign," the co-founder of a policy think tank told Bhatia. "You know that foreigners talking down to Indians and telling them what is good for them is going to backfire."[24]

6. **Apologize early and often.** When things go wrong and you're misunderstood, always act is if the misunderstanding is your fault. Admit that you are at least partly responsible and resolve publicly to do better. Zuckerberg and Facebook have been appropriately civil in recognizing their setback, as in Zuckerberg's response in which he recommitted the company to promoting internet access in India.[25] But what Indians needed to hear from the company was some recognition that, despite its good motives, Facebook mishandled its public campaign and that the company was grateful for the feedback from its critics.

7. **Admit that your policy goals, however laudable, also serve your business interests.** Facebook is a popular service that likely drives demand for internet adoption in developing countries, but let's not pretend that Facebook Zero (the low-bandwidth version offered by Free Basics) is not also a gateway to a full-featured version of Facebook, where the company makes its money, largely through advertising.

8. **When you lose your public campaign, find ways to re-engage with your former opponents**. In India, Facebook had focused its pro-access efforts on partnerships with mobile providers that mirrored, more or less, its Free Basics program in other countries. Once the TRAI decision was handed down in February 2016 , Free Basics (along with Wikipedia Zero, which didn't manage to dodge the regulatory bullet in India) was left without a way forward in India. Facebook quite rationally hopes the success of Free Basics in other countries, where more than 500 services are available for the platform worldwide,[26] will in the long run persuade the Indian government to modify or remove the ban on Free Basics. But no one expects that to happen anytime soon and there is no clear consensus within India on the path forward. The TRAI has begun a consultation on "free data" that could reopen the door for free information services, but there is no general plan to increase access in India and not enough money in government coffers to provide infrastructure to the Indians who need it most. The absence of a forward-looking comprehensive plan to increase access in India represents an opportunity for Facebook to re-engage as a convener, funding multiple-stakeholder conferences and colloquies in the country aimed at addressing the problem.[27] (Some possible solutions may center on leveraging India's railway network or electric-power lines to deliver internet access without relying on the mobile telephone networks.)

AUSTIN'S RIDESHARING SETBACK

Reviewing Facebook's India setback illustrates the many ways in which the company, known for its policy agility in other contexts, offers a negative example of how not to manage cross-cultural public-policy campaigns.

Even as Facebook's Free Basics initiative was running aground in India, two very different technology-centered companies were headed for regulatory trouble in Austin,

22. Mark Zuckerberg, "Free Basics protects net neutrality," Times of India, Dec. 28, 2016. http://blogs.timesofindia.indiatimes.com/toi-edit-page/free-basics-protects-net-neutrality/

23. Rajeev Chandrashekhar, "Facebook's Free Basics closer to net neutrality: Rajeev Chandrashekhar," The Indian Express, Dec. 25, 2015. http://indianexpress.com/article/technology/tech-news-technology/facebooks-changes-seem-to-align-it-closer-to-net-neutrality-rajeev-chandrasekhar-after-meeting-zuckerberg/

24. Bhatia, 2016.

25. Mark Zuckerberg, Facebook post, Feb. 8, 2016. https://www.facebook.com/zuck/posts/10102641883915251

26. Internet.org, "Introducing New Tools for Free Basics Developers," April 12, 2016. https://info.internet.org/en/blog/2016/04/12/introducing-new-tools-for-free-basics-developers/

27. Mike Godwin and Sharada Srinivasan, "Charting a path forward for internet access in India," R Street Institute, March 2016. http://www.rstreet.org/wp-content/uploads/2016/03/RSTREETSHORT20.pdf

Texas. Uber and Lyft – the popular ridesharing services known generically as "transportation-network companies" or TNCs – initially had been seen as an unalloyed blessing in Austin. The city is a booming state capital with a major research university, an economically powerful technology sector and a historically important music and arts scene that gave rise to the annual South by Southwest music, film and technology festival, also known as SXSW.

After a drunken driver collided with nearly two dozen festival attendees at SXSW in 2014,[28] the city's policymakers and a number of its concerned citizens sought to address Austin's DUI problem. Austin is the nation's top city for bars, with its downtown 78701 ZIP code having the most bars per-capita, at one for every 67 people.[29] The city's mass-transit options have not been up to the task of dealing with the growing nightlife scene. Its fleet of taxicabs hasn't helped, as they are artificially limited to just 900 taxis, thanks to an arrangement between the taxi services and the city.

