

Facebook Disaster Maps: Aggregate Insights for Crisis Response & Recovery

Paige Maas
Facebook
Menlo Park, CA, USA
pmaas@fb.com

ABSTRACT

After a natural disaster or other crisis, humanitarian organizations need to know where affected people are located and what resources they need. While this information is difficult to capture quickly through conventional methods, aggregate usage patterns of social media apps like Facebook can help fill these information gaps. This talk will describe the data and methodology that power Facebook Disaster Maps. These maps utilize information about Facebook usage in areas impacted by natural hazards, producing insights into how the population is affected by and responding to the hazard.

In addition to methodology details, including efforts taken to ensure the security and privacy of Facebook users, I'll also discuss how we worked with humanitarian partners to develop the maps, which are actively used in disaster response today. I'll give examples of insights generated from the maps and I'll also discuss some limitations of the current methodologies, challenges, and opportunities for improvement.

CCS CONCEPTS

• Social media • Applied Computing • Model development and analysis • Privacy protections

KEYWORDS

Mapping; Disaster Response

ACM Reference format:

Paige Maas, 2019. Facebook Disaster Maps: Aggregate Insights for Crisis Response & Recovery. In *Proceedings of KDD '19, August 6-8, Anchorage, AK, USA*. ACM, New York, NY, USA, 1 pages. <https://doi.org/10.1145/3292500.3340412>

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author.

KDD '19, August 4–8, 2019, Anchorage, AK, USA.

© 2019 Copyright is held by the owner/author(s).

ACM ISBN 978-1-4503-6201-6/19/08.

DOI: <https://doi.org/10.1145/3292500.3340412>

BIOGRAPHY

Paige Maas is a data scientist on Facebook's Core Data Science team. She analyzes data, fits statistical models, and builds data pipelines to help create Disaster Maps that humanitarians can use to support communities recovering from disaster. Prior to joining Facebook, she earned her Ph.D. in Biostatistics from Johns Hopkins University and completed a post-doc at the National Cancer Institute.

