























data are not representative of the population at large.<sup>49</sup> Nevertheless these organizations consider data to be representative of the population that produces it. This view contrasts with recent scholarship showing the *performative* nature of knowledge produced through social media; much recent work has argued that social media data are produced as a way of presenting a desirable image of oneself.<sup>50</sup> Big data within digital humanitarianism could thus be seen not as an objective and situated recording of a reality but rather as a mediated presentation of the image one wants others to have of them. The difference here is between seeing big data as both a source of information to guide the dispersal of resources on the one hand and as a murky lens through which to view a limited number of perspectives of a crisis.

Research into the knowledge politics of the geoweb has shown this to be a fruitful area. While such research has shed light on the uneven representation and contribution of knowledges encoded by data, less is known about the particular ways this has factored into knowledge of the world. Current geoweb research is addressing this question, and digital humanitarianism is an imperative case to consider, as it mobilizes relations that rely explicitly on knowledge of other places. In humanitarian contexts it may be empowering and may assist in recovery and future mitigation efforts for representational technologies to incorporate local knowledges and ways of knowing, rather than to have a structure of knowledge (e.g., prefabricated databases, Cartesian representations) foisted upon local communities. Big data in the form of social media may contribute to this goal, insofar as it allows a degree of flexibility of expression not seen in previous data forms. In this way digital humanitarianism presents unique challenges and ethical questions to knowledge politics in geoweb research. Specific questions remain. Who can—and who *does*—represent places in digital humanitarian contexts? What kinds of marginalizations arise because of these asymmetries? How is knowledge about individual crises, as well as crisis writ large, shaped by digital humanitarian technologies? What kinds of struggles are undertaken by “victims” of humanitarian crises in order to make their knowledges visible—or in some cases to keep their knowledges *invisible*?<sup>51</sup>

## Conclusion

In this chapter I have argued that geographers studying the geoweb have not sufficiently considered the case of digital humanitarianism and that doing so would lend unique and productive insights. I have reflected on potential contributions, focusing on the social and political implications of digital humanitarianism. I looked specifically at current theorizations of the geoweb's spatialities, political economy, and knowledge politics, drawing lines of productive resonance with digital humanitarianism.

Further research is needed at the juncture of the geoweb and digital humanitarianism to expand geographers' understanding of the shifting socio-technical practices observed in the world today. Such research would contribute deeper understanding of digital humanitarianism but would also nuance current conceptualizations of the geoweb. As an umbrella term for shifting data and socio-technical phenomena, the "geoweb" currently does not adequately account for the range of contexts in which new data and socio-technical practices occur. Digital humanitarianism enrolls unique institutional, social, and political-economic relations that are distinct from—and therefore stand to refine—what is typically considered the geoweb.

Additionally, greater understanding of digital humanitarianism is imperative due to the significant impact that humanitarianism has on current global social and political relations. The last several decades have witnessed the emergence of a general sense of cosmopolitan responsibility, with appeals to humanitarian and moral sentiments becoming the most likely to generate support for humanitarian intervention.<sup>52</sup> "Humanitarian reason" is thus becoming an increasingly powerful force in the world, and more research is needed to understand the impacts incurred by the incorporation of big data and digital humanitarian technologies.<sup>53</sup> Geoweb scholars are well positioned to address these questions.

## Notes

1. Burns, "Rethinking Big Data"; Crawford and Finn, "Limits of Crisis Data."
2. One documented use of this process is found in Standby Task Force, *Nepal Earthquake 2015*.

3. UN OCHA, *Humanitarianism in the Network Age*; Meier, "What Is Big (Crisis) Data?"; Taylor and Schroeder, "Is Bigger Better?"
4. Scharl and Tochtermann, *Geospatial Web*; Leszczynski and Wilson, "Theorizing the Geoweb"; Howe, "Rise of Crowdsourcing"; Ziemke, "Crisis Mapping"; Mayer-Schönberger and Cukier, *Big Data*; Olafsson, *Humanitarian Response*.
5. Crawford and Finn, "Limits of Crisis Data"; Dalton and Thatcher, "Critical Data Studies"; Sandvik et al., "Humanitarian Technology."
6. Goodchild and Glennon, "Crowdsourcing Geographic Information"; Haworth and Bruce, "Review of Volunteered Geographic Information"; Li and Goodchild, "Role of Social Networks in EM"; Hughes and Palen, "Evolving Role"; Starbird and Palen, "Working and Sustaining"; Al-Akkad and Raffelsberger, "How Do I Get This App?"; Hiltz, Kushma, and Plotnick, "Use of Social Media"; Van Gorp, "Integration of Volunteer and Technical Communities."
7. Burns and Shanley, *Connecting Grassroots to Government*; Hiltz, Kushma, and Plotnick, "Use of Social Media"; Shanley et al., "Tweeting Up a Storm."
8. Meier, "Debating the Value of Tweets"; Meier, "What Was Novel?"
9. Gupta and Kumaraguru, "Credibility Ranking of Tweets"; Vieweg, "Situational Awareness"; Castillo, Mendoza, and Poblete, "Predicting Information Credibility."
10. Cohen, "Sandy Marked Shift."
11. Crowley and Chan, *Disaster Relief 2.0*; Burns, "Rethinking Big Data."
12. Palen, Vieweg, and Anderson, "Supporting 'Everyday Analysts'"; Hughes and Palen, "Evolving Role."
13. F. Harvey, "To Volunteer or to Contribute?"; Schroeder, "Big Data"; Liu et al., "How Disaster Information"; Starbird and Palen, "Working and Sustaining."
14. Acar and Muraki, "Twitter for Crisis Communication"; Verity, *OCHA's Lessons Learned*.
15. Corbett and Keller, "Using Community Information."
16. Bott, Gigler, and Young, *Role of Crowdsourcing*; Stottlemire and Stottlemire, "Crisis Mapping Intelligence."
17. Chamales and Baker, *Securing Crisis Maps*; Chamales, *Towards Trustworthy Social Media*; Goolsby, *On Cybersecurity, Crowdsourcing*; Meier, "Humanitarians in the Sky"; Sandvik and Lohne, "Rise of the Humanitarian Drone"; Burns and Shanley, *Connecting Grassroots to Government*.
18. Capelo, Chang, and Verity, *Guidance for Collaborating*; Waldman, Verity, and Roberts, *Guidance for Collaborating*; Virtual Social Media Working Group and DHS First Responders Group, *Lessons Learned*.
19. Burns, "Rethinking Big Data."

