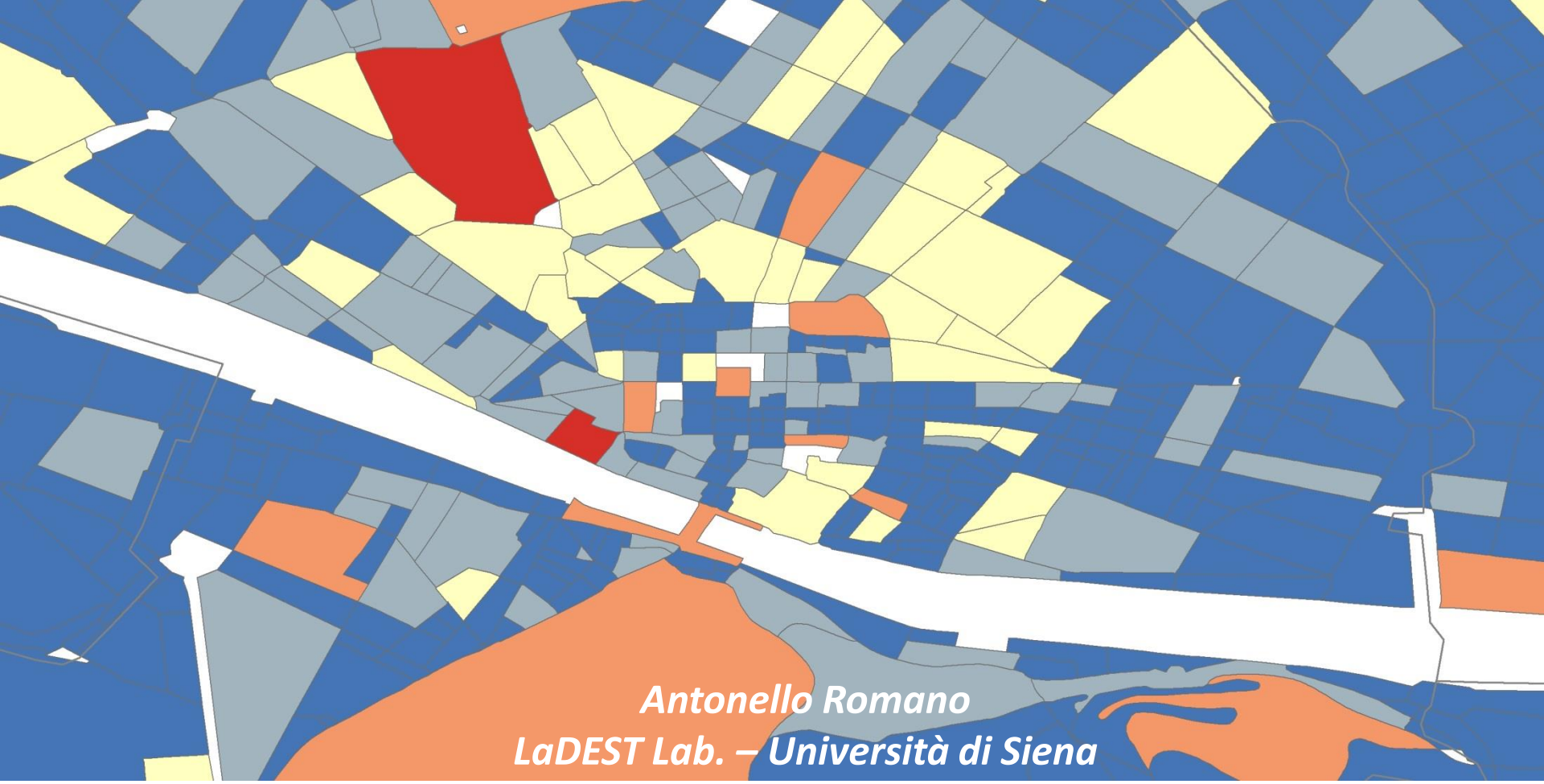


Antonello Romano
LaDEST Lab. – Università di Siena

‘LOCATING THE GEOSOCIAL TOWN’

Spazi digitali e nuove rappresentazioni urbane attraverso l’utilizzo di

VGI, OPEN GEODATA & (SPATIAL) BIG DATA

INTRODUZIONE

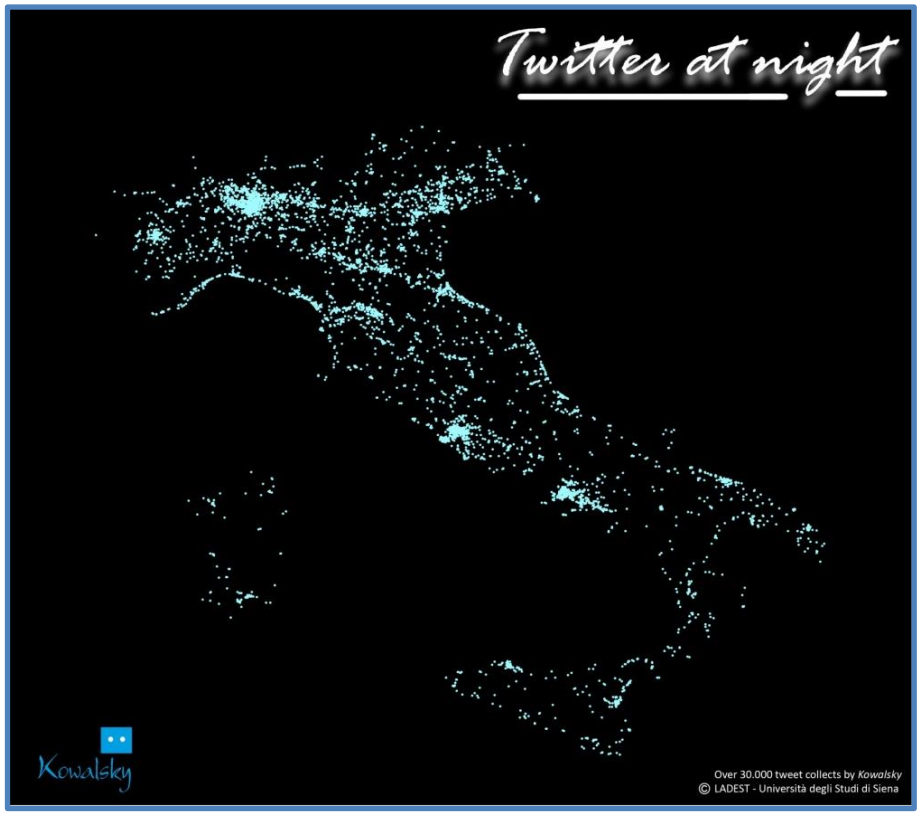
❑ **Domanda:**
se e in che modo l'utilizzo della Crowdsourced Geographic Information possa determinare un arricchimento delle informazioni in ambito urbano
→ **landscapes of Cyberspace**
→ **Internet come Trama della nostra quotidianità (M. Castells)**

❑ **Caso studio:**
Comune di Firenze

❑ **Metodologia:**

✓ Open Geodata presenti sul portale "opendata.comune.fi.it";
- sezioni di censimento Istat;
✓ i contributi geo-taggati dagli utenti in 1 anno → VGI
(Wikipedia, Twitter, Flickr, Instagram --- Openstreetmap)
✓ Hot-spot analysis
✓ Distance decay

