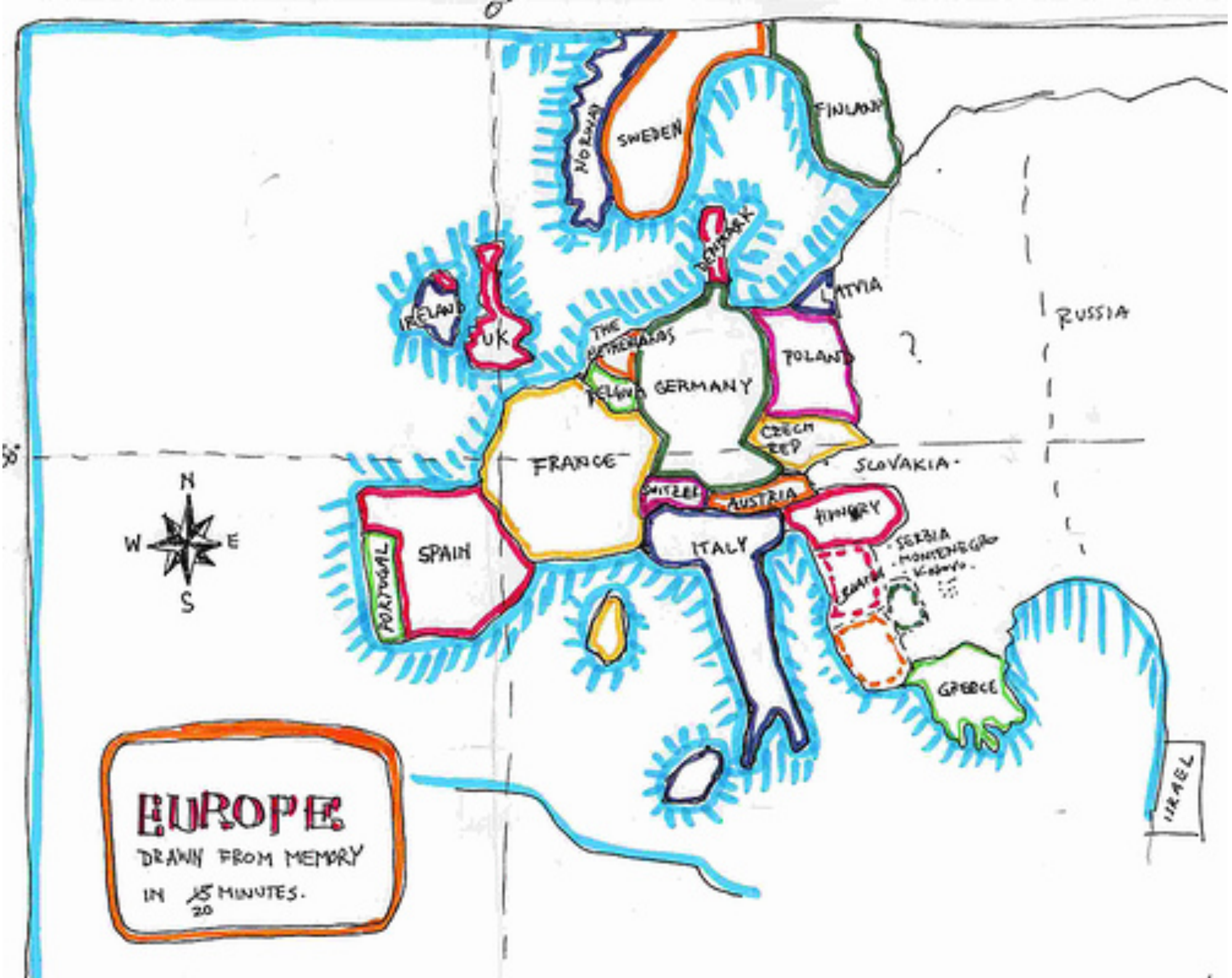
Facebook and Privacy:

The Balancing Act of Personality, Gender, and Relationship Currency

@danielequercia

<who am i>

daniele quercia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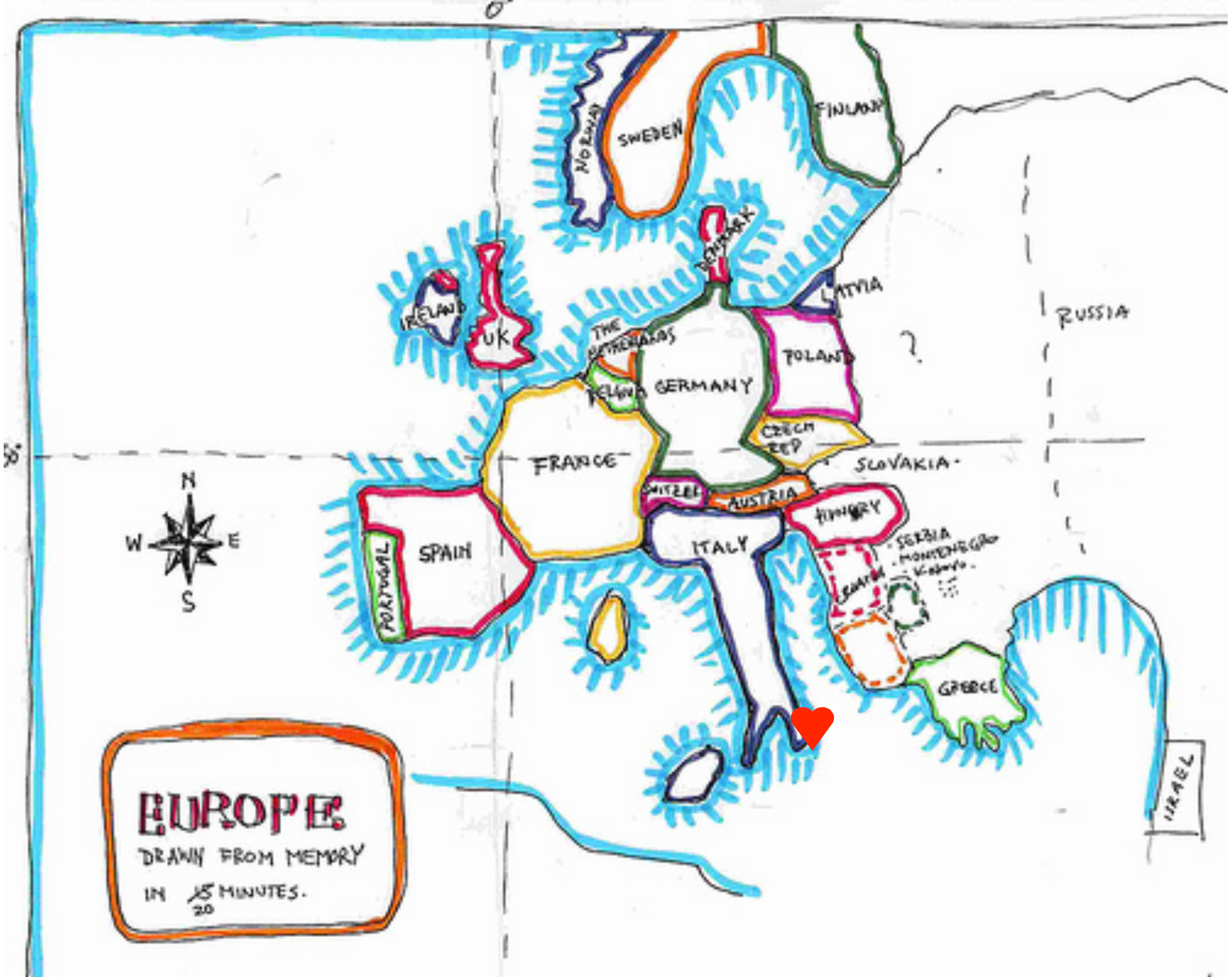
DRAWN FROM MEMORY
IN 15/20 MINUTES.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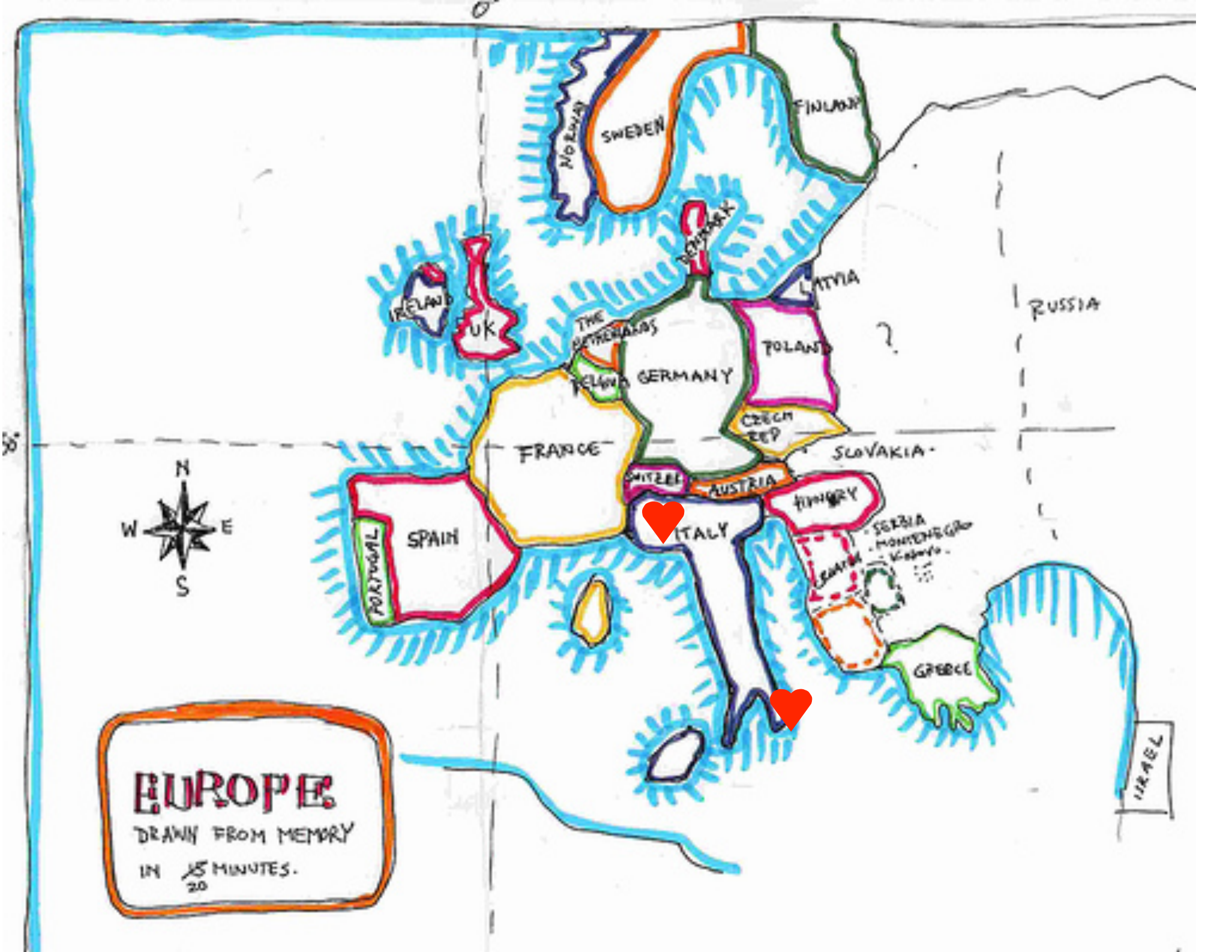
