

Copernicus e la gestione intelligente delle aree urbane

18-19 Novembre 2020



POLITECNICO
MILANO 1863



Tecniche per l'estrazione di informazioni dai Social Media in situazioni di emergenza

Barbara Pernici

Dipartimento di Elettronica, Informazione e Bioingegneria
barbara.pernici@polimi.it



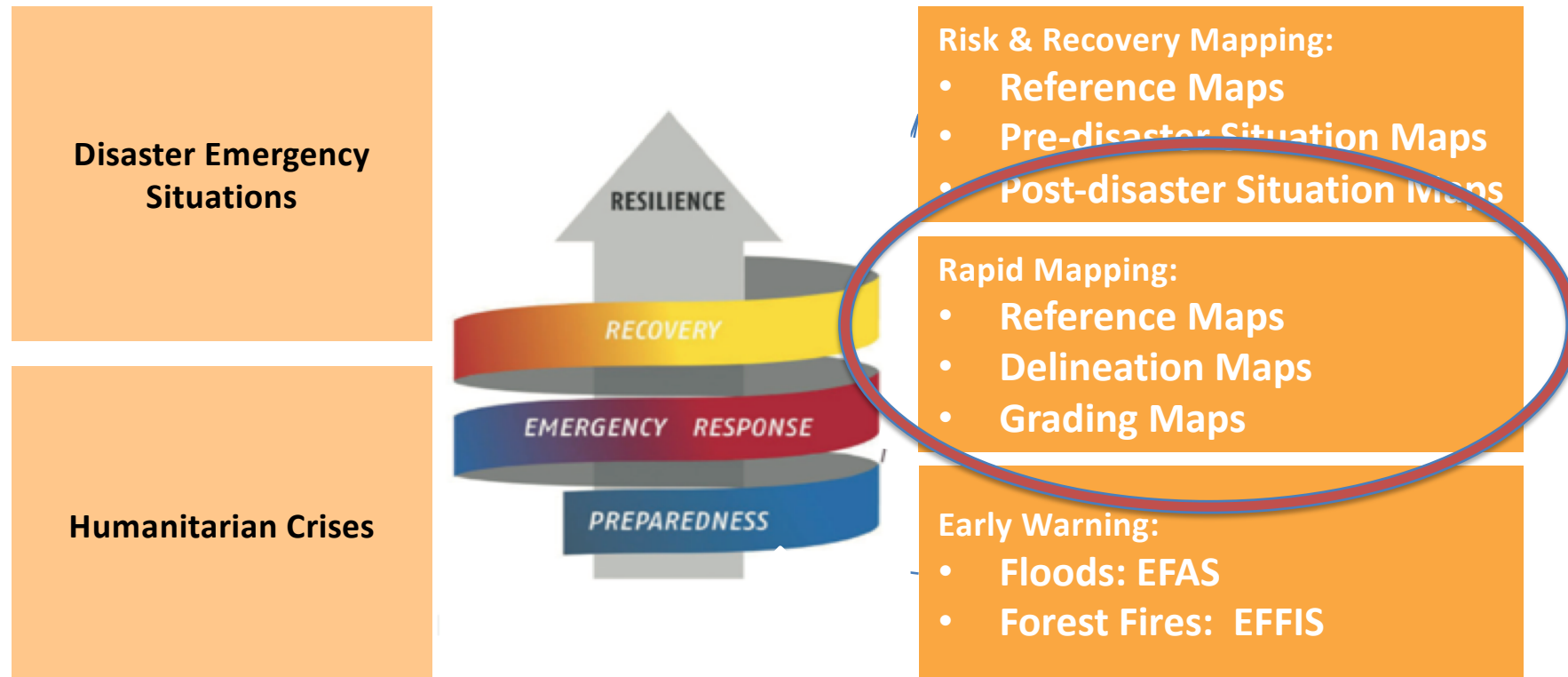


Principali interessi di ricerca: ingegneria dei sistemi informativi, sistemi informativi adattivi consapevoli dei processi, qualità delle informazioni e dei servizi, gestione delle informazioni di emergenza

Progetti EU H2020 in questo ambito:

- E2MC Evolution of Emergency Copernicus services (2016-19) <https://www.e2mc-project.eu/>
- Crowd4SDG Citizen Science for Sustainable development Goals (2020-22) <https://crowd4sdg.eu/>