URBAN DIMENSION



Data based geography

30.000 Tweets collects by Kowasky

1 night

r= 0.75

Brightest areas of ITALY are the most urbanized

The Earth from space - NASA

CHIAVE DI LETTURA

- **Location → Where?**
- **Locale →Shape of space**
- **Sense of Place →Emotional**

  AGNEW J. (1987)

PLACE

- **World Wide Web (1991)**
  TIM BERNERS LEE:

'The Web is more a social creation than a technical one.'
It was designed for a social effect to help people work together

- **WEB 1.0 -> WEB 2.0 (2004)**
  TIM O'REALLY

personal website ----------->blogging
Britannica Online ----------->Wikipedia
Ofoto ----------->Flickr
Content management systems ----------->wikis
directories (taxonomy) ----------> tagging ("folksonomy")

NEOGEOGRAPHY

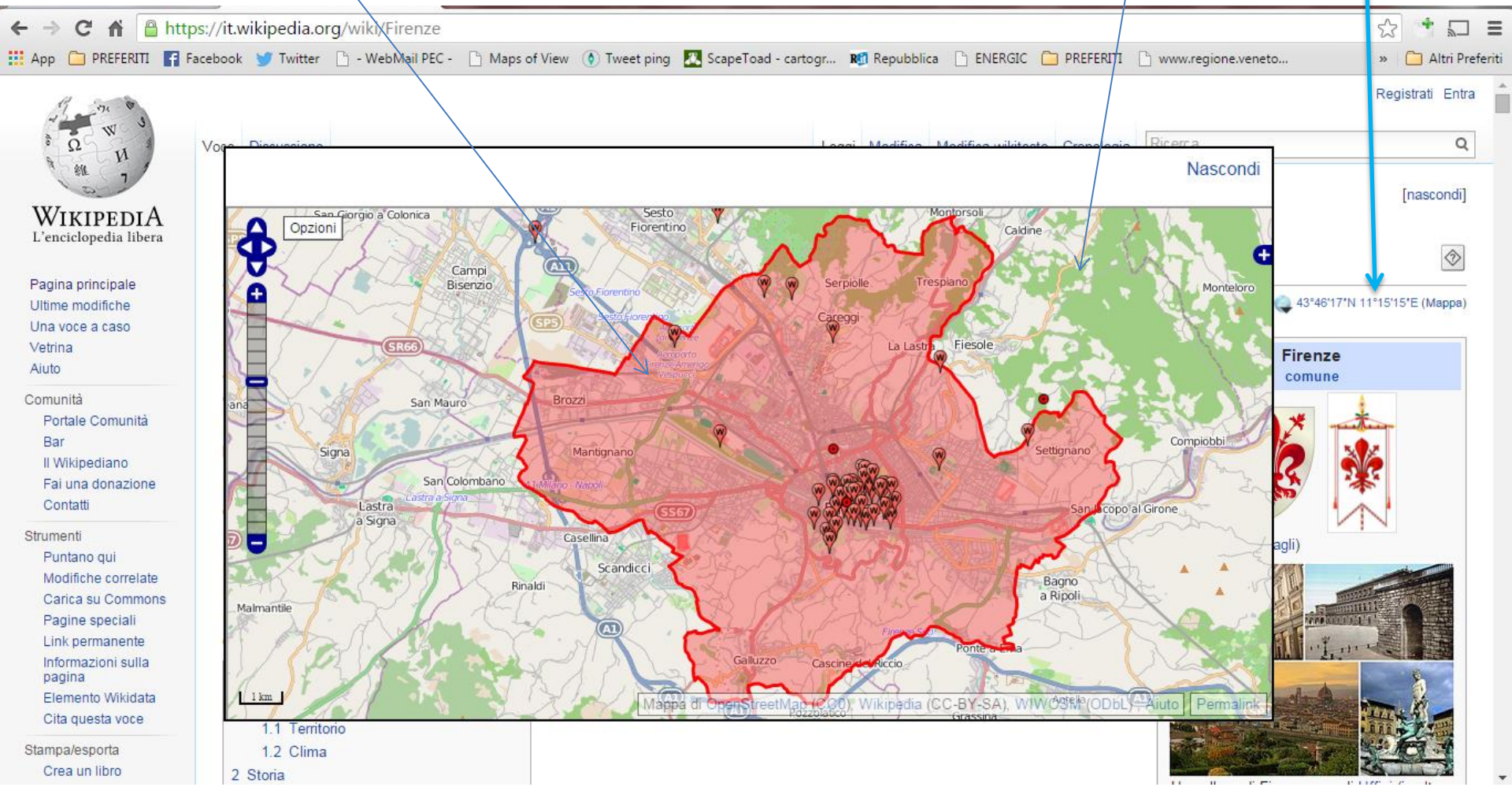
OPEN GEODATA

Coordinate

WIKIPEDIA (geowiki)