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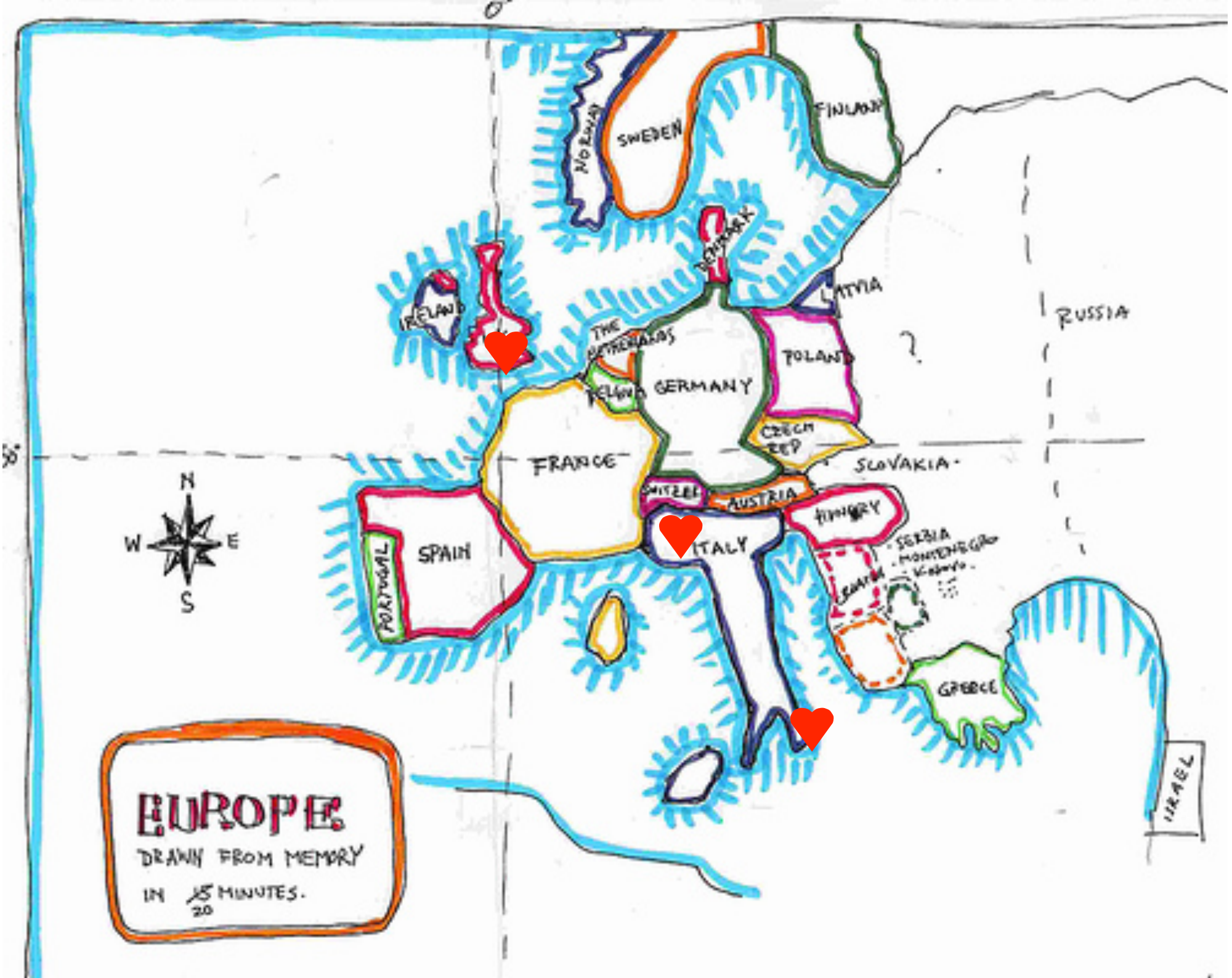
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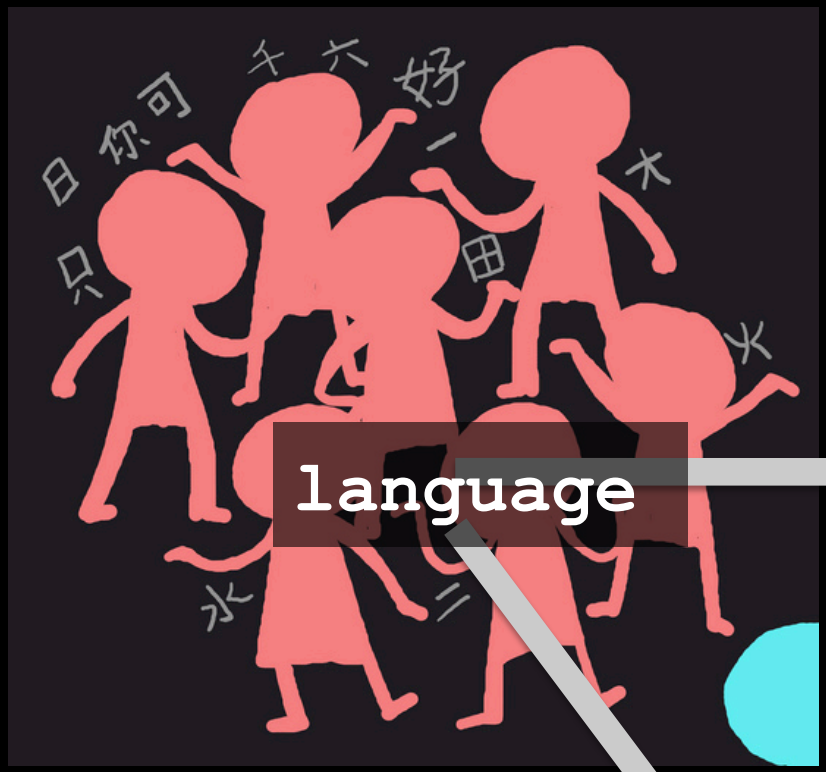
UCL