An obvious way to address Austin's DUI problem was to step up enforcement measures. The Austin Police Department took steps to do just that, including spot sobriety checks. But the March 2014 event at SXSW actually stemmed from such a check. The driver set out to evade the checkpoint and the subsequent police chase concluded in the collision with festival-goers.

A number of Austinites, including the new volunteer advocacy organization ATX Safer Streets, argued that citizens under the influence of alcohol needed expanded alternatives to get home.[30] The new group's agenda looked to address the problem on several levels, including expanded bus and train service, more taxis, more overnight parking downtown and legalization of ridesharing services like Uber and Lyft. ATX Safer Streets campaigned successfully for much of its agenda, with the ridesharing initiative implemented through an "interim" city ordinance in October 2014.[31]

Though generally regarded as a success, the legalization of ridesharing services also drew opposition from the incumbent taxicab industry. The Taxicab, Limousine and Paratransit Association (TLPA) – a national trade association that has actively fought TNC legalization across the country – operates an ongoing web-based public campaign to collect horror stories and complaints about TNC drivers.[32] Unsurprisingly, the group doesn't compare per-capita crime statistics for taxi and TNC drivers, but instead aggregates links to stories about accusations, complaints and charges against only the latter. The cumulative effect is to offer the impression that TNCs are fundamentally out-of-control enterprises that pose a unique threat to unwitting riders.

The TLPA's agenda is to increase barriers to entry for would-be TNC drivers, including by insisting on the use of fingerprint-based background checks. Uber and Lyft already perform extensive background checks, some of which go back further in a would-be driver's records than Austin's new regime would, but they do not require fingerprinting. The TLPA argues, without any supporting data, that taxi drivers are inherently safer because, in many cities, taxi drivers have to submit to fingerprinting in order to be licensed. But a 2015 story in *The Atlantic* concluded that the perception that taxis are safer is based solely on the relative newness of TNCs, and not at all on any comparative data:

> In other words, Boston doesn't track assaults by where they happen—in a taxi, in an Uber, or in someone's home—so there's no data to compare reports against Uber drivers versus taxi drivers or limo drivers. That's true in other cities, too. We asked police departments in five cities—Boston, San Francisco, Chicago, New York, and Washington, D.C.—for information about assaults against passengers of taxis or Uber cars. None of them tracked violent crimes at that level. This is meaningful because it underscores how the narrative about ridesharing and public safety is largely anecdotal. It raises another question, too: If Uber is potentially unsafe for passengers, what about taxis?[33]

A November 2015 investigation by the Austin television station KXAN found that "along with the seven ride-share complaints made to police between last April and August, KXAN also found three involving cab drivers."[34] Those numbers might look bad for the TNCs, except that there were at least 10,000 and maybe closer to 20,000 Uber and Lyft drivers in Austin in 2015, compared with just 900 taxi drivers.

Moreover, there's no reason to believe fingerprinting-based background checks are particularly useful or necessary outside a narrow range of occupations. Evidence shows

28. Will Weissert, "South By Southwest goes on after crash kills 2," Associated Press, March 13, 2014. http://www.huffingtonpost.com/huff-wires/20140313/us--south-by-southwest-fatal-crash/

29. Jan Buchholz, "Cheers! Downtown Austin tops nation for most bars per person," Austin Business Journal, March 19, 2015. http://www.bizjournals.com/austin/blog/real-estate/2015/03/cheers-downtown-austin-tops-nation-for-mostbars.html

30. Edgar Barguiarena, "ATX Safer Streets Exclusive Video Interview," The Austinot, May 19, 2014. http://austinot.com/atx-safer-streets-video-interview

31. Chase Hoffberger, "Buy Yourselves a Ride – Legally!," The Austin Chronicle, Oct. 24, 2014. http://www.austinchronicle.com/news/2014-10-24/buy-yourselves-a-ride-legally/

32. Catherine Ho, "Taxi group ups fight against ridesharing," The Washington Post, March 30, 2014. https://www.washingtonpost.com/business/capitalbusiness/taxi-group-ups-fight-against-ridesharing/2014/03/28/c0027b84-b525-11e3-b899-20667de76985_story.html