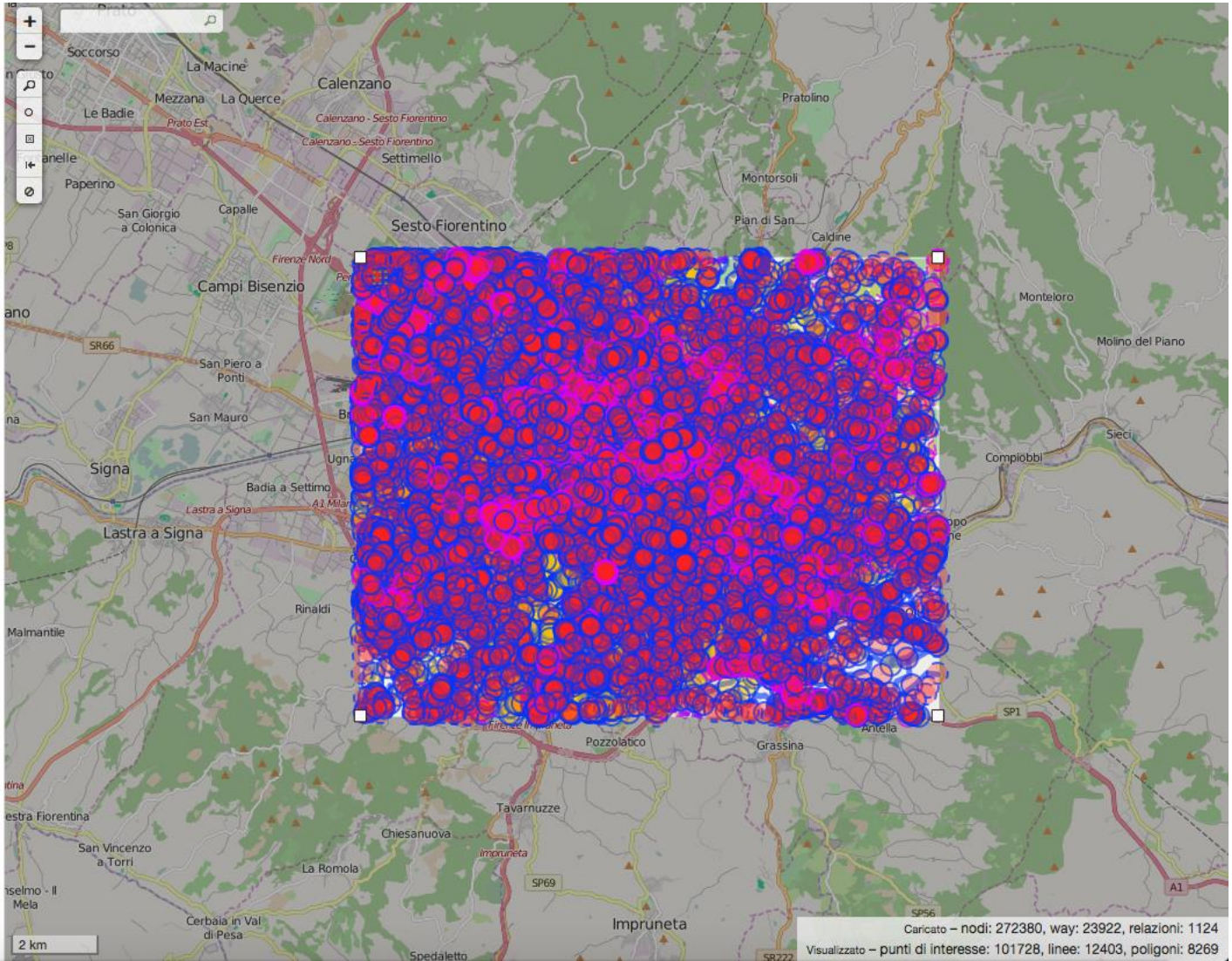
OSM

FIRENZE (IT):72933 visite negli ultimi 3 mesi



```
/*
This is a simple map call.
It returns all data in the bounding box.
*/
[out:xml];
(
  node({{bbox}});
  <;
);
out meta;
```

VETTORI
101.728 POI
12.403 Linee
8.209 Poligoni




Catasto 0.72%
Cultura 0.72%
Ambiente 12%
datigis.comune.fi.it
Turismo 3.60%
Attività Economiche 2.5%
Uso Suolo 1%
Strade 0.3%
Urbanistica 20%
Sezioni cens. 1.44%

IL PALINSESTO DEL LUOGO 2.0

USER GENERATED DATA 2.0

SOCIAL GEODATA → LANDSCAPES OF CYBERSPACE? DIGIPLACE?

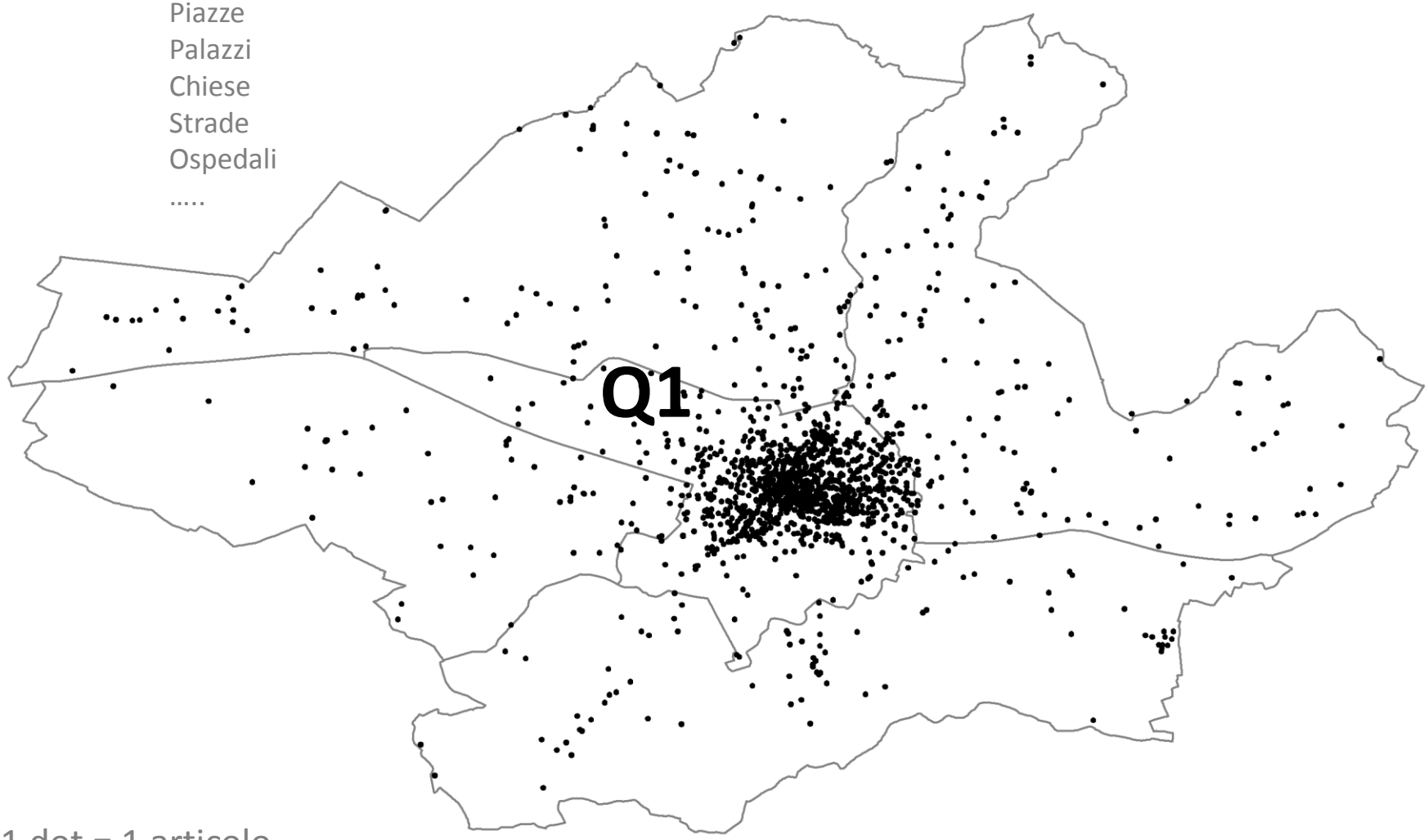
WIKIPEDIA

❑ Location

1.500 GEOWIKI

https://antoromano.cartodb.com/me?utm_source=Footer_Link&utm_medium=referral&utm_campaign=Embed_v1&utm_content=antoromano

Hotel
Ville
Piazze
Palazzi
Chiese
Strade
Ospedali
.....

