

Mapping the Unmapped World with Mapillary

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Understanding Risk West and Central Africa



**Mapillary is the street-level imagery platform
that scales and automates mapping**



The world is changing quickly



The total area covered by cities across the world is set to triple over the next 40 years, fueling the need for a faster and scalable way to update maps



Credit: Urban Hub



Scaling and automating maps with cameras



Problem

Traditional maps struggle to keep up with how quickly the world is changing

Solution

- Scale by opening up data collection to any camera, anywhere
- Automate with computer vision to speed up map data extraction

Status

Converting imagery to map data at scale is now a necessary core component in mapping



Any camera, anywhere



Phone



Action cam



Dashcam



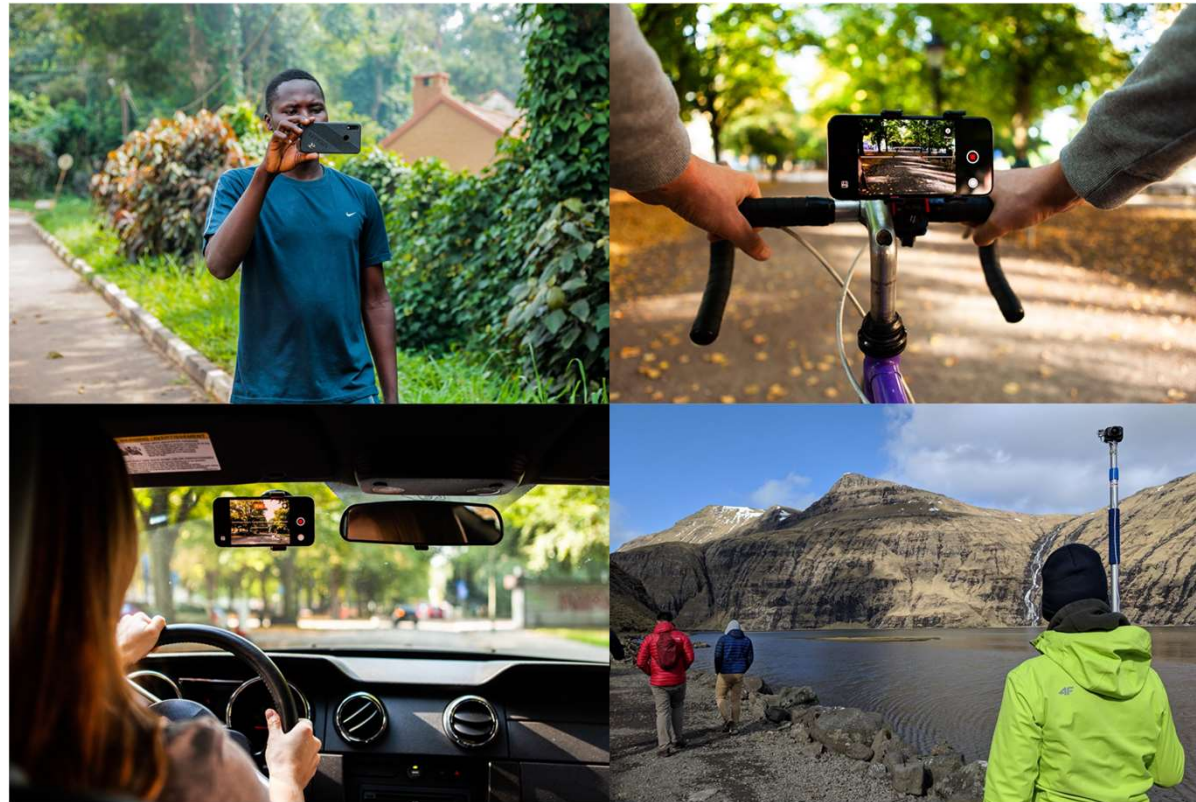
Vehicle cameras



Pro rig



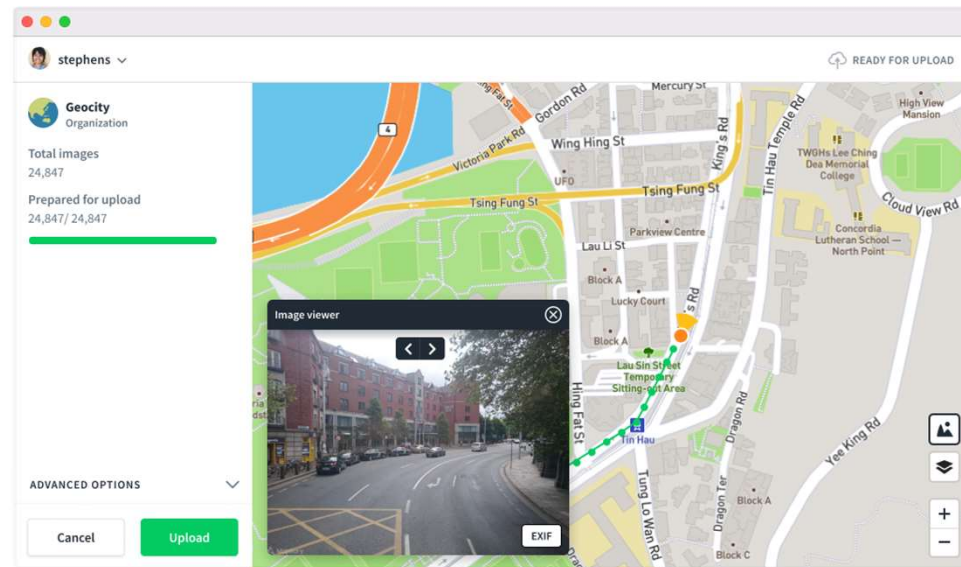
Any camera, anywhere



Simple upload process



Capture and upload directly on the Mapillary mobile apps or use the Desktop Uploader with your own cameras

