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Chasing the “Bottom Billion”: Tech companies and the selling of global connectivity

Abstract

This paper examines recent efforts by five global technology firms -- Internet.org, SpaceX, OneWeb, O3b, and Google Loon -- to expand internet connectivity primarily to the global south. Eschewing the cable-based infrastructure that provides internet through the global north, these global connectivity efforts utilize new technologies like low orbit satellites that are poised to consolidate control and ownership. We analyse the discourse around these companies' efforts by situating company PR materials and press coverage within the social and policy contexts of global internet provision and the geopolitics of north-south relations. Our findings suggest these companies strategically frame their efforts as humanitarian/development aid, portraying “connectivity” itself as a basic human right at the expense of other internet policy concerns. Moreover, while the technologies and strategies signal a new direction in global technology infrastructure, we find that these companies rely on old narratives and lead efforts that may ultimately replicate longstanding inequalities.

Overview

In 2013, Facebook partnered with six mobile and tech companies to launch Internet.org, an initiative that aims to provide free internet access in developing countries. The initiative -- which Facebook founder Mark Zuckerberg announced with a blog post asking “Is Connectivity a Human Right?” -- is one of several “global connectivity” projects launched in recent years by large tech companies that plan to get the internet to the rest (and majority) of the world's population that is currently not connected.

Despite what its URL would suggest, Facebook's Internet.org is no non-profit venture: it and similar efforts are as profit-driven as these companies' operations in the global north. Yet how they have portrayed their efforts to bring internet to the global south contrasts sharply with how they present their operations in the northern countries where they are based. Google and Facebook, for instance, describe their US and European operations using standard “business” rhetoric, but portray their efforts to secure new customers in the global south through what we call ‘aid language’: language that draws from human rights-based and international development narratives that emphasize global imbalances and position the global south as recipients of the north's largesse and expertise. We argue that these for-profit initiatives occupy a unique space within the constellation of global interventions in internet policy -- one that both bolsters and challenges the aims of internet rights advocates.

These initiatives -- Internet.org, SpaceX, OneWeb, O3b, and Google Loon -- envision diverse technological solutions to global connectivity. Yet whether they employ lower orbit

satellites, weather balloons, or lasers on drones, all of these efforts similarly plan to reach 2/3rds of the world's population utilizing technologies that are dramatically different from the wire-based infrastructure that currently supports internet throughout the global north and much of the rest of the world. In doing so, they invariably pose questions about the future role of local internet service and telecommunications providers, as well as government regulators -- particularly regarding online rights in the global south.

In this paper, we ask, how can we understand the “right” of internet connectivity as envisioned by profit-driven companies based largely out of Silicon Valley, particularly vis-a-vis the more comprehensive agendas for internet rights pursued by organizations within the global humanitarian development milieu? The UN's Internet Governance Forum, for instance, has discussed expanding access as but one of its many aims of the internet. Others include openness, security, diversity, freedom of expression, and the free flow of information -- topics that are not only unaddressed in for-profit initiatives to expand internet access, but that some internet activists have claimed will be adversely impacted by the particular ways these companies seek to expand access (Best, 2014). Facebook's Internet.org, in particular, has already come under intense criticism from activists, civil society, and government officials in India for the strict content controls of its free internet app, which they argue violate the very same net neutrality principles Facebook lobbied to implement in the United States -- effectively creating a new kind of global “digital divide” even while expanding connectivity.¹

By examining the ways that these five companies describe their strategies, and by making sense of their implications within broader social and policy contexts, we argue that: 1) Internet connectivity is pitched as a modern human right that the liberal market can provide. This is presented through “aid language” that emphasizes difference and relies on “othering” billions of people into a monolith characterized by poverty. 2) More comprehensive internet rights aims are reduced to mere connectivity, a catch-all word that both simplifies and obfuscates more substantive issues such as privacy concerns, net neutrality, freedom of expression and telecom regulation. These technology firms focus on the technicalities of internet provision through the use of space and drone technologies, rendering its cost to advantages as an issue of providing a global ‘other’ in need of technological intervention that will somehow resolve a number of development challenges, particularly poverty.

Methods

We analyse the discourse around these efforts at connecting the rest of the world, focusing on the public relations efforts of Facebook, Google, O3B, OneWeb, and SpaceX about their “global connectivity” strategies. Specifically, we gathered all press releases, company publications, publicly available interviews, and advertisements we could find online in which

¹ While Facebook recently responded to activists' concerns (with the “Free Basics” program) its initial criticism highlights the contentious area of regulation, infrastructure, and the importance of messaging and narrative for transnational business strategies.

each of the companies describes their strategies, from their initial public announcements through September, 2015. We also gathered articles on these initiatives published by popular technology websites and magazines such as TechCrunch, Wired, and the MIT Tech review.

By discourse, we mean “particular ways of talking, writing and thinking that can be organized into identifiable patterns of usage across time and space.” (Stevenson, 2003, p156) Textual analysis allows us to analyze the different ways of speaking (or framing even) and perceive which ones are more prevalent (Stevenson, 2003). However, alone, it is limited in conveying the effects of a text or how it is received (Fairclough, 2003; Stevenson, 2003). Thus, the context within which these companies’ PR strategies resonate, i.e. the social and policy contexts of global internet and the geopolitics of north-south relations, are particularly important. Discourse represents not only the present, but also imaginaries of the future, which, as Fairclough argues, “may be operationalized as actual (networks of) practices” (Fairclough, 2012, p459).