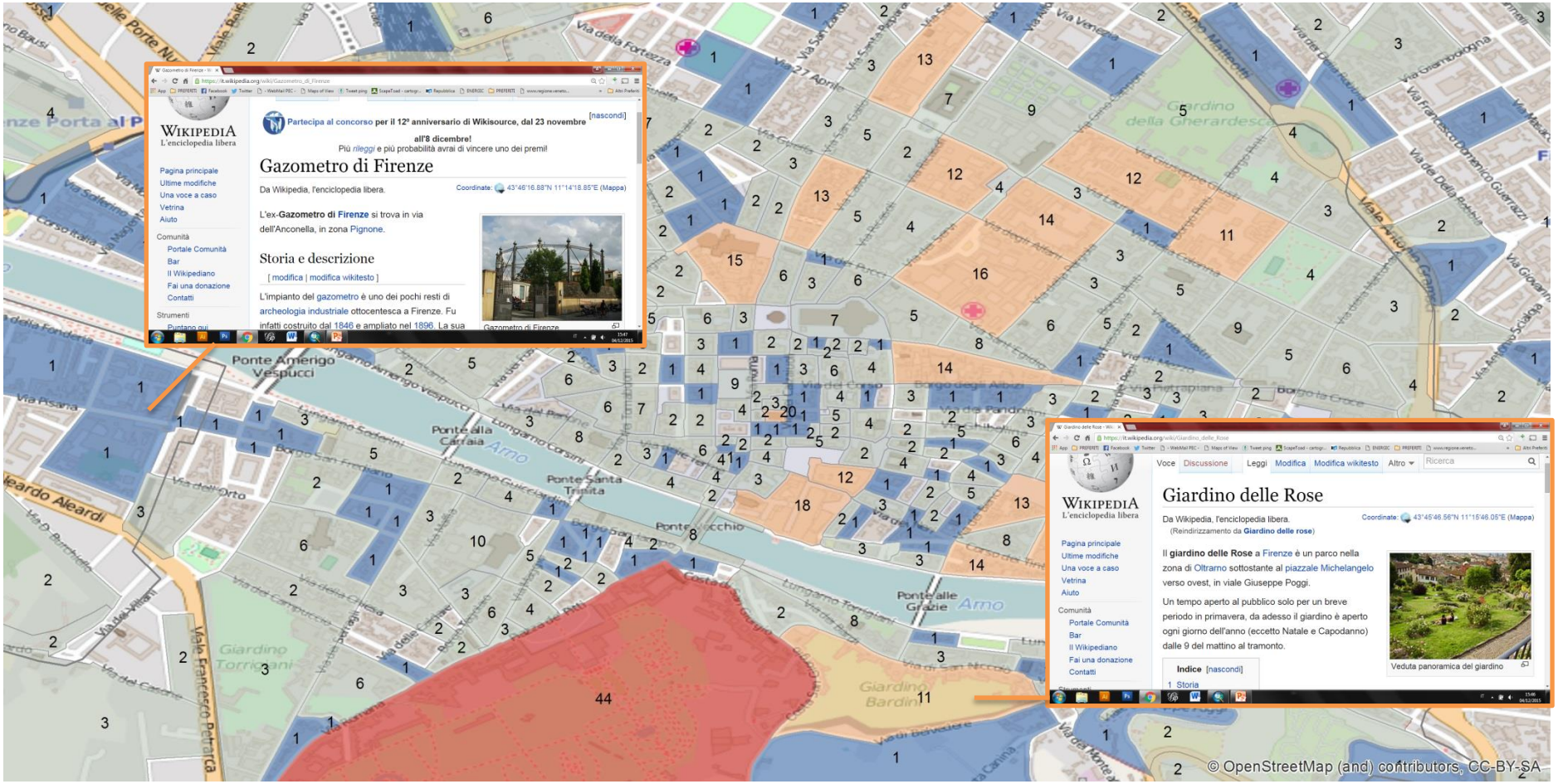


1 dot = 1 articolo

WIKIPEDIA

- ❑ Location
- ❑ Sense of Place

OPEN GEODATA + USC GEODATA



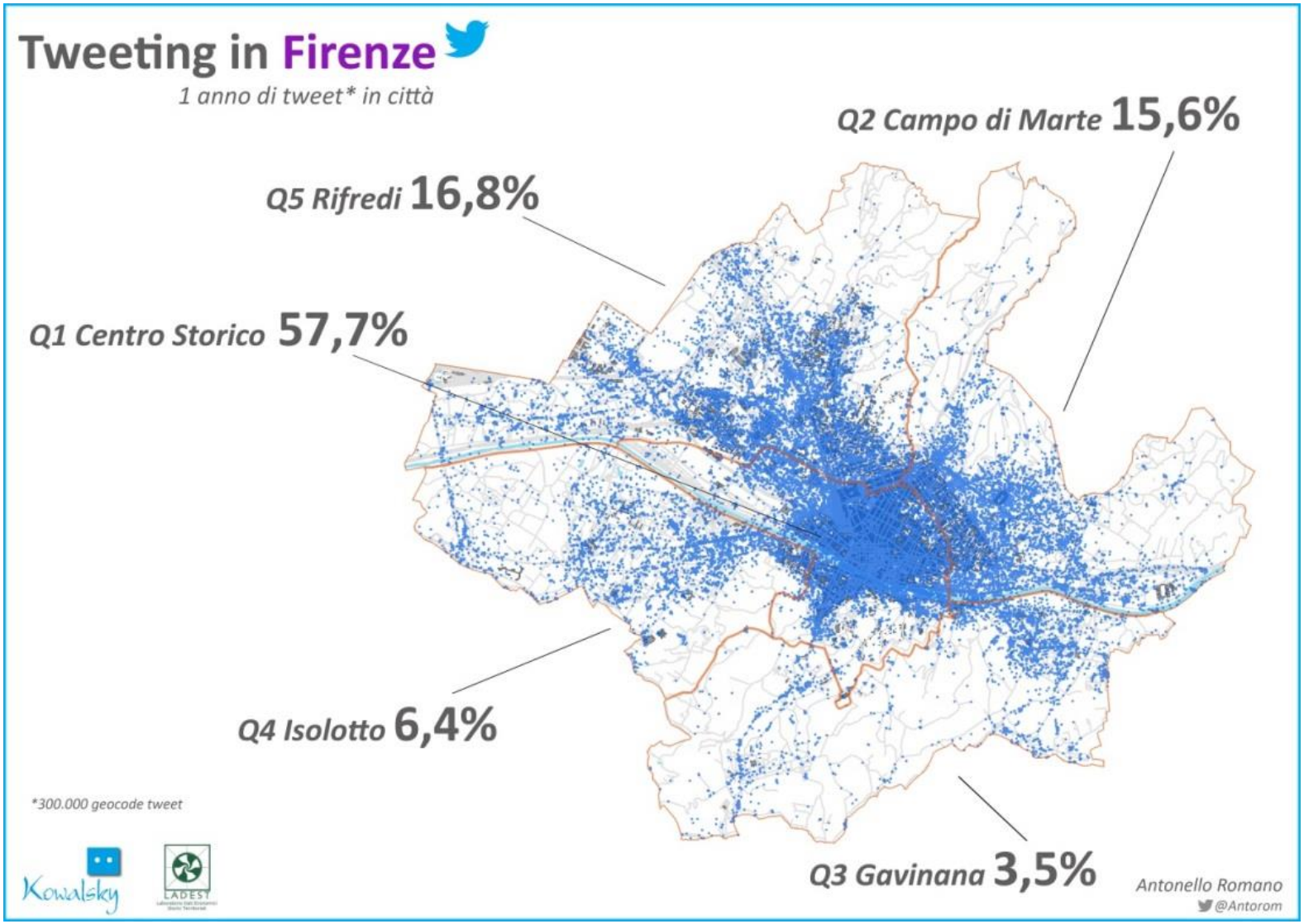
Min → Max

Geowiki

Sezioni Censimento Firenze

TWITTER

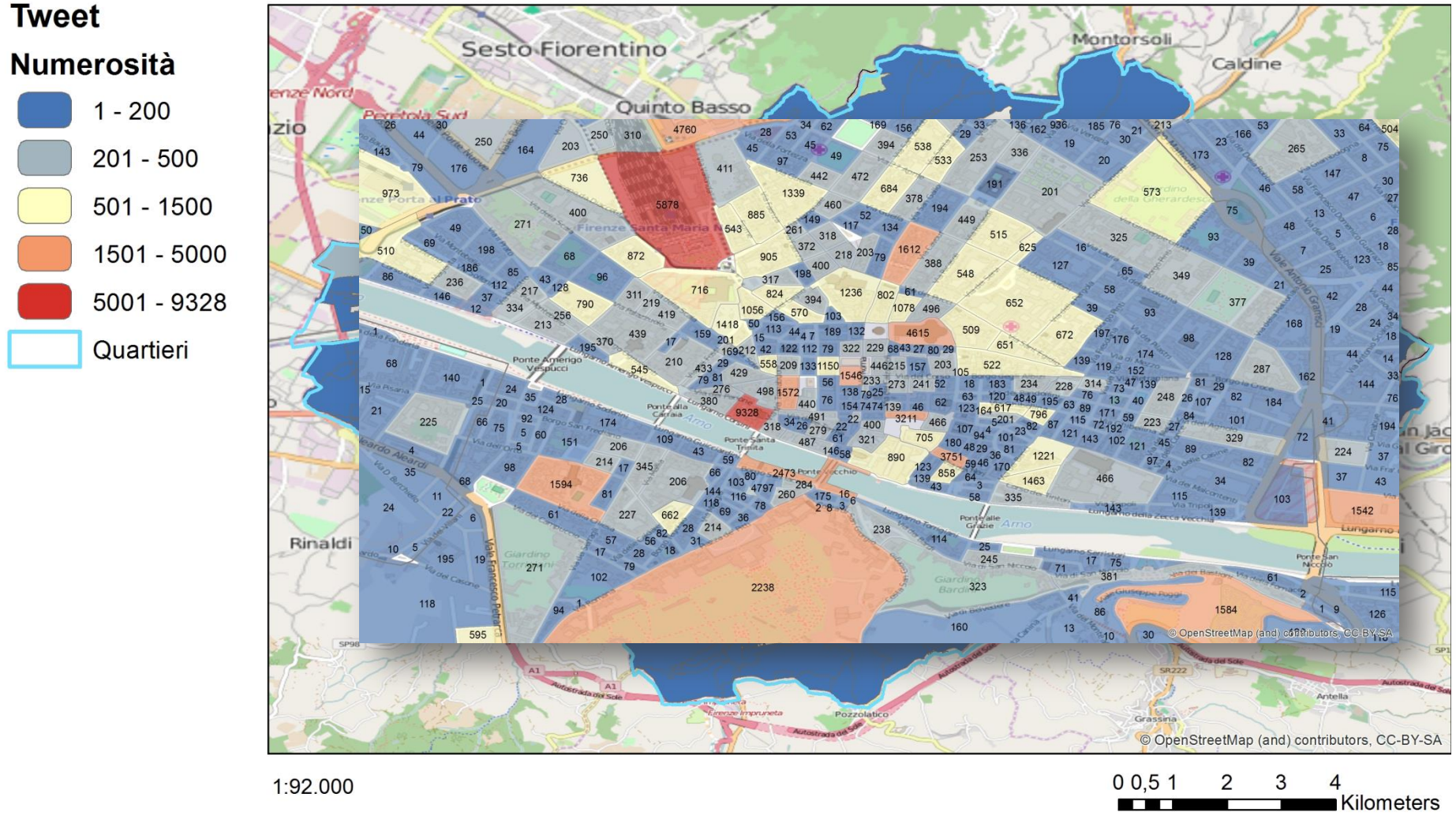
300.000 TWEET IN UN ANNO