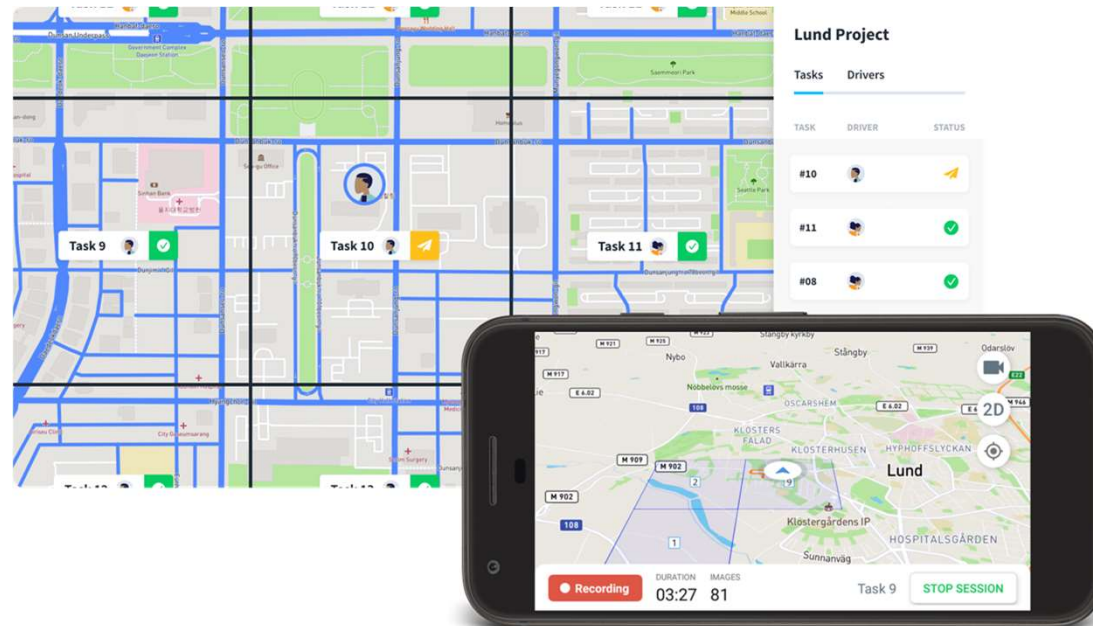


Capture Projects

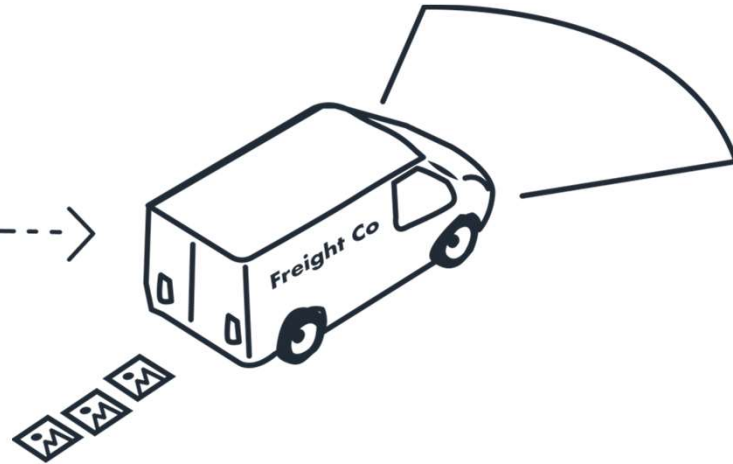


Optimize data collection:

- Designate your area of interest
- Divide the area into smaller tasks
- Assign tasks to team members
- Follow your team's progress