20. Burns and Shanley, *Connecting Grassroots to Government*; Shanley, "Opportunities and Challenges"; Su, Wardell, and Thorkildsen, *Social Media in Emergency Management*; Woodrow Wilson Center, *Legal and Policy Issues*.
21. Robson, *Responding to Liability*; Reidenberg et al., "Privacy and Missing Persons"; Young et al., *Transforming Earthquake Detection*.
22. Goodchild and Glennon, "Crowdsourcing Geographic Information."
23. Elwood and Mitchell, "Another Politics Is Possible"; Kinsley, "Beyond the Screen"; Kinsley, "Matter of 'Virtual' Geographies"; W. Lin, "Situating Performative Neogeography."
24. Bowker, *Memory Practices*; Boyd and Crawford, "Critical Questions for Big Data"; Dalton and Thatcher, "Critical Data Studies."
25. Zook et al., "Volunteered Geographic Information and Crowdsourcing."
26. Roche et al., "GeoWeb and Crisis Management," 17.
27. Liu and Pale, "New Cartographers"; Liu, Fraustino, and Jin, "How Disaster Information"; Meier, *Digital Humanitarians*.
28. Burns, "Rethinking Big Data."
29. Bittner et al., "Tracing Contingencies."
30. Burns, "Moments of Closure."
31. Similar arguments for geography and big data may be found in Farmer and Pozdnoukhov, "Building Streaming GIScience."
32. Fassin, *Humanitarian Reason*.
33. Kitchin and Dodge, *Code/Space*; Kinsley, "Matter of 'Virtual' Geographies."
34. Suggesting that big data digital humanitarianism reflects the unevenness of data production are M. Graham, Hale, and Stephens, *Geographies of World's Knowledge*; and M. Graham et al., "Uneven Geographies."
35. Okolloh, "Ushahidi or 'Testimony.'"
36. Haklay, "Neogeography and Delusion"; M. Graham et al., "Uneven Geographies"; Stephens, "Gender and Geoweb"; Leszczynski and Elwood, "Feminist Geographies"; M. Graham, "Neogeography and Palimpsests"; Thatcher, "Avoiding the Ghetto."
37. Crampton et al., "Beyond the Geotag."
38. Kirkpatrick, "Data Philanthropy"; Letouzé, "Big Data for Development"; Letouzé, "Big Data from Cellphones"; UN OCHA, *Humanitarianism in the Network Age*.
39. Burns and Shanley, *Connecting Grassroots to Government*.
40. Quoted in Woodrow Wilson Center, *Research Challenges*. To be sure, Rasmussen's statement was paraphrasing another person's words, but it was in affirmation of those words.

41. Kirkpatrick, "Data Philanthropy."
42. Decker, "Big Data for Humanitarian Assistance"; Meier, "What Was Novel?"
43. Leszczynski, "Situating the Geoweb."
44. Fuchs and Seignani, "What Is Digital Labour?"
45. Elwood and Mitchell, "Another Politics Is Possible."
46. Burns, "Moments of Closure."
47. Burns, "Rethinking Big Data."
48. Letouzé, "Big Data for Development"; Meier, "What Is Big (Crisis) Data?"; UN OCHA, *Humanitarianism in the Network Age*.
49. Meier, "Debating the Value of Tweets."
50. Kinsley, "Beyond the Screen"; W. Lin, "Situating Performative Neogeography."
51. Burns, "Moments of Closure"; Young and Gilmore, "Subaltern Empowerment."
52. Calhoun, "World of Emergencies"; Roy, *Poverty Capital*; Fassin, *Humanitarian Reason*.
53. Calhoun, "World of Emergencies"; Crawford and Finn, "Limits of Crisis Data."