Copernicus Emergency Managements Services EMS



*EFAS = European Flood Awareness System;
EFFIS=European Forest Fire Information System*



Evolution of Emergency Management Services in Copernicus

<https://www.e2mc-project.eu/>

Short video

<https://www.e2mc-project.eu/new-animated-video-of-e2mc-available>

Call: H2020-EO-2016 (Earth Observation) Horizon 2020

Topic: EO-3-2016 Evolution of Copernicus services

Type of action: RIA (Research and Innovation action)

Proposal ID 730082



Co-funded by the Horizon 2020 programme
of the European Union

Coordinatore del progetto



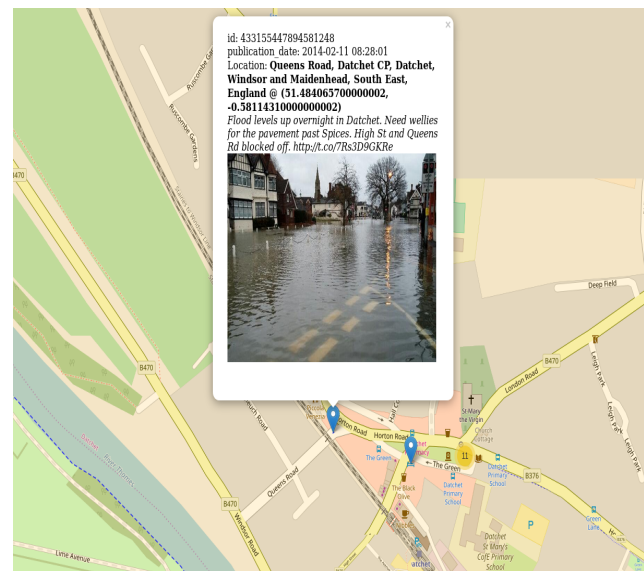
Partner



Dai tweets al rapid mapping nelle emergenze Sumentare le capacità umane



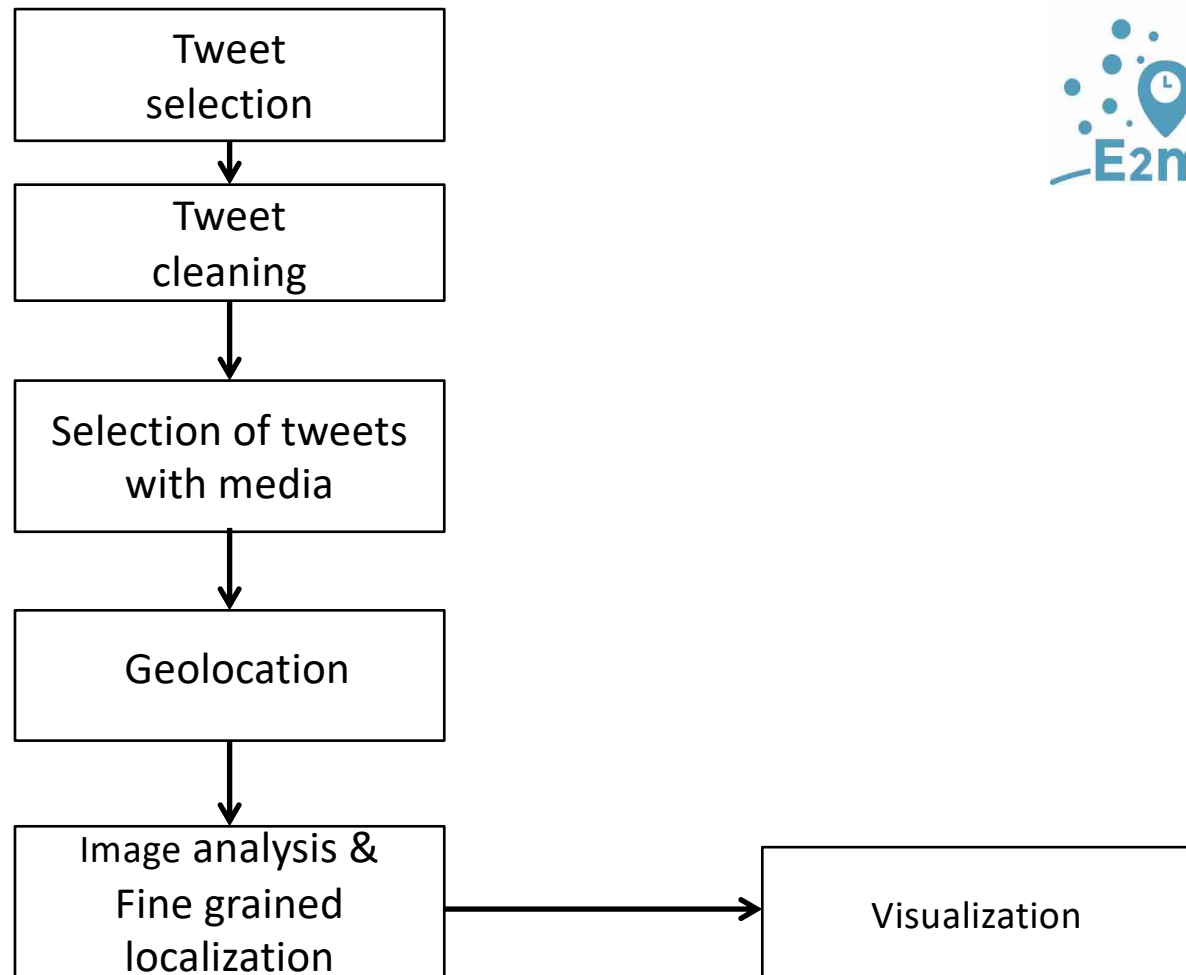
Interazioni sociali, Citizen Science



Geolocated tweet image (CIME local).



Co-funded by the Horizon 2020 programme
of the European Union



Francalanci et al., RCIS 2017

*Selected geo-
localized images
crowd4EMS*

Demo

<https://emergency.copernicus.eu/mapping/list-of-activations-rapid>

<http://witness-dev.egeos-services.it/E2MC/#/>