offline & online



language

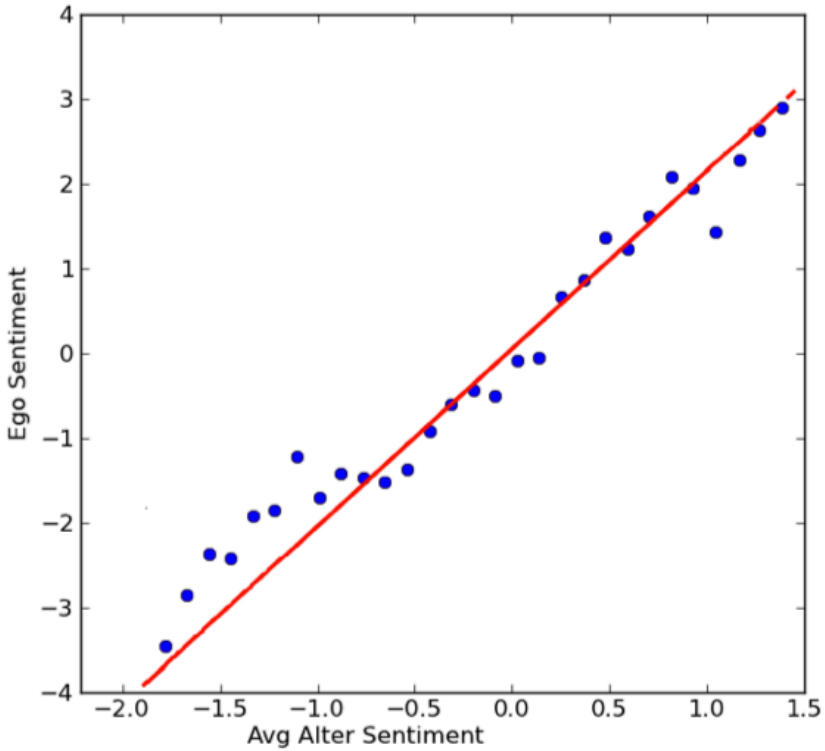
personality

social media

The Social World of Twitter WEDNESDAY 12:10

1. Brokers tend to cover diverse topics
2. Users have a “typical” geo span
3. “Happy” (“sad”) users do cluster together

YOU



YOUR FRIENDS

Talk of the City TODAY 5:30

<goal>

focus on privacy…

Assign a number to each Facebook user

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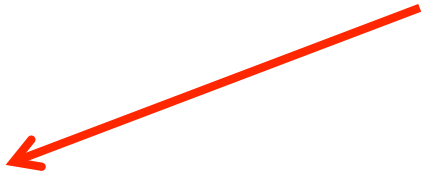

= user's disposition to **disclose** & **conceal** what is **considered** private and public in Facebook

Easiest way: Count!

looking
education
residence
political
religion
hometown
position
employer

X disclosed all 8
Y disclosed only 1

Our way: Item Response Theory (IRT)

Traditional Goal:

Design **tests** & build **scales**

respondent's disposition to **answer difficult** questions

Our way: Item Response Theory (IRT)

Traditional Goal:

Design **tests** & build **scales**

Goal here:

Design disclosure&concealment **models** & build **scales**

Our way: Item Response Theory (IRT)

Traditional Goal:

respondent's disposition to **answer difficult** questions

Goal here:

user's disposition to **disclose**(conceal) what is **private**(public)