TWITTER

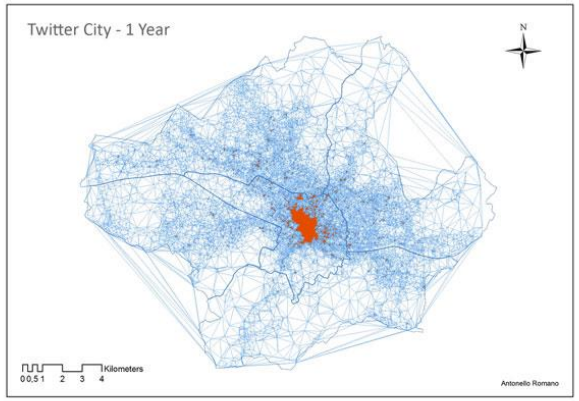
❑ Location

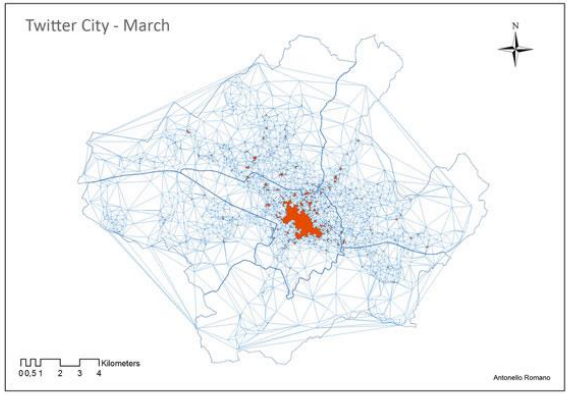
300.000 TWEET IN UN ANNO

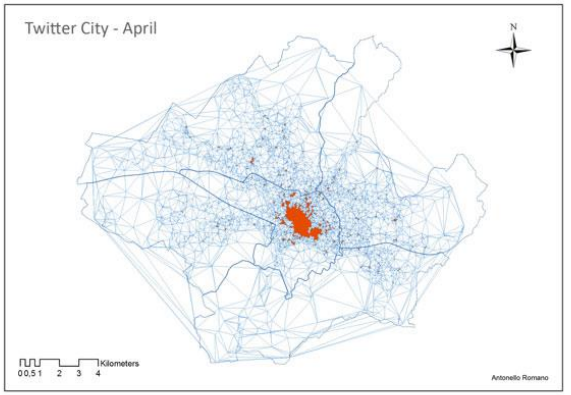


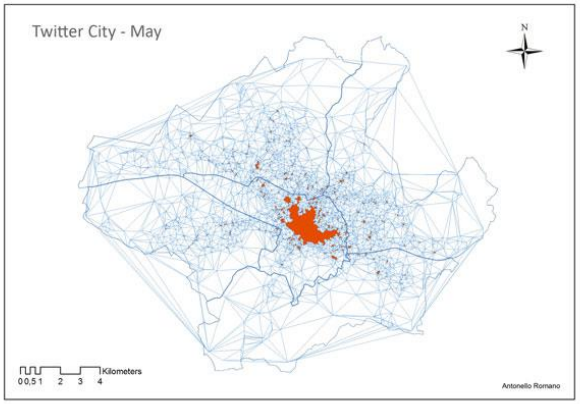
TWITTER

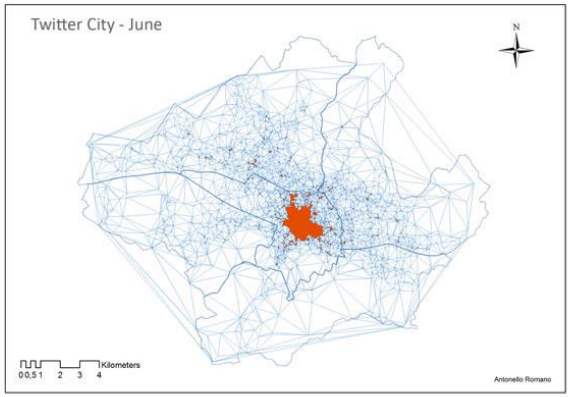
- Location
- Local?