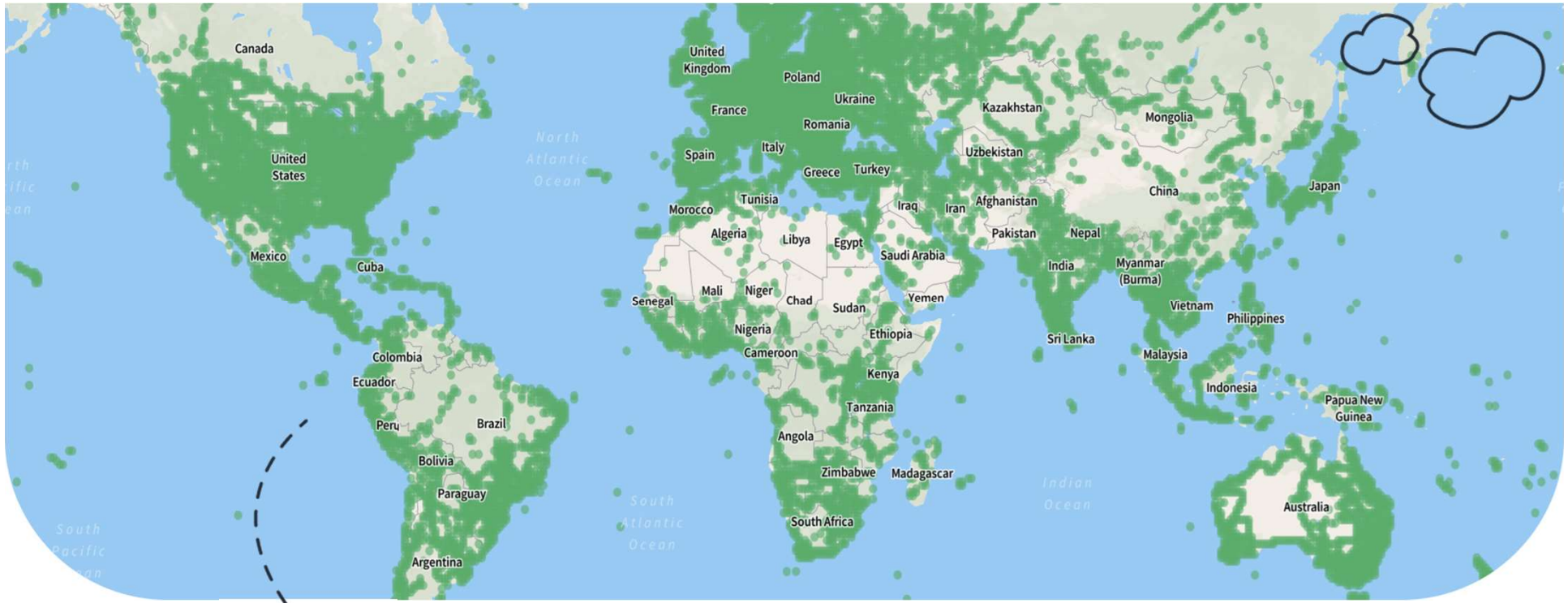


Turn any vehicle into a mapping vehicle



See mapillary.com/dashcam
for more information

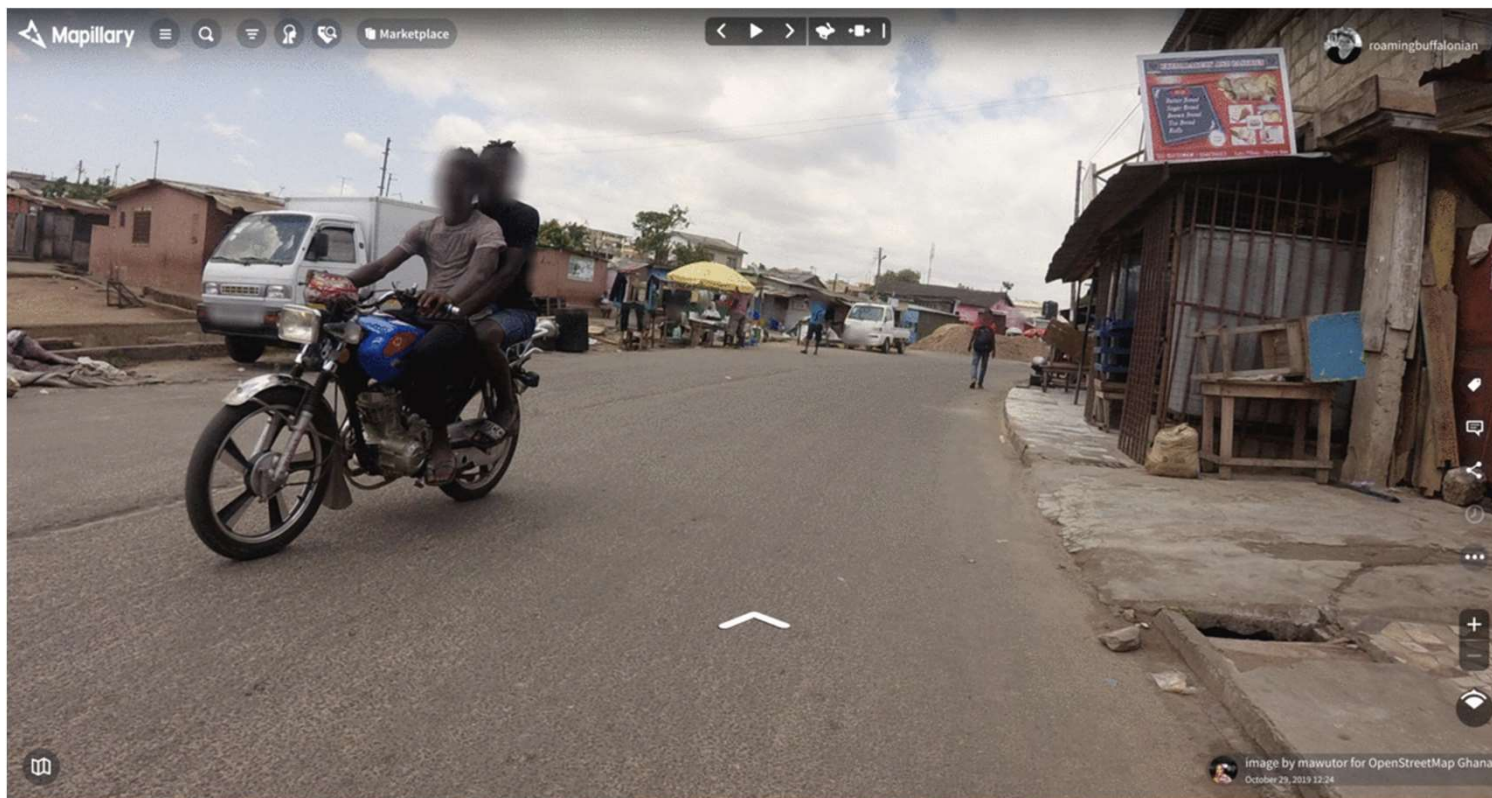




**Roughly one billion images and
50 billion objects detected**



Computer vision technology



Computer vision technology



Computer vision technology



Mapillary extracts 42 types of objects as points + 1500 different types of traffic signs. Objects include:

- Catch Basin
- Fire Hydrant
- Junction Box
- Manhole
- Utility Pole
- Water Valve



Computer vision technology

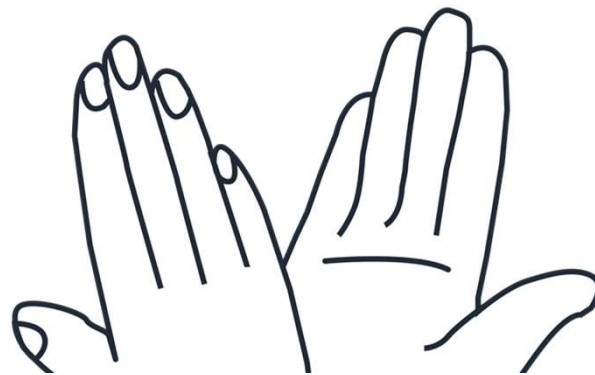


Mapillary anonymizes sensitive information like faces and license plates in every image at 99% accuracy





Building Resilience



Rallying the community: #map2020

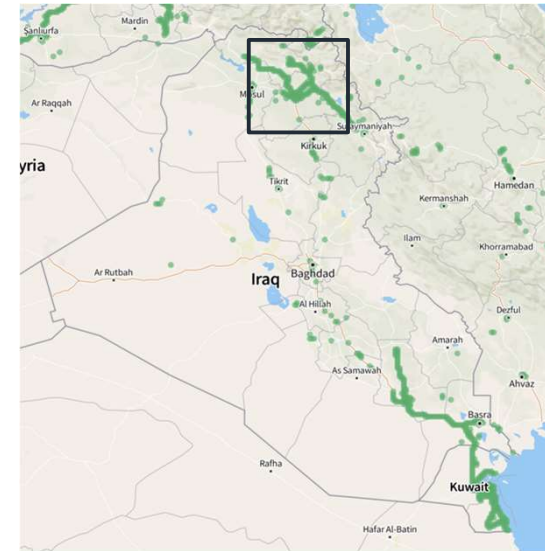


A campaign by Mapillary and Humanitarian OpenStreetMap Team to map the undermapped regions of the world

33 teams from 27 countries:
Including Columbia, Nigeria,
Bangladesh, Iraq, Ukraine, and
Uganda



Earthquake resilience in Erbil, Iraq



Iraq has been hit by 53 earthquakes over the last year. The last major one in 2017 killed 600+ and injured 8,000+ more.