Our way: Item Response Theory (IRT)

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education
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$$P_{ij} = \frac{1}{1 + e^{-\alpha_i(\theta_j - \beta_i)}}$$

α_i field i discriminative power

β_i **field** i **sensitive** score

θ_j **user** j **disclosure** attitude

DATA **representative** for age, gender, #contacts, distribution of traits

N=1,323 Facebook Users in US (58% women)

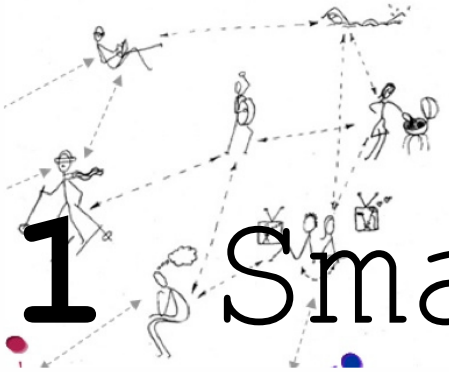
Age [18,60] median 24

#contacts [32,998]

Apply IRT to what's disclosed to

* Facebook **Community** at large
* Facebook Friends (one's Social **Circle**)

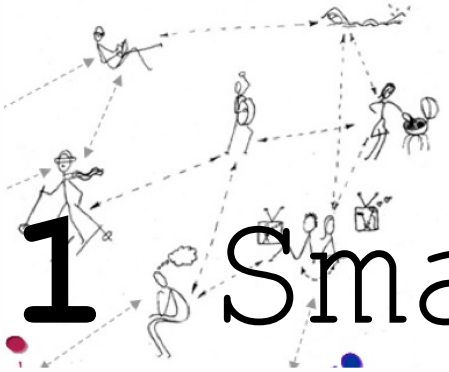
1 Smart Privacy Mob
2 Who are they
3 What they disclose



1 Smart Privacy Mob

Previously: Westin has divided people in

1. **privacy fundamentalists**
2. **pragmatic majority**
3. **marginally concerned**



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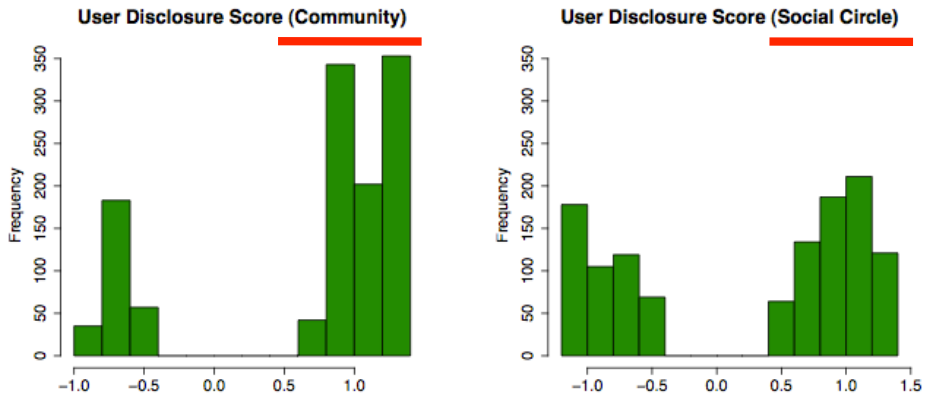
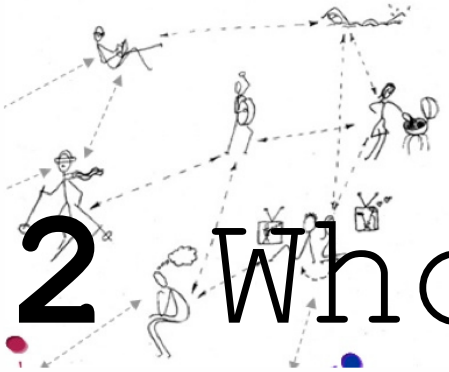


