

August 1-3, Foundation University, Dumaguete



PISTATA ING MAPA

open data & software • free maps • community • talks • workshops



KAART



mapbox



Mapillary UΔV4GEO

BNHR

COUNTER-MAPPING

X

FOSS4G

Pista ng Mapa

August 1-3, 2019

Foundation University, Dumaguete City

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Who am I?

Ben Hur S. Pintor



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Currently:

Proprietor	BNHR open data & spatial solutions
Data Expert	School of Data
Researcher	STAMINA4Space
GIS Specialist	Cerebro Labs
GIS Specialist	Counter-mapping for Peri-urban Social Justice
Consultant	Asian Development Bank (ADB) Spatial Data Analysis Explorer
Consultant	Hivos

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the role of **technology** in
counter-mapping

Counter-mapping refers to efforts to **appropriate the state's "techniques and manner of representation"** to bolster the legitimacy of "customary or indigenous" claims to resources.

(Peluso, 1995)

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democratization of technology

Access to tools and technologies like **GPS, GIS, and Satellite Imagery** used to be **limited to the state, large companies, and the elite.**

Unsurprisingly, these are the **same technologies** extensively used for the **state's mapping and planning activities.**

Not anymore.

More people now have access to tools and information that were previously reserved for a few.

A man in a dark suit and white shirt is speaking at a podium. The podium has the word "POWER" written on it in large, white, block letters. The background is dark and appears to be a stage setting. The lighting is focused on the speaker.

All power to all the people.

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**characteristics of
counter-mapping tools**

open

accessible

- anyone can freely access and use it

modifiable

- can be extended or modified according to need

shareable

- can be shared among stakeholders

offline-friendly

mobile apps are great **but** there are times when you will be doing field activities in areas without internet or mobile access

using tools that do not need internet or mobile access makes your workflows more reusable and shareable

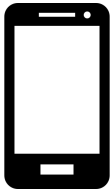
sustainable

minimal to no cost to stakeholders
can easily be maintained
causes minimum disruption to
stakeholders

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counter-mapping **tools**

gps-enabled smartphone



- taking geotagged images
- recording videos
- recording audio
- note-taking

osmand



OsmAnd is a map and navigation app for Android and iOS using OpenStreetMap map database for its primary display.

- recording tracks
- geotagging images and video
- adding POIs to openstreetmap
- works offline

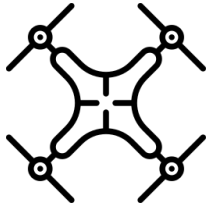
odk & kobo



Open Data Kit (ODK) and Kobo Toolbox (Kobo) are free and open-source software for collecting, managing, and using data in resource-constrained and challenging environments.

- create and share forms
- data collection using a mobile device
- works offline

drones & uav



Commercial and hobby drones have allowed ordinary citizens to get imagery that is more up-to-date and has better resolution than freely available satellite images.

flight planning applications



Flight planning applications like *Data Mapper*, *Pix4DCapture* and *DroneDeploy* allow users to freely create flight plans for their drones to help in drone-mapping activities.

opendronemap



OpenDroneMap is a free and open source solution for processing aerial images including those from drones.

- generate orthophotos
- generate DEMs
- Generate point cloud

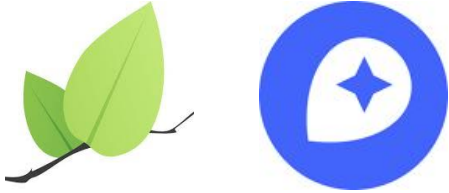
qgis



QGIS is a free and open source
Geographic Information System

- cartography
- spatial analysis
- 3D mapping

leaflet & mapbox



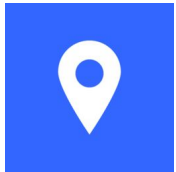
Leaflet and Mapbox are tools for creating web and mobile-friendly maps.

openstreetmap



OpenStreetMap is a collaborative project to create a free editable map of the world. It allows users to add data and information to geographic features around the world.

mapeo

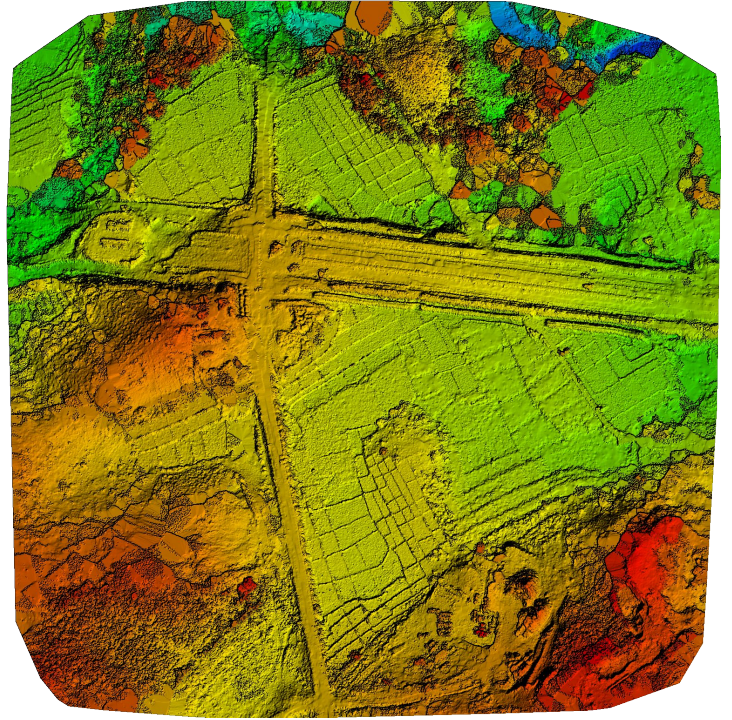


Mapeo is an easy-to-use offline mapping app built on iD Editor, the default editor for OpenStreetMap.

Summary of sample counter-mapping tools

state's tools	sample counter-mapping tools
satellite imagery	drones & uav, opendronemap
data gathering	smartphones, osmand, odk, kobo
gis	qgis, grass, leaflet, mapbox
mapping	openstreetmap, mapeo

Sample outputs | processed orthophoto & dem from drone



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Thank you &
Let's go **counter-mapping!**



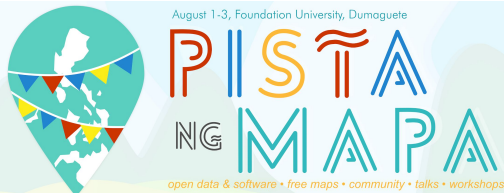
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Thank you!



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