

Lightening talk: Dashboard to monitor spatial data quality compliance of OpenStreetMap for humanitarian action

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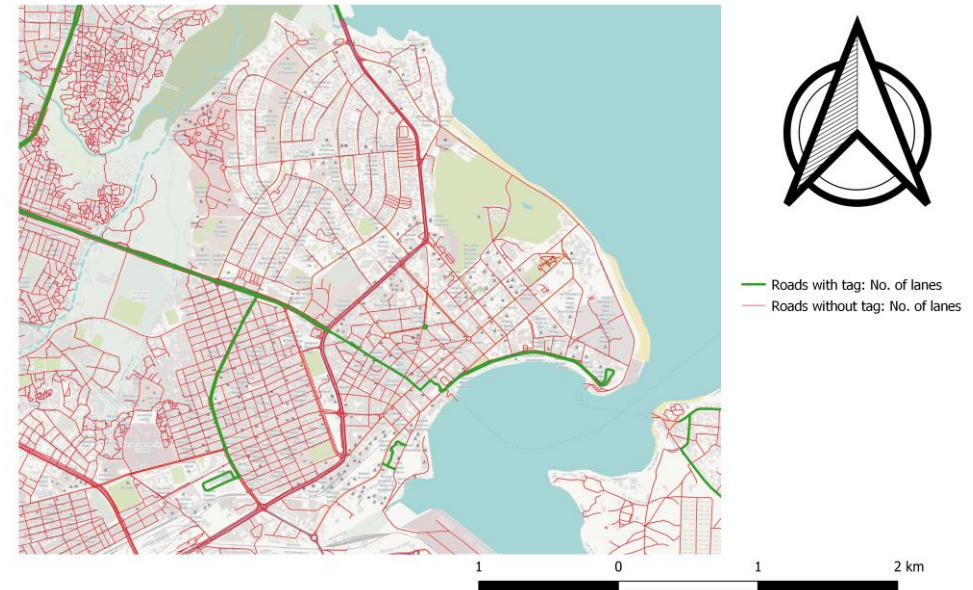


Introduction



- Quality assessment of OpenStreetMap is an endless research
- Extrinsic and intrinsic
- Context & data driven

Quality index for completeness of roads: No. of lanes tag



Still an issue ?

- Standardization of quality of OSM is challenging
- Visualization of quality of OSM is difficult
- Contextualize to disaster response/preparedness.



