GEO-ETHICS: PAST, PRESENT, FUTURE

Yola Georgiadou
PROLOGUE
The tweeting president
Disruptive apps

Google earth
amazon.com
Netflix
M-PESA
skype
facebook

©

Non disruptive apps

Commercial apps

Social interaction apps

Collaborative apps

Political apps

Ushahidi
SEMA
EMERGENCE OF GEO-ETHICS
GEO

What can my data tell me about here?

Geo-ethics

What can my data tell you about me?
Who is “you”?  

What can my data tell you about me?  

- State
- Data companies
Who is “you”? 

- State
- Data companies

What can my data tell <strong>you</strong> about me?
The state must ...

1. classify

2. decide
   – Is the classification legitimate?
   – Are the inferences legitimate?
But citizens can mobilise
Don’t count us, count your days!

Berlin 1987
The state says this a forest?
Who is “you”?

What can my data tell you about me?

- State
- Data companies
Hofmann’s step model

1. Geometric raw data
2. Time stamps
3. Observation over time
4. Geometry -> Geography
5. Semantic Maps
6. Social Data
7. Predictive Models

Where?

When?

Habits
Repetition

Other persons

Addresses and Locations

Businesses, Organisations, Points of interest

Predictions

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Hofmann’s step model

Raw data

1. Geometric raw data

2. Time stamps

Where?

When?
Geometric raw data
What do my data tell you about me?

„I moved along a trajectory (measured in discrete intervals) on the globe from A to B.“

A = +47.6612222, +9.176919
B = ...

What is my action radius?

Straight ahead or round about?
+ Time stamps

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<td>14.22</td>
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<td>12.99</td>
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</table>
What do my data tell you about me?

„I moved with an average speed of 14 km/h from A to B. Possibly on a bike.‘‘

How athletic am I? How fit am I? Did I stop?

Do I own a bike? Did I get lost?
Hofmann’s step model

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Where?
When?
Habits
Repetition
Addresses and Locations
Businesses, Organisations, Points of interest

Raw data
Persistent IDs
Background data

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What do my data tell you about me?

„This week I visited my house doctor XY three times.“

„This week I spent 3 hours at Café Henrici.“
„I spent 30 minutes at Ochsner Sport in the Bahnhofstrasse.“
„On Friday at 7:00 I saw the movie Still Life in Arthouse.“

„This week I went to the City Pool for swimming twice for approx. 50 minutes.“
„Saturday evening I was at Club Hive until 3:00am.“

„Monday to Thursday I stop at 8:00am at Kindergarten XXX.“
„Within 3 days I visited the Police Station in Pfäffikon twice.“

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Hofmann’s step model

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Other persons
Businesses, Organisations, Points of interest
Addresses and Locations
Habits
Repetition
When?
Where?

Background data
Persistent IDs
Raw data
Assumptions:

• Wall-to-wall data collection for large part of population
• Essential addresses inferred for every user
• Data connected via Social Graph=(e.g. Facebook)

Then motion data at a social level can be interpreted
What do my data tell you about me?

„How often do I meet my son, when and where?“
„With whom do I often go hiking or biking?“
„How much time do I spend with my spouse? How does my marriage fare?“
„Who are my colleagues?“
„Do I still see friends from school?“
„Are there persons, who I meet very often lately?“
„Did I make any friends during vacation?“
„Am I active in clubs or other organisations (e.g. political parties)?“

„Is it possible to derive from all my traces, that you are here and are listening to this presentation?“
Hofmann’s step model

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Predictions
Other persons
Businesses, Organisations, Points of interest
Addresses and Locations
Habits
Repetition
When?
Where?

Collective data
Background data
Persistent IDs
Raw data

© Thomas Hofmann 2014
What can you infer about me?

„How probable is it that I react to an advertisement? ..., that I conclude a purchase?“
„Which could be my next travel destinations?“
„When will I be on the road with my car?“
„Am I receptive to religious or political propaganda?“
„How interesting could another person be for me?“ (Dating, Partnering)
„Am I trustworthy?“
Location-based classification...Inferences?
HOW IS PRIVACY DEFENDED IN EU?
EU - Personal data processing ...

1. Ethics

• Information flows in a specific context, governed by certain norms
EU - Personal data processing ... 

1. Ethics
• Information flows in a specific context, governed by certain norms

2. Law
• based on a specific purpose made explicit by the data controller
• allowed if the subject has given consent to the processing for one or more specific purposes
KEY SERVICES - AFRICA
PUTTING WOMEN'S RIGHTS AT THE HEART OF OUR WORLD
WHO DEFENDS PRIVACY IN AFRICA?
Key services in Tanzania
personal data processing

**Context**: local and national bureaucracy where (in)formal rules and procedures either compete or are complementary

**Purpose**: Who will guarantee the purpose of data processing?

**Consent**: Can villagers give their informed consent?
<table>
<thead>
<tr>
<th>Context</th>
<th>Education</th>
<th>Health</th>
<th>Water</th>
<th>Tenure</th>
<th>Security</th>
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USAID
Mobile Application to Secure Tenure (MAST)
MAST Framework

The key component of MAST Framework is an Android-based **Mobile Data Capture Application** that captures land rights information.

Data collected and stored on the users’ handheld device.

Data sent to the cloud.
## Context

<p>| | |</p>
<table>
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<td>2.</td>
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<td><strong>Little</strong></td>
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<td>3. Outreach and training; Field adjudication and data processing</td>
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<td>Few</td>
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<td>Many</td>
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2. Procedures and rules (e.g. printing!)

1. Adjusting STDM to AF and CCRO

4. Dispute resolution; data verification and data processing

3. Outreach and training; Field adjudication and data processing

ICT
Disruptive

Durable

Political Apps

Context: Digital incrementalism
Simplification of rules
Purpose: Data controller liable
Consent: Algorithmic transparency

Social media

Disruptive
## Summary

<table>
<thead>
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<th>Countries</th>
<th>Who classifies?</th>
<th>Who is classified?</th>
<th>Who defends privacy?</th>
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<td>Nation-state</td>
<td>Population and territory</td>
<td>Trias politica</td>
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<td>(e.g. EU)</td>
<td>Data companies</td>
<td>People and location</td>
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<td>- Purpose binding?</td>
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GEO-ETHICS IN AFRICA?

Surveyors? + Lawyers? + Ethicists?