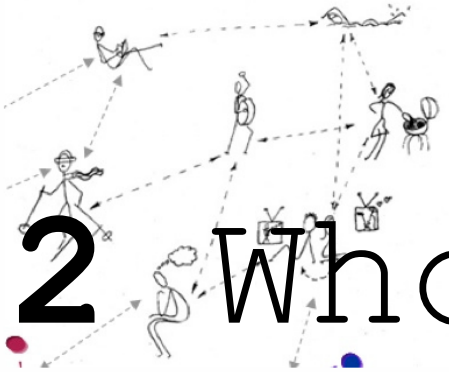


2 Who are they?

Variable	User Disclosure Score	
	Community	Social Circle
O	**0.14**	**0.10**
C	-0.01	0.04
E	**0.05**	**0.05**
A	-0.03	-0.02
N	-0.03	-0.02
Self-Monitoring	**0.10**	**0.07**
Male	**0.15**	0.03
Contacts (*log*)	**0.14**	**0.10**
Age (*log*)	**-0.12**	**-0.08**

Those who share more sensitive info are:

- Open to new experience
- Self-monitoring
- Male
- More Active
- Younger



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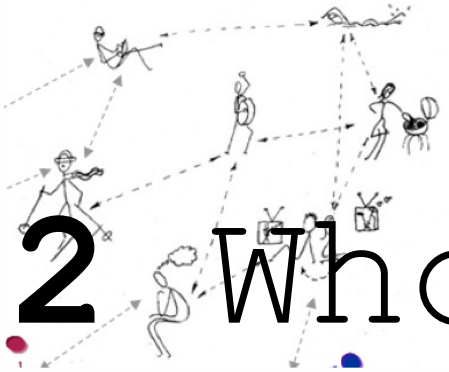

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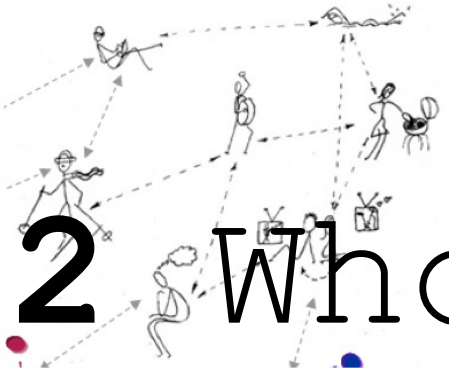

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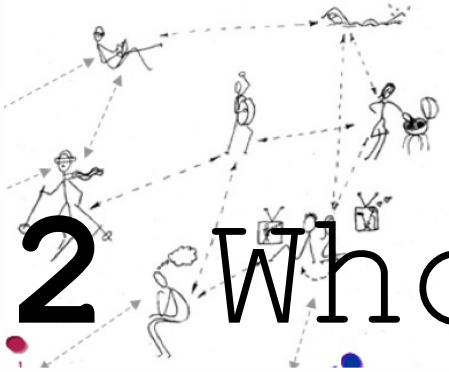

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Results: Good for descriptive analysis; not for (linear) prediction

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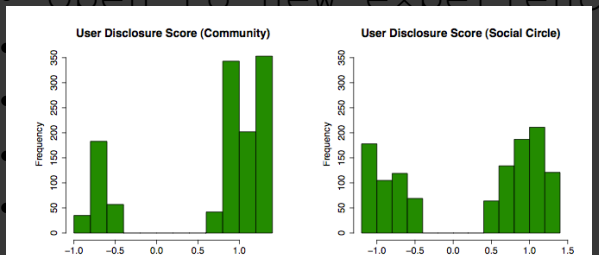
BUT…



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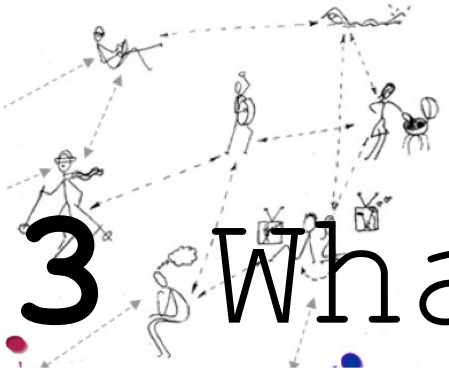
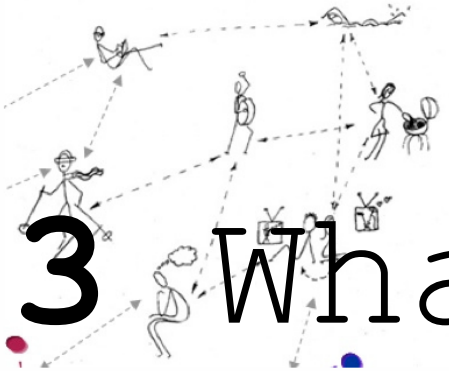


