Big Data for Climate Action or Climate Action for Big Data?

Abstract
In recent years, private companies have increasingly shared their data to track and analyze social and environmental problems. Under the banners of "data for good," "data for development," and "data philanthropy," a wide array of IT companies have started to partner with NGOs, development agencies, and inter-governmental organizations to leverage the power of big data for the public good. Inspired by the principles of shared value and philanthrocapitalism, companies are joining the "data for good" movement, aligning their business models to the achievement of the SDGs, as they view social problems as business opportunities. While these initiatives have raised questions regarding data privacy, and the future of CSR and philanthropy, there is very little critical examination of how the use of big data technologies to address social and environmental problems represent a *new* way of conceiving what is made to count as a problem. This paper offers a unique glimpse into why and how the promotion of big data for sustainable development and environmental action has evolved, and how "climate action" is presented to multiple audiences as a solvable information problem. We analyze fifteen interviews with experts on the use of big data for good working at intergovernmental organizations, nonprofits, tech companies, consulting firms, and research universities. We argue that the private sector's liberal framing of the climate crisis as a data problem confines climate action to the private realm while aiming to protect the current economic order that deepens the climate crisis.

Introduction

"If you can't measure it, you can't manage it." That is how Michael Bloomberg announced via Twitter the 5th edition of Bloomberg's Data for Good Exchange (#D4GX); an annual event that brings together corporations, policymakers, nonprofits, charitable foundations, and researchers to discuss how big data can solve the most pressing social problems of our time. The 2018 conference theme was "*Our* Data for Good?" (emphasis in original), reflecting on how the private sector can deploy its data assets to develop data science projects for the public good that focus "on everyone having a stake, making it solid, fair, and equitable" (Bloomberg Finance LP 2018).

The conference presenters spoke of the power of big data to tackle a wide array of social issues, from gender equity to climate resilience. Disaster recovery specialists discussed how mobile finance and credit-card transaction data could help city leaders prevent price gouging after being affected by hurricanes and other extreme weather events. They spoke of how mobile data could help hurricane victims find gas and groceries or assess who is creditworthy in a post-disaster setting. A data scientist excitedly described how bringing city governments and corporations together to use "real-time data" could help identify intervention points and improve social outcomes for young people of color. Catchphrases such as "When you have data informs,

then you have data that transforms" or "The power of data is to drive good decisions based on fact and not politics" were frequently used to emphasize how the use of private big data can catalyze social change.

While the initiatives presented at #D4GX were dependent on different kinds of data sharing partnerships, many of them engaged with what is now known as "data philanthropy," an emerging philanthropic practice where corporations donate data or insights generated from its data with the public or a public-serving analyst (such as nonprofit institution) to yield new insights that could improve public policies, social programs, and services (Urban Institute 2018). Data philanthropy, however, does not only aims to provide "evidence-based, data-driven insights" that could drive decision making for the public good. Influenced by the principles of "shared value" (Porter and Kramer 2011), data philanthropy intends to align business and philanthropic activities. It advocates for data sharing as a way to mitigate potential business risks by contributing to the social good; it sees social problems as business problems.

Although business journals and technologies magazines are beginning to report on the business and ethical risks of corporate data philanthropy, there is very little critical examination of the social implications of these initiatives. In particular, there has been a dearth of attention given to how the promotion of data philanthropy or "data for good" initiatives to address social problems can affect not only how we measure those problems, but how we perceive them and define them. The framing of social problems or sustainable development issues as "data problems" is not a recent phenomena. Data serves as a way of materializing events. It defines issues as matter of calculation (Aronncyzk 2017), "turns sense experience into data" (Busch), "forms evidence" (Gabrys 2016a) and informs decision making. Past sociological research has reported on the construction of environmental problems as "lack of data" problems (Aroncyzk 2017, Gabrys et al. 2016), and on the private sector's attempts to presents social and humanitarian problems as "business problems" that only require the profit-making tools of corporations to achieve greater social impact (McGoey 2012). So what does data philanthropy mean for corporate citizenship and the presentation of social problems in public arenas? What is new about the nature of data philanthropy? How does it differ from earlier approaches?

We argue that while data philanthropy's main features (e.g., the construction of social problems as a lack of data/evidence problem, the idea of governing by numbers, the presentation of the most pressing problems of our time as problems that the private sector knows best how to solve, and the conflation of profit-making and charitable giving) are hardly new, it offers a unique and powerful avenue for corporations to restore the public's trust in regards to data security and privacy issues, and to regain social license in a time where "every company is a data company" (Bean 2018). It also provides an opportunity to reshape capitalism relationship to society by redefining social problems as business problems (e.g., not just as traditional

philanthropy or CSR but as matter of risk mitigation and supply chain management). Data philanthropy serves as a promotional technique that legitimizes businesses' data extraction practices and protects the current economic order.

In this article, we focus on the promotion of data philanthropy to fight climate change. "Big data for climate action" has increasingly received attention from the private and public sector. The topic has been discussed in "data for good" events (e.g., Bloomberg's #D4GX) as well as it has been the central theme of other data philanthropy challenges, such as the UN Global Pulse's 2017 and 2014 'Data for Climate Action' ('D4CA). These challenges aimed to leverage private big data —such as mobile data or bank card transactions— to provide valuable insights into human behavior patterns and climate risk relevant to the 2030 Sustainable Development Goals. The case of "big data for climate action" can give us insights into the emergence of data philanthropy and can help us understand how its participation in promoting big data practices for environmental data affects the communication of climate action as it defines and refines its objects of study (Aronczyk 2017, Gabrys 2016b). It can illuminate how "climate action" is presented to the public as a solvable information problem.

The remainder of this article addresses these issues, drawing upon corporate philanthropy (McGoey 2015) studies and a small but growing literature on environmental sociology and media studies (e.g. Gabrys 2016a, 2016b, Parks 2013, Russell 2013) that aims to account for the "informating" of environmentalism (Fortun 2004) —the adoption of information technologies to reckon with environmental problems. We analyze fifteen interviews with experts on "big data for good" working at intergovernmental organizations, nonprofits, tech companies, consulting firms, and research universities, as well as participant observation data collected at conferences (e.g. Bloomberg's Data for Good Exchange and WEF's teleconference on big data for health).