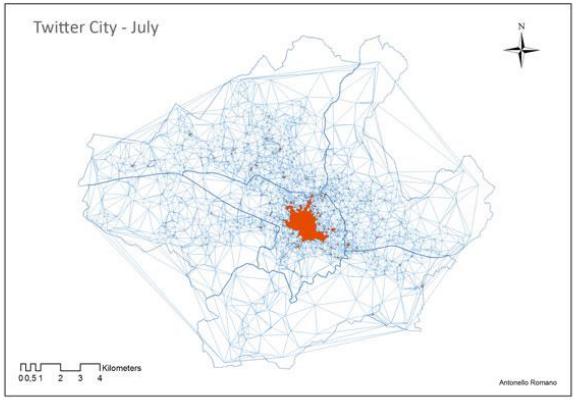












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Twitter City - *Florence*

TWITTER

- ❑ Location
- ❑ Sense of Place (text, folksonomy)

Tweeting in Firenze

1 anno di tweet in città

Lorem Ipsum lorem ipsum lorem ipsum

The World according to Flickr

Mapping 7.5 Millions Photo

Antonello Romano

FLICKR

- Location
- Sense of Place
  (tags, Folksonomy)

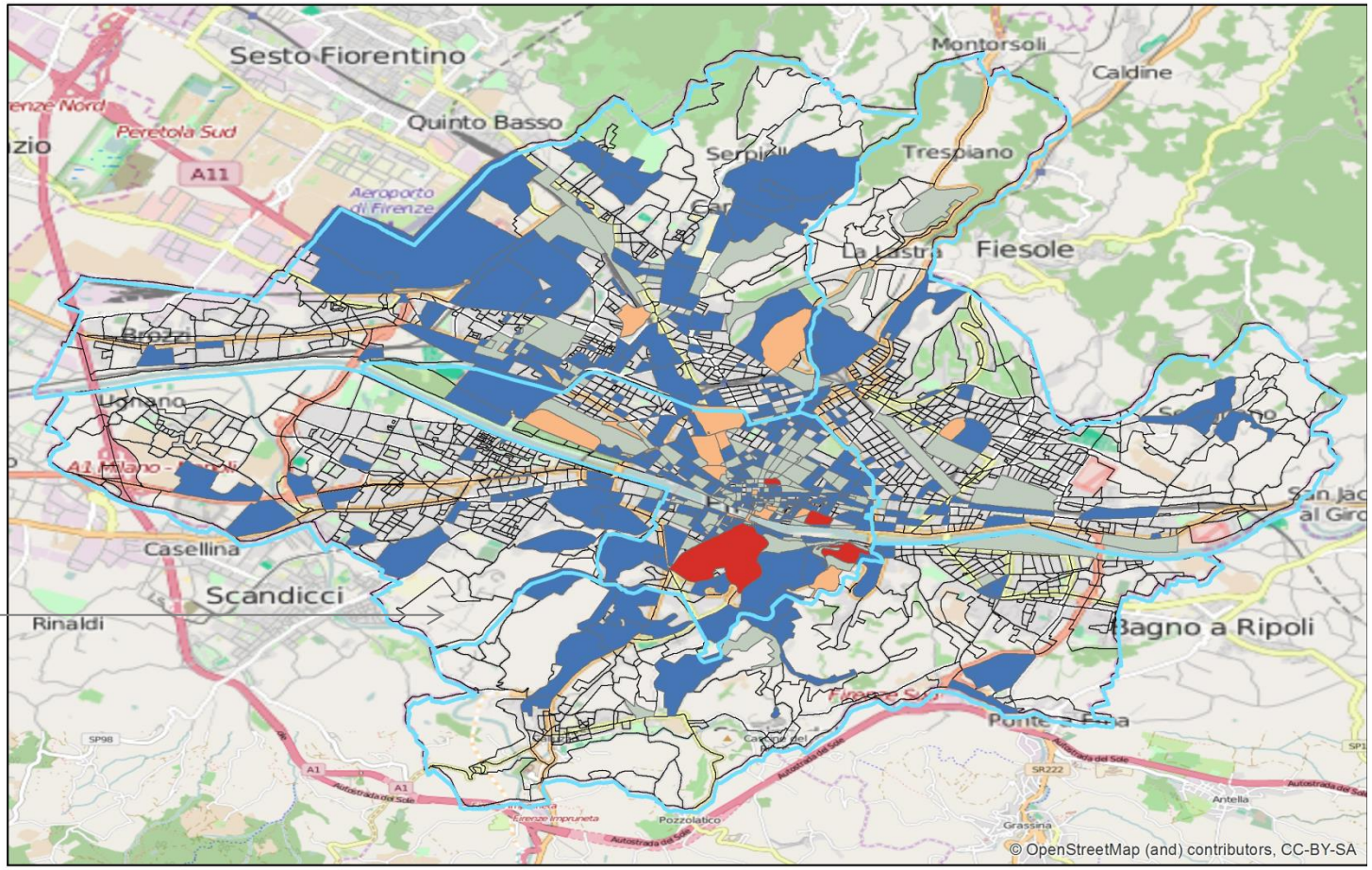
122.271 Flick foto

Flickr

Numerosità Foto

- 0 - 10
- 11 - 100
- 101 - 500
- 501 - 1000
- Quartieri

No data



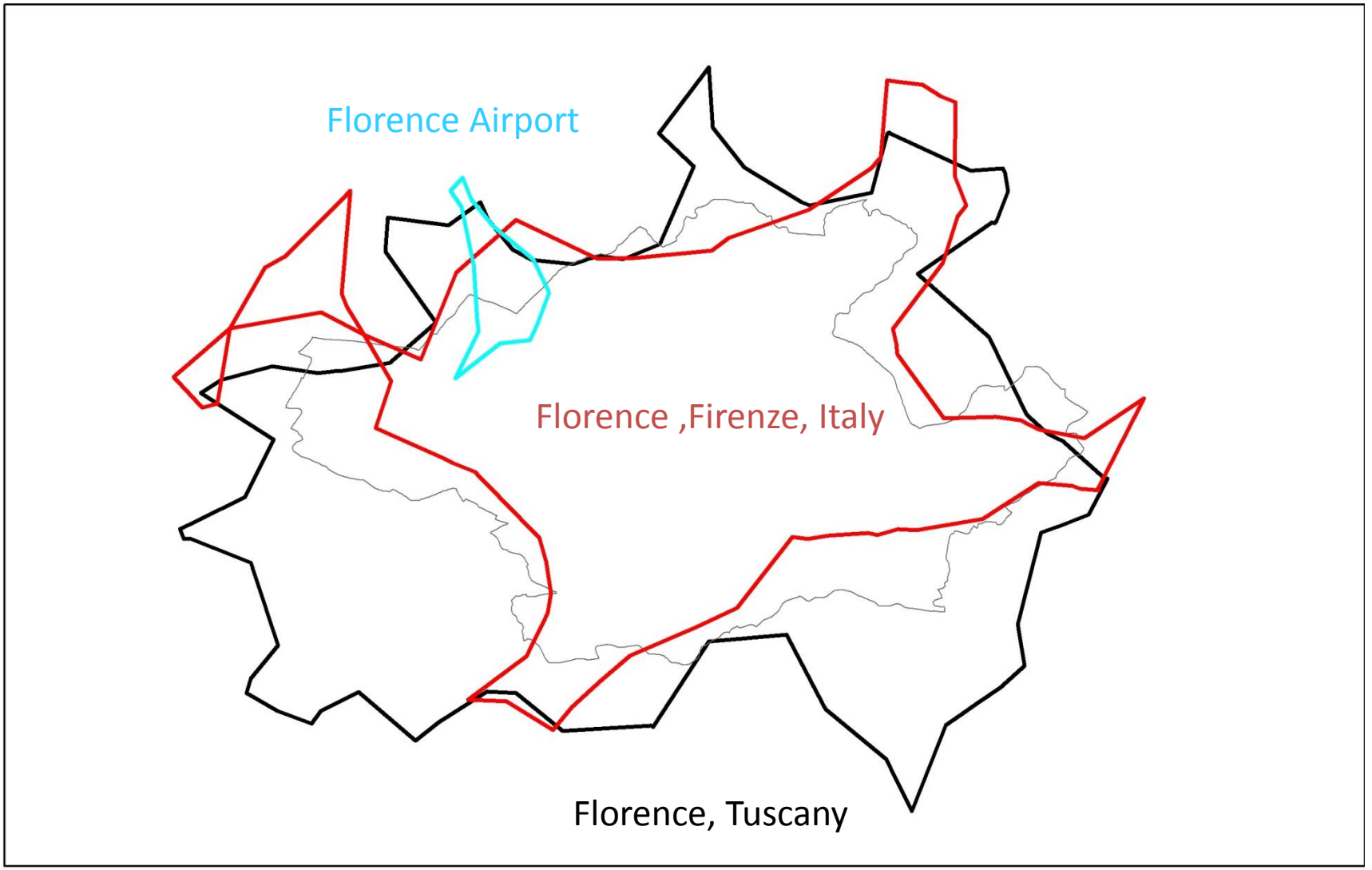
1:92.000

0 0,5 1 2 3 4 Kilometers

FLICKR

- ❑ Location
- ❑ Local?
- ❑ Sense of Place?

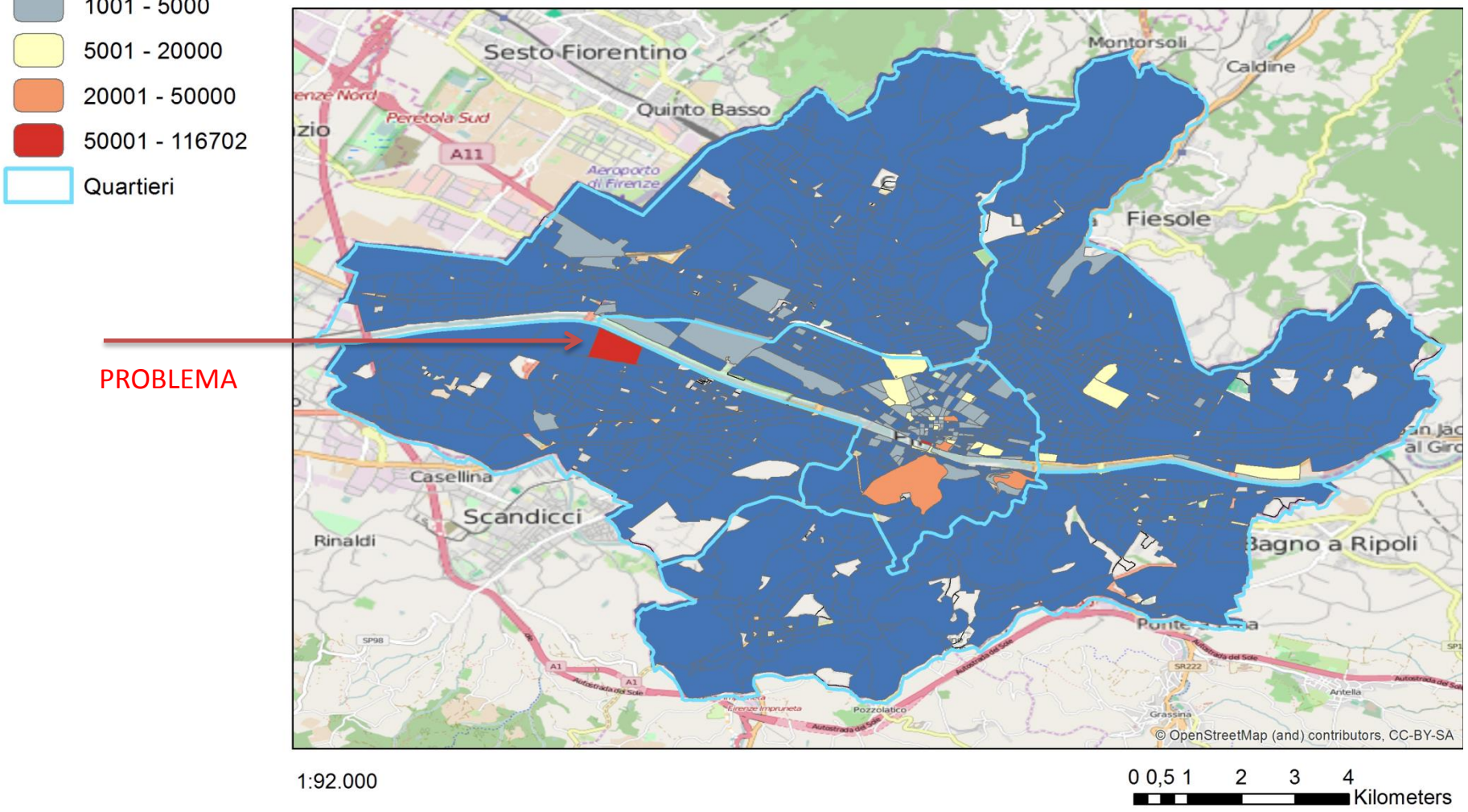
«ShapeTiles»



INSTAGRAM

- Location
- Sense of Place
  (tags, Folksonomy)