33. Adrienne LaFrance and Rose Eveleth, "Are Taxis Safer Than Uber?," The Atlantic, March 3, 2015. http://www.theatlantic.com/technology/archive/2015/03/are-taxis-safer-than-uber/386207/

34. Robert Maxwell, "Austin police investigating alleged sex assaults by Uber, Lyft drivers," KXAN, Nov. 13, 2015. http://kxan.com/investigative-story/austin-police-investigating-alleged-sex-assaults-by-uber-lyft-drivers/

the use of fingerprinting and biometric background checks, which have grown rapidly in the years since the Sept. 11 terror attacks, have been applied in ways that affect some minority groups disproportionately. The National Employment Law Center's 2013 study of the Federal Bureau of Investigation's fingerprint database shows it to be unreliable when it comes to recording the final disposition of arrests.[35] Some individuals are arrested and not charged; others are acquitted of crimes; and others have their records expunged, but the FBI may still report that any and all of these individuals have criminal backgrounds, permanently undercutting their employment possibilities.

Uber and Lyft consistently have opposed fingerprinting-based background checks, saying their own use of third-party services that specialize in background checks is faster and better, and that fingerprinting requirements would slow the onboarding of new drivers. They're also aware that fingerprint databases may disproportionately hurt the employment chances of minority drivers.

But despite growing recognition that the FBI database is not designed to be a reliable background-check resource either for private employers or for state and local governments, the TLPA's public-safety drumbeat has continued to increase. In Austin, this was especially the case after it became clear that, during the interim regulation period in which the TNCs could operate legally, there was a roughly 30 percent drop in rides for the city's cab companies.[36] In December 2015, the Austin City Council voted by a strong majority to impose fingerprinting requirements on ridesharing companies, administered in part by the Texas Department of Public Safety and in part by the FBI.

'LEVELING THE PLAYING FIELD'

It became clear to Uber and Lyft in advance of the vote that Austin was likely to take action that would impose new and additional burdens on TNC drivers, some of whom would balk at having to be fingerprinted for a part-time job. The TNCs joined forces with ATX Safer Streets, Austin Music People and other advocacy groups to try to sway the council to vote against the fingerprint requirement or, failing that, to invoke the city's initiative process to put the regulation to a public vote.[37]

Like Facebook in India, Uber and Lyft were confident their good intentions and the goodwill generated by their services would win the day. The coalition Ridesharing Works for Austin formed its own political action committee to promote the petition for a public initiative. At first, it appeared their confidence was justified— the petition drive, which needed only 20,000 signatures to authorize an initiative, obtained more than 60,000.

But the pro-fingerprinting forces crafted a counternarrative – that big, highly capitalized tech companies from California were using their outsized pocketbooks to buy the regulations they wanted. Like the net-neutrality narrative that confronted Facebook in India, this impression was fueled by Austin's own ambivalence about having become a high-tech center, as well as an increasingly important cultural center, over the last three decades. While happy to benefit from the growing number of Fortune 500 companies that have established national or regional headquarters in the city – including Dell, Apple Inc., IBM, Advanced Micro Devices and Whole Foods Market – Austinites have felt the stresses that accompany watching their city quadruple in population. Many long-term residents have grown to resent the skyrocketing housing prices and seemingly perpetual festival crowds.

This ambivalence about the city's growth and change played a role in Austinites' reactions to the Ridesharing Works public campaign. Already suspicious of the coalition's success in getting an initiative on the ballot for May, many citizens felt hammered by the relentless pro-ridesharing efforts. Voters noted the frequency and intrusiveness of political mail, with new flyers seemingly every day. Some Uber and Lyft customers, who liked the ridesharing services well enough to use them, inferred that drivers had effectively been pressed into service as propagandists.[38] Combined with unsolicited texts and yard signs, the campaign came to viewed by some as harassment.

Pro-taxi lobbies characterized the fingerprinting rules, and their opposition to the TNC initiative, as supporting "a level playing field." If Austin's taxi drivers have to be fingerprinted, why should Uber and Lyft drivers escape that burden? Moreover, the taxi companies argued, the sums the TNCs were spending on the initiative were more than it would cost to get all their drivers fingerprinted. That argument misunderstood and misstated the nature of the objection to fingerprinting, but the TNCs failed to spell out the issue – that results from fingerprinting databases may reflect racial discrimination.