Analyzing the discourse around global connectivity, then, provides insight into the structures of power, policy implications, and possibilities for users that emerge from how large, influential technology firms describe their activities. Asking how tech companies in the global north sell their efforts to bring connectivity to the global south is an important starting point that directs us towards business strategies, goals, and possible futures at the policy level all the way to the lived realities of many whose voices may not be heard as decisions are made about communicative aspects of their lives.

Preliminary Findings

Our preliminary data analysis showed a number related themes that these companies’ PR efforts share. First, all five companies emphasize what we call “global unity” through the repeated use of second person plural and visual representations of a connected planet earth. OneWeb, for instance, uses the tagline: “We all need access.” An Internet.org video, meanwhile, features an aerial view of a drone flying above the planet while a narrator says, “This is about us. All of us. Right now a couple billion of us have access to the internet, and amazing things have come from it.”

Secondly, connectivity is presented as a universal right or basic human need. Facebook, for instance, claims that “Connectivity is a human right,” while OneWeb argues that “we” all need access “because the most important elements in our lives depend on communication.” Notably, by framing connectivity itself as a basic right or need, this strategy shifts the focal point of internet rights away from users’ online experiences -- such as free expression -- toward simple access, akin to the provision of basic resources like sanitation or clean water.

Third, connectivity in the global south is presented as a tool for humanitarianism, disaster response, and poverty reduction. Project Loon describes their balloon project as helping to “bring people back online after disasters.” OneWeb lists as a main goal “Relief: In emergency, disaster or humanitarian crisis the ability to communicate saves lives.” O3b claims their technology is

“transforming lives” of people living in the Amazon. In media interviews of senior management for these projects, poverty alleviation repeatedly came up as an impetus for the project. Richard Branson, a key investor in OneWeb, for instance, explicitly draws on the trope of poverty in Africa:

I think it could dramatically close the wealth gap. If you're out in the rural part of Africa and you have a mobile phone or the internet, with the internet you can educate your children. With the mobile phone you you can start a business. And you then become on a much more level playing field as someone else who has a mobile phone or internet access or wifi access. And that's the important breakthrough. And without a massive array of satellites like this, there'd be no chance. So hopefully it will make a difference. (CNN, 2015).

Within Branson's quote is another key aspect of all of the narratives around the various project: unabashed technological determinism. By providing internet access, these companies promise to erase or reduce all manner of global inequalities and injustices.

Discussion: New Technicalities, Old Narratives

These tech companies' global connectivity efforts signal an important shift in the technological infrastructure underlying global internet provision, while also pointing to changes in global digital policy. The last two decades saw deep investments in terrestrial internet infrastructure, largely the laying of fiber optic cables to boost internet speeds and submarine cables to connect continents and countries. While satellites have long been used to provide connectivity, until now, they have been placed in geosynchronous orbit (GEO) -- about 22,000 miles above the earth's surface -- which gives a wide area of coverage but high latency (or slow rates of packet delivery)(Calandrelli, 2015). The companies we examine all have plans to locate their satellites or balloons (in Google's case) in either lower or medium earth orbit (LEO or MEO respectively) which reduces latency but covers a much smaller area than GEO satellites.

This is a new direction for technical infrastructure, albeit an expensive one. Launching hundreds of satellites into orbit will cost billions of dollars, and, unlike laying fiber cables, this new global infrastructure needs to be completely finished before it can have the kind of reach these companies are hoping for, making it a higher stakes (and perhaps more costly) investment than land-based infrastructure. Nevertheless, for these tech companies, the challenges posed by raising billions in capital for satellites would appear to be less than those posed by obstacles such as working with numerous foreign governments and multiple stakeholders, acquiring rights to the land required to lay cables, and the localization of their operations to diverse regulatory and social contexts. The financial costs and ownership of the technical knowledge to execute this new infrastructure is currently limited to a small group of people and companies, and instead of the current system of multiple stakeholders determining where and who has access, space infrastructure will be in the hands of a select few individuals and corporations.

To sell this idea of using new technologies for connectivity to the global public and to investors, however, these companies have made critical choices on how to describe the market in ways that rely on old narratives and tropes characterizing global north-south relations. Specifically, our analysis suggests that they employ what we call “aid language” -- similar to what Chirumamilla and Pal term a “developmental optic” (2013) -- to appeal to humanitarian logics, rather than financial- or profit-oriented ones. We argue that by framing their business practices as aid, these companies skirt criticisms such as monopolistic business practices, lack of local ownership, and lack of guarantees of user-focused internet rights aims. Connectivity is framed as a charity provided by the technologically-advanced global north to alleviate poverty for vast numbers of technologically backwards others living in the global south.

The majority of these global connectivity initiatives are in their infancies, so their impact is difficult to gauge: SpaceX is still testing launching rockets into space and acquiring the several billion dollars they estimate will be required to create their network of satellites, Google Loon recently made an agreement with Sri Lanka to provide balloon-based internet throughout the country, and Facebook’s Internet.org has released its app in a handful of countries. However, our analysis of the discourse of global connectivity allows us to explore how these initiatives might shape the online experiences of the majority of the world’s population in the coming years. As it stands, these new global connectivity efforts seem poised to replicate longstanding global inequalities.

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