3 What's sensitive

Field Name	Field Sensitive Score	
	Community	Social Circle
looking	1.4	1.3
education	1.8	1.7
residence	**1.9**	1.4
political	2.1	2.1
religion	2.2	2.2
hometown	**2.3**	1.6
position	**8.4**	7.7
employer	**9.9**	8.1



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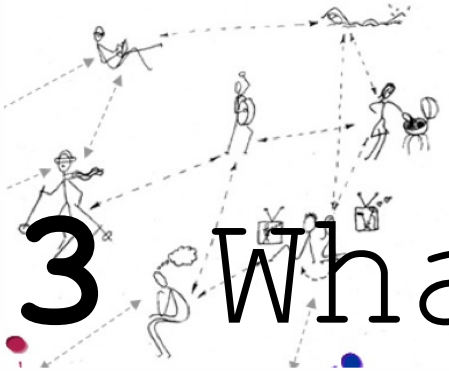

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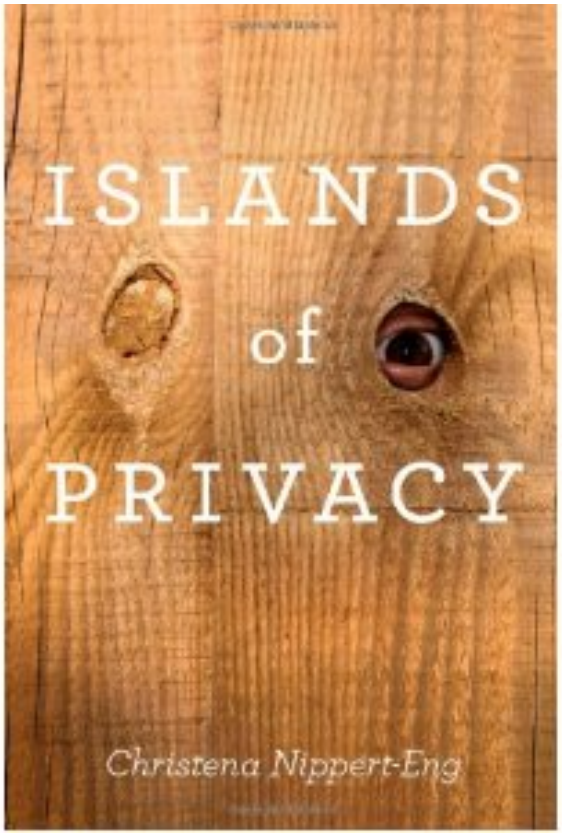

Social Currency

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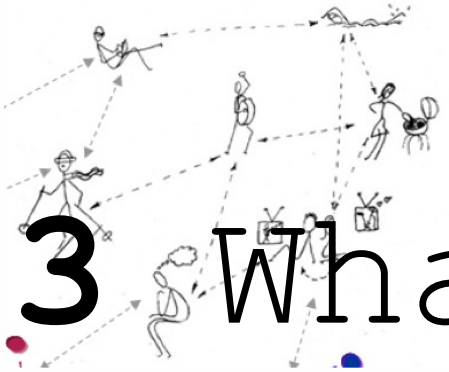
OK to disclose

OK to conceal



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Community vs. Social Circle

So what?

Theoretical Implications

Practical Implications

Short term - Language & RecSys & Crime

Example 1: Twitter & Personality

1 **listeners, popular, & influential: extrovert & emotionally stable**

2 **highly-read: open to new experiences**

predicting personality with twitter

Trait	*RMSE*
O	0.69
C	0.76
E	0.88
A	0.79
N	0.85

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Send follow request

Tweets Following Followers Lists

@emurciano's Tweets are protected.

Only confirmed followers have access to @emurciano's Tweets and complete profile. You need to send a request before you can start following this account.

About @emurciano

1,586 Following | 193 Followers | 0 Listed

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Similar to @emurciano · view all

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Predicting Personality with Twitter

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