Earthquake resilience in Erbil, Iraq



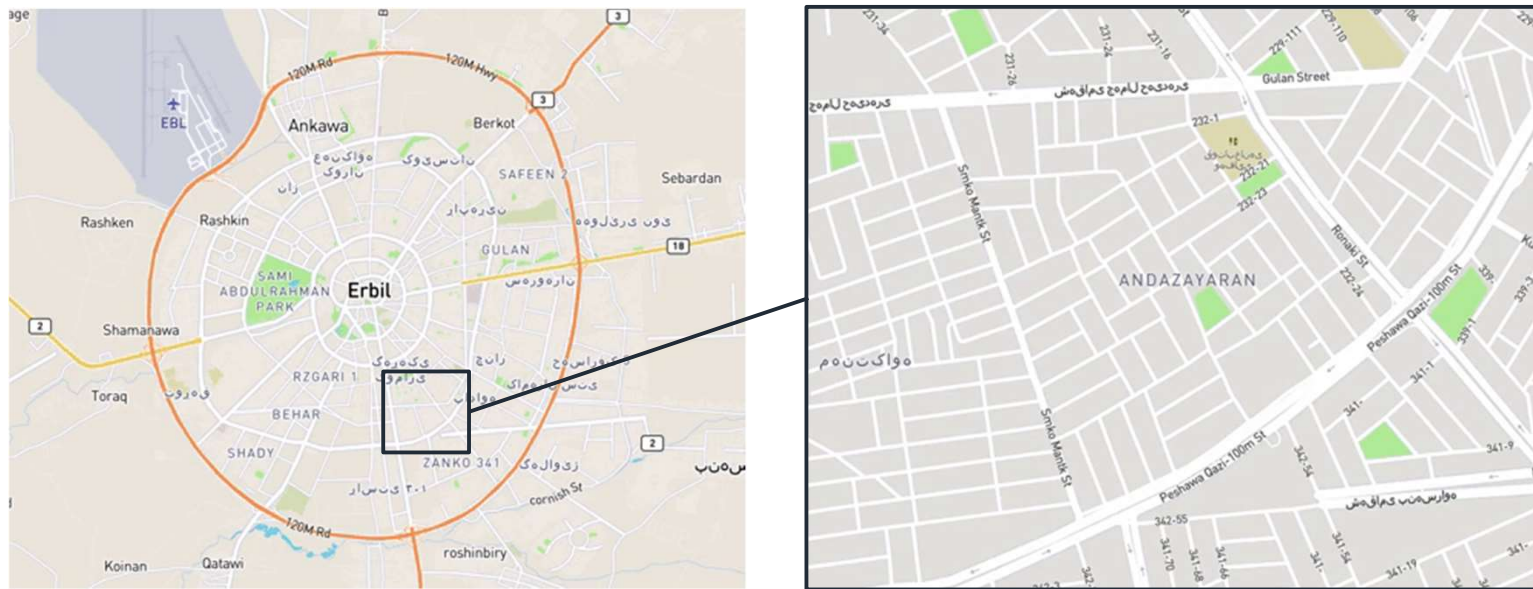
Because of a lack of adequate and dependable maps, humanitarian agencies were struggling to find routes to reach people in affected areas

“ This specific map will be an important tool when a disaster strikes to assess the situation more quickly. The aim is to provide relief workers with the tools to facilitate the decision-making process.”