DASHBOARD

Visualize OSM quality

Monitor OSM quality

Prioritize mapping areas in
OSM



Humanitarian
context



Regional
context



Meta
data



Globally
available
external RS data

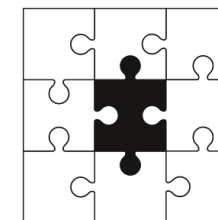


Spatial Dashboard

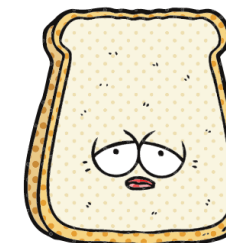
Missing
contextual
information



Missing
Spatial
features

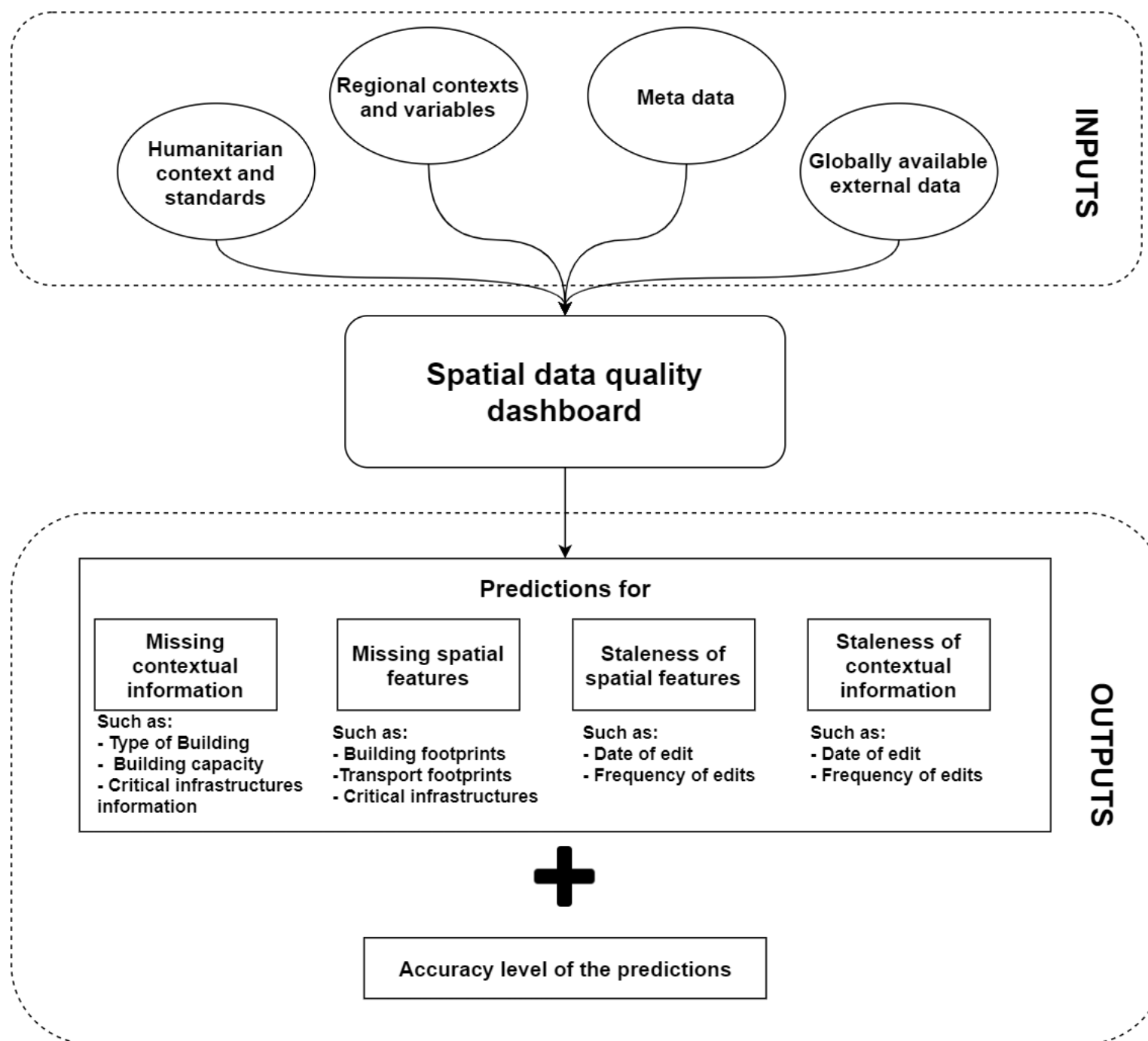


Staleness



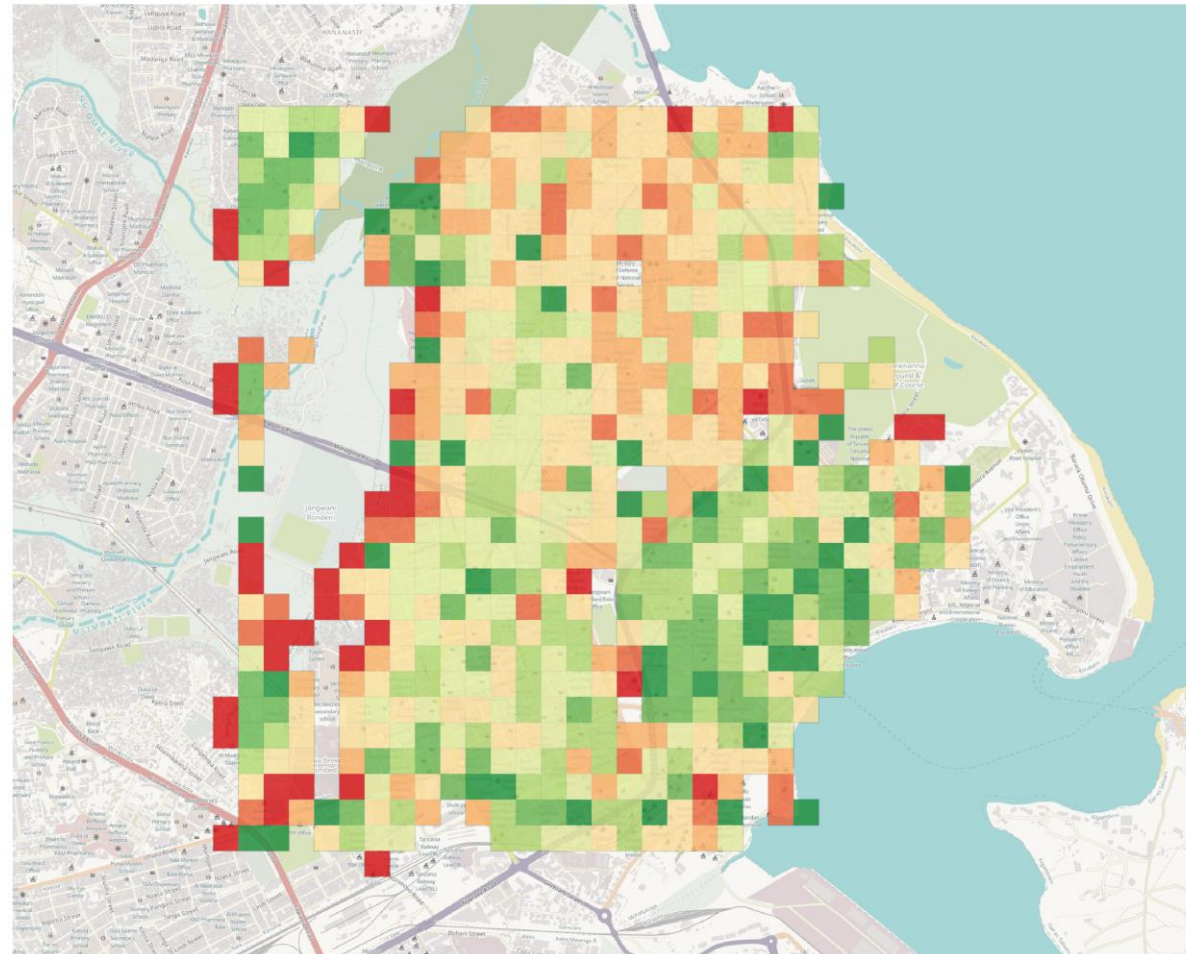
Accuracy of
predictions



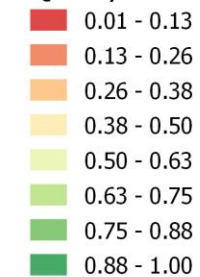


Example output

Quality index with respect to tag completeness: building:material



Quality Index



This research will include

- 1) Taxonomy of spatial and non-spatial information
- 2) Temporal requirements of spatial and non-spatial information
- 3) Methods to monitor and visualize the quality of OpenStreetMap
- 4) Spatial in-variance
- 5) Geo-spatial dashboard style
- 6) Methods to reduce the semantic noise.

Thank you !!

Let's collaborate



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