Former U.S. Attorney General Eric Holder went on the record in a June 2016 letter to a Chicago alderman that he

35. Madeline Neighly and Maurice Emsellem, "WANTED: Accurate FBI Background Checks for Employment," National Employment Law Center, July 2013. http://www.nelp.org/content/uploads/2015/03/Report-Wanted-Accurate-FBI-Background-Checks-Employment.pdf

36. Michael Theis, "The Uber effect: Austin taxi rides drop dramatically in past year," Austin Business Journal, Jan. 19, 2016. http://www.bizjournals.com/austin/news/2016/01/19/the-uber-effect-austin-taxi-rides-drop.html

37. Austin Music People, "TechNet, ATX Safer Streets and Austin Music People Launch Petition Drive to Keep Ridesharing in Austin," December 2015. http://austinmusicpeople.org/technet-atx-safer-streets-and-austin-music-people-launch-petition-drive-to-keep-ridesharing-in-austin/

38. Chase Hoffberger, "Uber, Lyft Form PAC, Push Petition," The Austin Chronicle, Jan. 1, 2016. http://www.austinchronicle.com/news/2016-01-01/uber-lyft-form-pac-push-petition/

opposed using the FBI database for fingerprint-based background checks for private employers. Holder has returned to Covington & Burling, a high-powered law firm that includes Uber among his clients, but his status as the nation's former chief law-enforcement official lends his criticisms some credibility:

> Requiring fingerprint-based background checks for non-law enforcement purposes can have a discriminatory impact on communities of color. With nearly 50 percent of African-American men and 44 percent of Latino men arrested by age 23 nationwide, the practice of denying work based on law enforcement records with incomplete and inaccurate information disproportionately disadvantages people who have been arrested. The impact becomes even more acute when looking at communities such as Chicago, where 80 percent of working age African-American men have criminal records and nearly half of young black men are unemployed.[39]

Of course, one way to "level the playing field" would be to eliminate fingerprinting requirements, as well as other outdated regulations, for taxi drivers as well. An op-ed writer raised that issue directly with TLPA spokesman Dave Sutton back in 2014:

> What both the taxi companies and Uber should realize is that changing outdated rules would be the best answer for the companies and for consumers. But when I suggested as much to Sutton, he balked. Why not lower the regulatory burden so it is cheaper and more efficient, so everyone can compete fairly? 'That's not something that we've spoken to," he replied.'[40]

This amounts to an admission that the incumbents want the heightened requirements more than they want "a level playing field." But as was the case with Facebook's Free Basics in India, whoever can most quickly and effectively brand their side as promoting "a level playing field" tends to win the debate.

OVERSELLING THE PROPOSITION

Around the time of the initiative, Austin voters appeared uninterested in the policy questions surrounding fingerprinting. For the city's traditionally progressive political culture, the ridesharing companies' insistence on looser rules came off suspiciously like "carpet bagging," much as Face-

book's Free Basics program was interpreted as "colonialism" by India's network-neutrality activists. The perception for many in Austin, just as it had been for many in India, was that such a large effort to try to convince voters that it was a good idea must signal that it's actually a bad idea.

It did not help the TNCs that the initiative language — drafted in closed session by council members who opted not to use the clearer ballot language suggested by the city's lawyers — was so confusing and longwinded that it had to be explained and summarized. While the pro-ridesharing coalition had won when it came to getting the initiative on the ballot, Austin's relatively underdeveloped initiative process enabled the city council to muddle the issue. A court effort to compel a change in ballot language was defeated shortly before the vote.

Worse still was the ease with which the TNCs' advertising campaign was characterized as misleading and perhaps even deliberately dishonest. The TNCs framed the consequences of losing the initiative as an obligation to depart the city — a result no one, not even the city council, actually wanted to happen. Opponents stressed that the fingerprinting requirement would be phased in over the course of a year.[41] That response was technically true, but neglected the fact that, as of the May 7 vote, both Uber and Lyft technically would be noncompliant with the regulation, which required 25 percent of their respective workforces to have been fingerprinted by May 1. Mayor Steve Adler and others hinted there would be opportunities to negotiate a compromise if the TNCs lost, but under the circumstances, no lawyer could have advised the existing TNCs that it would be safe to stay on.

