

FACILITATING FLOOD RESPONSE USING GEOSOCIAL MEDIA

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INTRODUCTION

- The quantity of available Geoinformation from remote sensing, crowdsourced geosocial media (CGSM), and geo-computation techniques has greatly increased during the past two decades.
- There is a need to create a reproducible scientific workflow for processing the CGSM data for different application.
- Determining affected or vulnerable areas of flood from CGSM is a crucial and challenging step in successful disaster response for which geosocial media as of now has still untapped potential.

PROBLEM STATEMENT

- During disaster satellite data cannot be immediately used for mapping flood affected area. Alternately we can use geosocial media data for creation of geospatial footprint of flood affected region.

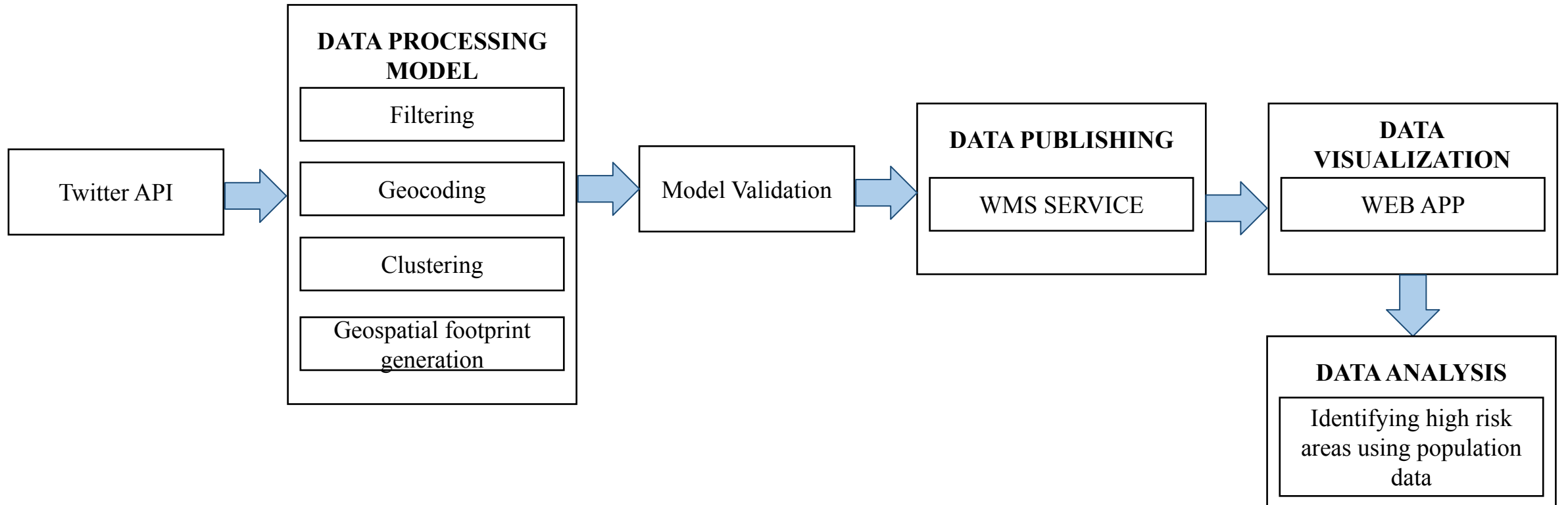
OBJECTIVE

- To create a geospatial footprint of flood affected region using geosocial media (Twitter API)

SUB-OBJECTIVE

- Identification of area affected by the flood.
- Validation of result with existing authoritative datasets.
- Data visualization over the Web.

PROPOSED METHODOLOGY



EXPECTED OUTCOME

- Identification of area affected by the flood.
- Validation of result with existing authoritative datasets.
- Using demographic data delineate high risk and low risk region.

REFERENCE

V. Cerutti, C. Bellman, A. Both, M. Duckham, B. Jenny, R. L. G. Lemmens & F. O. Ostermann (2021) Improving the reproducibility of geospatial scientific workflows: the use of geosocial media in facilitating disaster response, Journal of Spatial Science, 66:3, 383-400, DOI: 10.1080/14498596.2019.1654944