<https://crowd4ems.org/project/twitter/task/2813>

<https://twitter.com/marnanel/status/433636292245864448>

<https://nominatim.openstreetmap.org/ui/search.html?q=hummer+road%2C+egham>

<https://corenlp.run/>

<https://try.rosette.com/>

<https://nominatim.openstreetmap.org/ui/search.html?q=egham>

http://srv-pernici1.deib.polimi.it:20001/e2mc/CIME/v1.0/tweet/public_post/433636292245864448

<https://lab.citizenscience.ch/en/project/162>

Emergenza COVID

Disaster: pandemic

Progetto Crowd4SDG

Caso di studio sulla distanza sociale e l'uso delle mascherine

Citizen Science for Monitoring Climate Impacts and Achieving Climate Resilience

<https://crowd4sdg.eu/>

Call: H2020-SwafS-2018-2020 (Science with and for Society)

Topic: SwafS-15-2018-2019

Type of action: RIA

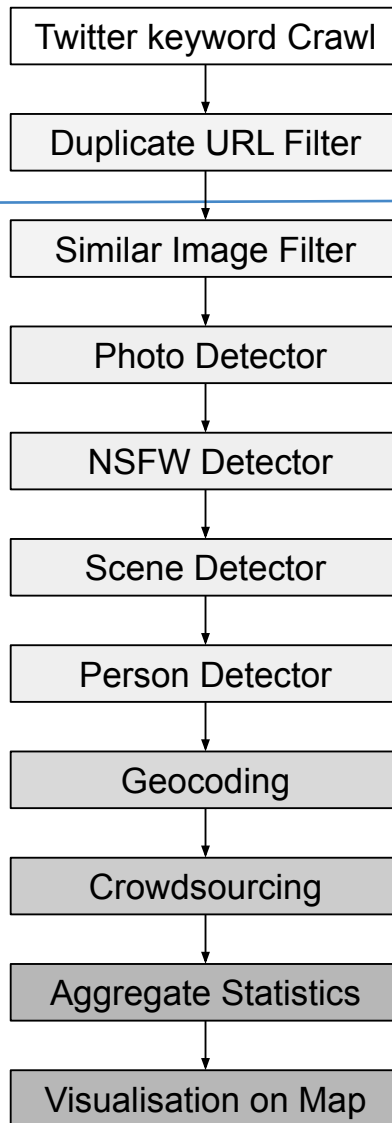
Proposal number: 872944



Co-funded by the Horizon 2020 programme
of the European Union



Crowd4SDG



Co-funded by the Horizon 2020 programme of the European Union

BETA



HOME DISCOVER ABOUT FORUM EN LOGIN

[Go back to the project](#)

Is this a photo (rather than a cartoon, graph, meme, etc.)?