Nevertheless, after the TNCs' proposed Proposition 1 was voted down, the sense in the city was mostly jubilation, to judge from local news coverage and social media. Only several days later, when it became clear that Uber and Lyft were serious about departing, did a few Austinites begin to have an inkling that perhaps the outcome, which left citizens who were too elderly or disabled to drive without the convenience and flexibility they had grown to depend on, was something less than ideal.

EIGHT LESSONS REVISITED

Comparing the TNCs' loss in Austin to Facebook's loss in India, it's striking that the two sequences of events played out over roughly the same time period—2014 through early 2016. Also notable is that the same lessons that emerged from Facebook's experience with Free Basics in India appear relevant to the TNCs.

39. Eric Holder, "Letter to Alderman Anthony Beale," Covington & Burling LLP, June 2, 2016. https://suntimesmedia.files.wordpress.com/2016/06/letter-to-alderman-beale-june-2-2016.pdf

40. Abby W. Schachter, "The deceptive 'Who's driving you?' campaign against Uber, Sidecar & Lyft," Trib Live, Nov. 1, 2014. http://triblive.com/opinion/featuredcommentary/7047381-74/uber-companies-drivers

41. Mark Wiggins, "TRUTH TEST: Austin Prop. 1 ads misdirecting," KVUE, April 29, 2016. http://www.kvue.com/news/local/truth-test-austin-prop-1-ads-misdirecting/160451010

1. **Listen, and show that you're listening.** The TNCs were confident they were right on the issues in Austin. They blasted out their message and proceeded with their public campaign without awareness of what Austinites believe makes them different from other cities. In a public campaign that, according to some reports, spent more than $8 million, what the TNCs mainly demonstrated was tone-deafness. Had the campaign spent one-tenth its budget and focused instead on town-hall meetings and "free media" — subjecting itself to unlimited public and media cross-examination—it would have demonstrated to Austin that it cared more about understanding and serving the city than about overwhelming it.

2. **When you spend big to oppose a government action, your advertising campaign may become a central part of the story.** By the end of the TNCs' public campaign backing Proposition 1, opponents were talking almost entirely about the money the TNCs had spent and hardly at all about the substantive policy issues.

3. **Having a popular service doesn't mean everything you propose will be popular.** A high percentage of Austinites, even the ones who voted against Proposition 1, would like the two leading ridesharing companies to return, but only if they talk a little more softly and carry a smaller stick.

4. **Adapt quickly to the realities on the ground.** A more nimble campaign in Austin would have adjusted to the changing narrative, as the opposition found its talking points. It could have focused, for example, on particular well-known Austinites for whom the TNCs' services had been life-changing. It could have channeled the voices of the NAACP and Austin's Urban League, who could have explained straightforwardly the racial impact of an emphasis on FBI fingerprint records.

5. **Aggressive tactics from a big, well-funded company won't win people over if you're seen as a foreign power.** Having superior economic resources often can leave one labeled a "bully," a word that was thrown around a lot in both India and Austin. Don't seem like colonizers and don't echo "colonial" attitudes. Austin is proud of its independent character and particularly proud of the things that make it different from other cities. The TNCs would have done better to make particular well-known Austinites – or even newcomer advocates like those who built ATX Safer Streets – the public face of their campaign. The message cannot always be that you're willing to take your service and leave; sometimes you have to show your investment in staying.

6. **Apologize early and often.** Always act as if a misunderstanding is your own fault. Admit that you are at least partly responsible and resolve publicly to do better. There's plenty for which the TNCs could have apologized, including printing too many flyers in recycling-sensitive Austin.

7. **Admit that your policy goals, however laudable, also serve your business interests.** Instead of saying that mandatory fingerprinting slows the process of onboarding new drivers, what if the TNCs had said outright that part of their business model includes having a more diverse, more gender-balanced workforce of drivers? That might have put the TLPA in the position of having to explain the composition of their own workforce.

8. **When you lose your public campaign, find ways to re-engage with your former opponents**. Admittedly, it's unlikely the TLPA is going to be open to real dialogue with the TNCs anytime soon, in Austin or anywhere else. But the TNCs' real "opponents" in Austin were Austinites themselves, who remain nervous about their city's rapid growth and cultural shifts. The Austin City Council was overly responsive to entrenched incumbent taxicab companies, but Austinites in general are well-aware that the taxi services weren't serving the community well before the TNCs got there. Uber and Lyft may have left, but they've left the door open for a possible return. To get through that door, and to help the city arrive at regulations that make it easier for people to use and work for TNCs and not harder, the companies need to invest in active public dialogue. That means more town halls, more press conferences and so on. Public policy is hard work, and it can be harder and quirkier in Austin than in many other cities. But it's worth the investment.