- Mohammed Faisal, team leader



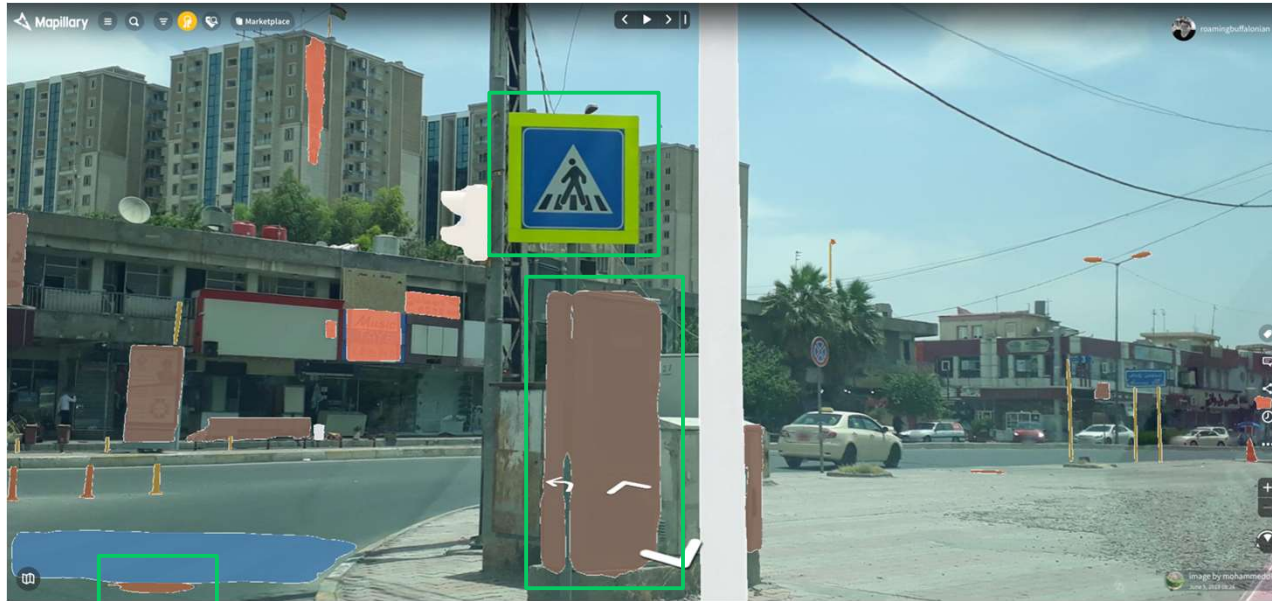
Earthquake resilience in Erbil, Iraq



Over a one-month period, a group of ten mappers captured over 103,000 street-level images across Erbil using the Mapillary mobile apps



Earthquake resilience in Erbil, Iraq



Automatically extracted traffic signs, manholes and junction boxes were added to OpenStreetMap by the Erbil team—with 400 changesets in total



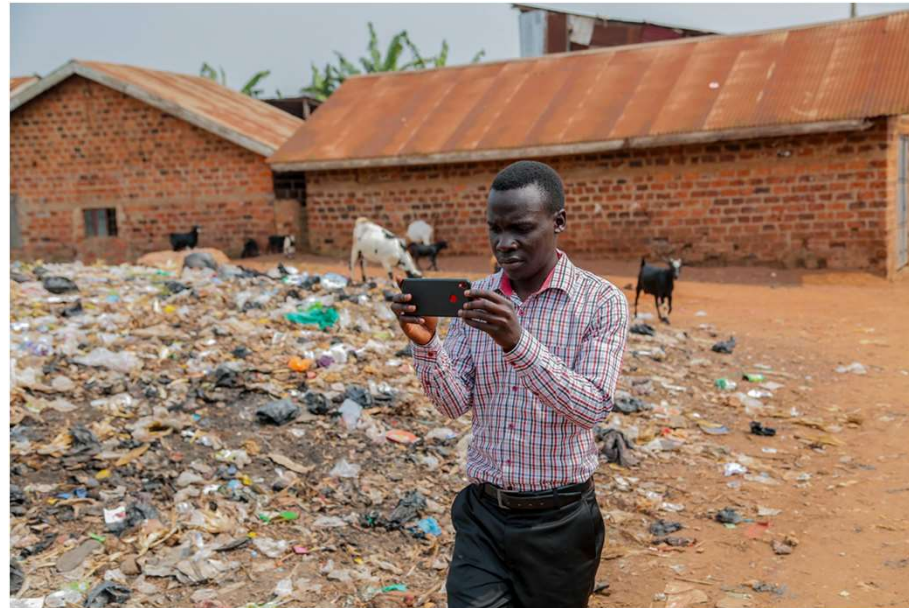
Staying for the rest of State of the Map?



Stop by room Comoe on Sunday at 12:30 for:

Using street-level imagery in the fight against illegal waste dumping: Lessons from Uganda

Presented by Henry Sseruwagi



Staying for State of the Map Africa?



Win a GoPro and help build better maps with Mapillary



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**Let's create
something amazing
together!**

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@thelandscape 

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