☒ YES ☐ NO ☐ NOT SURE

Does it look like it has been taken recently (in the last three months)?

☒ YES ☐ NO ☐ CANNOT TELL

Are there people in this image?

☒ YES ☐ NO ☐ NOT SURE

Are the people wearing masks?

☒ YES ☐ SOME OF THEM ☐ NO ☐ CANNOT TELL

If so, which type?

Tweet

Coronavirus en Argentina: el Gobierno ampli la definici de caso sospechoso. <https://t.co/0ef8KjyAsH>
<https://t.co/1fqPhEQAqJ>

Country/ Territory: Argentina

<https://t.co/1fqPhEQAqJ>

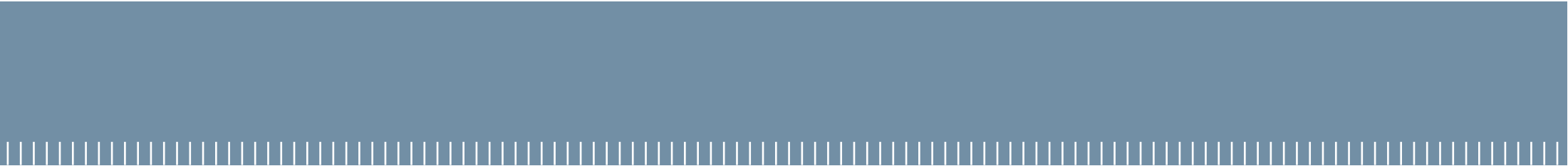


Negri et al., 2020

<https://arxiv.org/abs/2010.03021>

Publications

- Clemens Havas, Bernd Resch, Chiara Francalanci, Barbara Pernici, Gabriele Scalia, Jose Luis Fernandez-Marquez, Tim Van Achte, Gunter Zeug, Rosy Mondardini, Domenico Grandoni, Birgit Kirsch, Milan Kalas, Valerio Lorini, Stefan Rüping, E2mC: Improving Emergency Management Service Practice through Social Media and Crowdsourcing Analysis in Near Real Time, Sensors, Dec. 2017
- Virginia Negri, Dario Scuratti, Stefano Agresti, Donya Rooein, Amudha Ravi Shankar, Jose Luis Fernandez-Marquez, Mark James Carman, Barbara Pernici, Image-based Social Sensing: Combining AI and the Crowd to Mine Policy-Adherence Indicators from Twitter. CoRR abs/2010.03021 (2020)
- Barbara Pernici, Chiara Francalanci, Gabriele Scalia, Exploratory spatio-temporal queries in evolving information, MATES VLDB Workshop, Munich, Sept. 2017, Springer 2018
- D. Grandoni, L. De Vendictis, C. Francalanci, B. Pernici, G. Scalia, J.L. Fernandez, R. Mondardini, “The E2mC Project: An Innovative Approach to Combine Social Media and Crowdsourcing for Rapid Mapping”, “Citizen Science” session, Earth Observation Open Science 2017 Conference, ESRIN, Frascati, 25-28 September 2017



Chiara Francalanci, Paolo Guglielmino, Matteo Montalcini, Gabriele Scalia, Barbara Pernici: IMEXT: A method and system to extract geolocated images from Tweets – Analysis of a case study. RCIS 2017, Brighton, UK, 382-390, IEEE.

Barbara Pernici, Chiara Francalanci, Gabriele Scalia, Marco Corsi, Domenico Grandoni and Mariano A. Biscardi, Geolocating social media posts for emergency mapping, demo paper, The 5th International Workshop on Social Web for Disaster Management (SWDM'18), Los Angeles, Feb. 2018

Chiara Francalanci, Barbara Pernici, Gabriele Scalia, Gunter Zeug, Talking about places: Considering context in geolocation of images extracted from tweets, Short paper, GI-Forum, Salzburg, July 2018

Copernicus e la gestione intelligente delle aree urbane

18-19 Novembre 2020



POLITECNICO
MILANO 1863



Grazie per l'attenzione!