CONCLUSION

Obviously there are risks in trying to make too much of similarities between political entities that, in many large respects, are not alike at all. One is a nation of more than 1.3 billion people, with huge inequality and access problems, and the other is an idiosyncratic American city for which both of those problems are far less acute. Moreover, as I acknowledge at the outset, Facebook (and Free Basics) is more of a "second wave" company, while Uber and Lyft are more clearly "third wave" companies.

But what these two cases have in common is that, as is always true in democracies, it's easy for public-policy campaigns to go wrong – by being arrogant, by lacking empathy, by being overconfident, by assuming the facts speak for themselves, and by not listening enough. All of these problems are cor-

rectable and one of the chief virtues of democracies is the ability of all stakeholders to learn from their mistakes. Facebook clearly learned from its regulatory loss in India; the change in the tone of its messaging after that loss demonstrates those lessons.

Uber and Lyft still have the opportunity to re-engage with Austin, if they choose. More likely, however, the pro-ride-sharing forces will yield to the understandable temptation to escalate the policy fight to the state Legislature, which also happens to be located in Austin, where many legislators already are contemplating what action to take regarding the TNCs in the legislative session that begins in January 2017. (Keep in mind that the legislators used Austin's ride-sharing services too.)

The TNCs shouldn't wait for the Texas Legislature to hand down a pre-emptive law that, while perhaps rationalizing Austin's current TNC regulation, would cause Austinites to bristle, even as some also sigh with relief. Democratic policy-making always works best when the stakeholders proactively re-engage at every level. This path would be the best choice for Facebook in India and for the TNCs in Austin.

Ultimately, all tech companies will have to become better, defter, more nuanced, more engaged and more willing to listen to criticism as the "internet of everything" becomes more pervasive and integral to the human experience. This will mean learning how to engage positively and successfully in the public-policy process. There will be skepticism about whether it does any good to commit resources toward those goals, but Steve Case answers that question in a bluntly realistic way:

> It doesn't matter whether you think that's a good thing or a bad thing. It is not going to change. There are battles over unnecessary regulations—and there should be—but [for third wave companies], the changes sought, even when meaningful, are always going to be marginal in comparison to the size of the regulatory regime.[42]

In other words, the "internet of everything" will require thinking about how to persuade governments — and the people they govern — to craft workable, functional, humane regulatory frameworks. That will mean avoiding the kinds of policy-process mistakes into which Facebook and the TNCs, working on opposite sides of the world and with the best of intentions, both managed to fall.

ABOUT THE AUTHOR

Mike Godwin is a senior fellow and former director of innovation policy for the R Street Institute, focused on the areas of patent and copyright reform, surveillance reform, technology policy, freedom of expression and global internet policy.

Mike has a deep background and knowledge of technology policy and intellectual property, having worked on these issues for the past 25 years. Before joining the R Street Institute in 2015, he served as a senior policy adviser at Internews, advising the organization's public-policy partners in developing and transitional democracies, as part of the Global Internet Policy Project.

Before his return to Washington, he served as general counsel for the California-based Wikimedia Foundation, which operates Wikipedia and other collaborative projects. At the foundation, he created and directed anti-censorship, privacy, trademark and copyright strategies and policies including Wikimedia's responses to the SOPA and PIPA initiatives.

Godwin received his undergraduate and law degrees at the University of Texas at Austin where, while a law student, he served as a reporter and later editor-in-chief of The Daily Texan. Upon graduation, Godwin began his legal career as the first staff counsel for the Electronic Frontier Foundation, which he advised on a range of legal issues centered on freedom of expression and privacy rights during the accelerating growth of internet access in the United States. His continuing career as an Internet-law thought leader has included a policy fellowship at the Center for Democracy and Technology and a research fellowship at Yale Law School.

He has been a contributing editor at Reason magazine since 1994 and is the originator of the widely cited "Godwin's Law of Nazi Analogies," which in 2012 was added to the Oxford English Dictionary.

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42. Case, 2016.