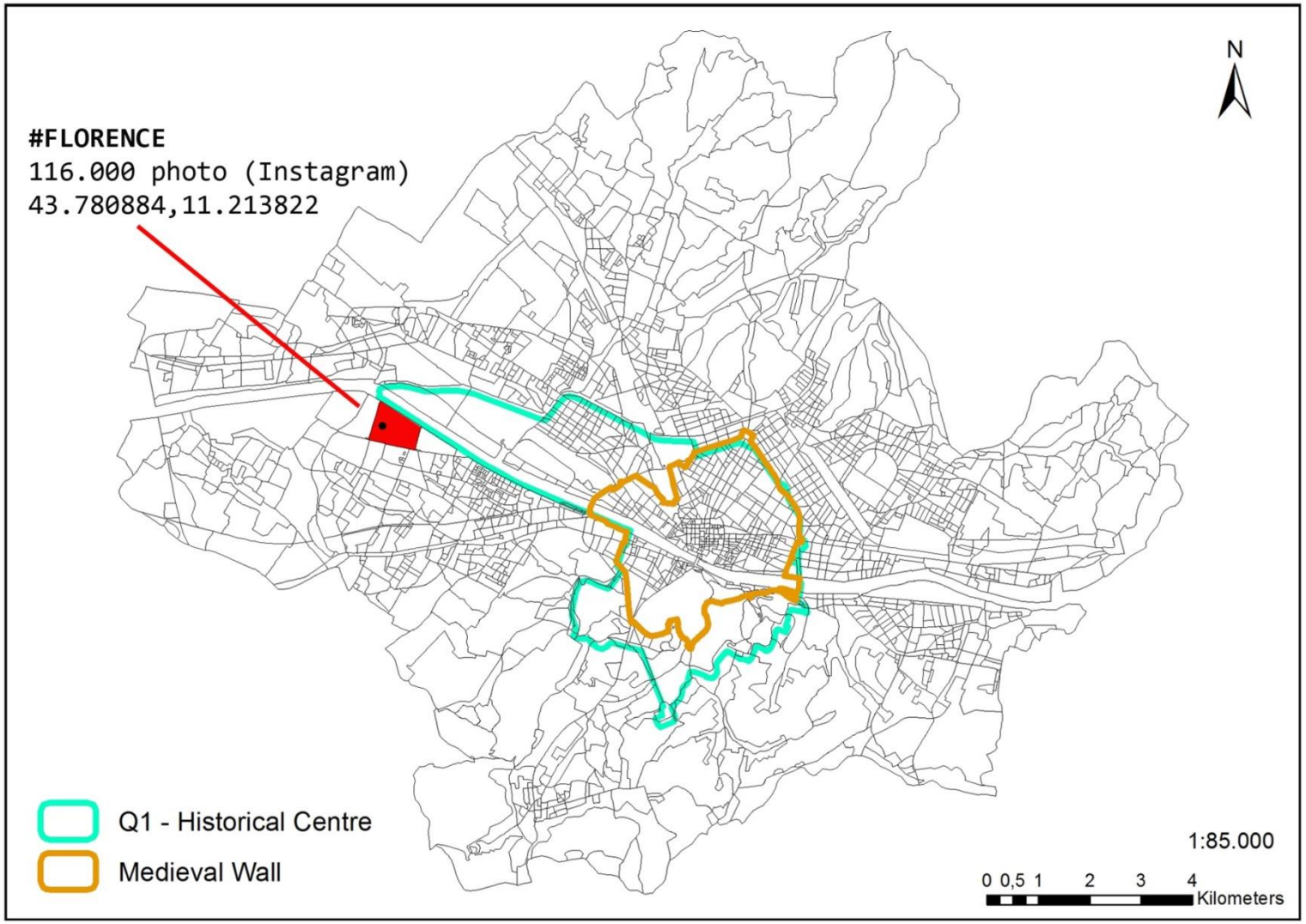
1 Milione di Foto (1 anno)



Data: Università di Cagliari

DATA VALIDATION

The quality of Geographic Information is measured as the difference between the data and the world they represent and becomes poorer as the data and corresponding reality diverge (Maué and Schade, 2008).

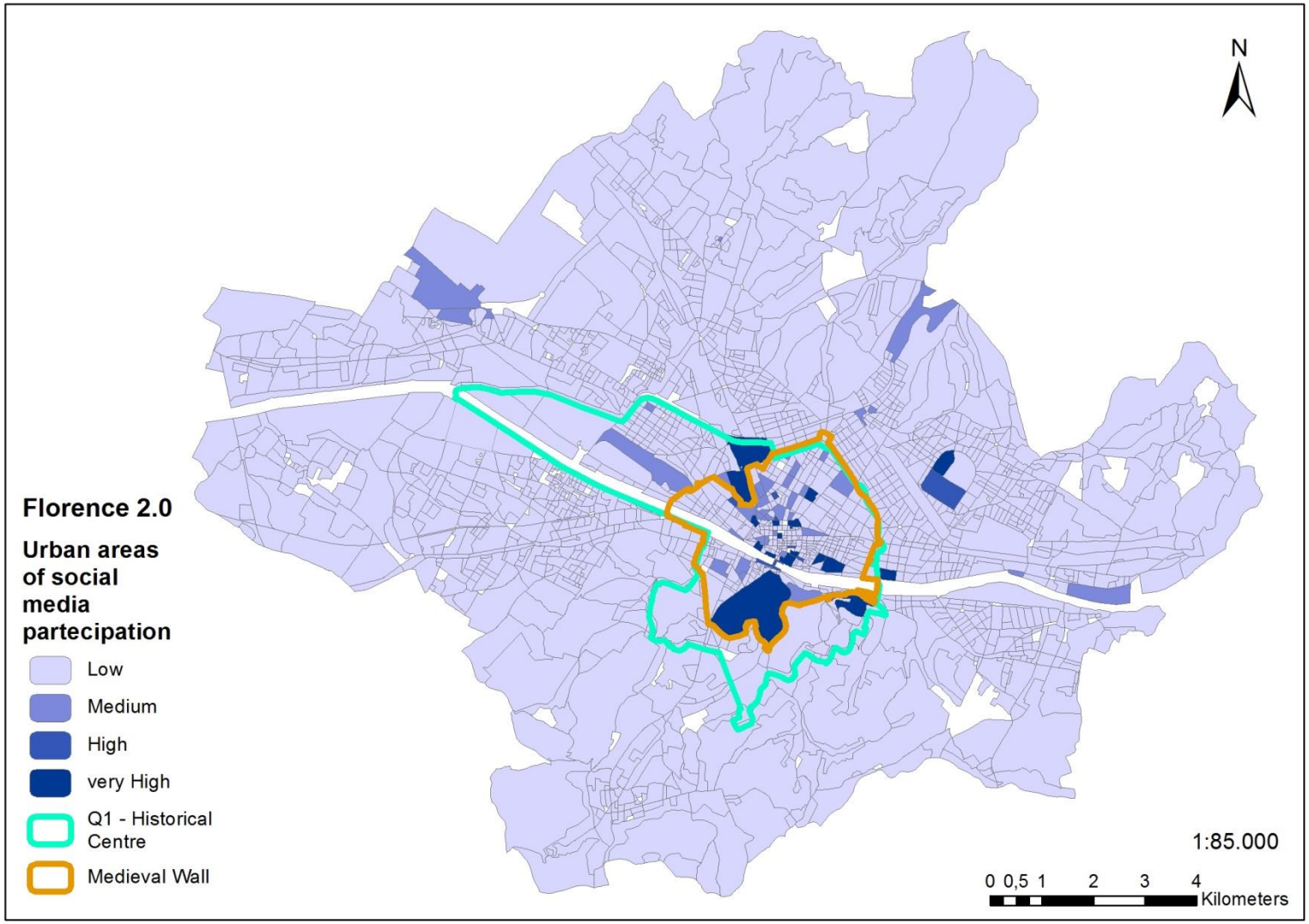


THE GEOSOCIAL TOWN

USER GENERATED DATA COMMONS?

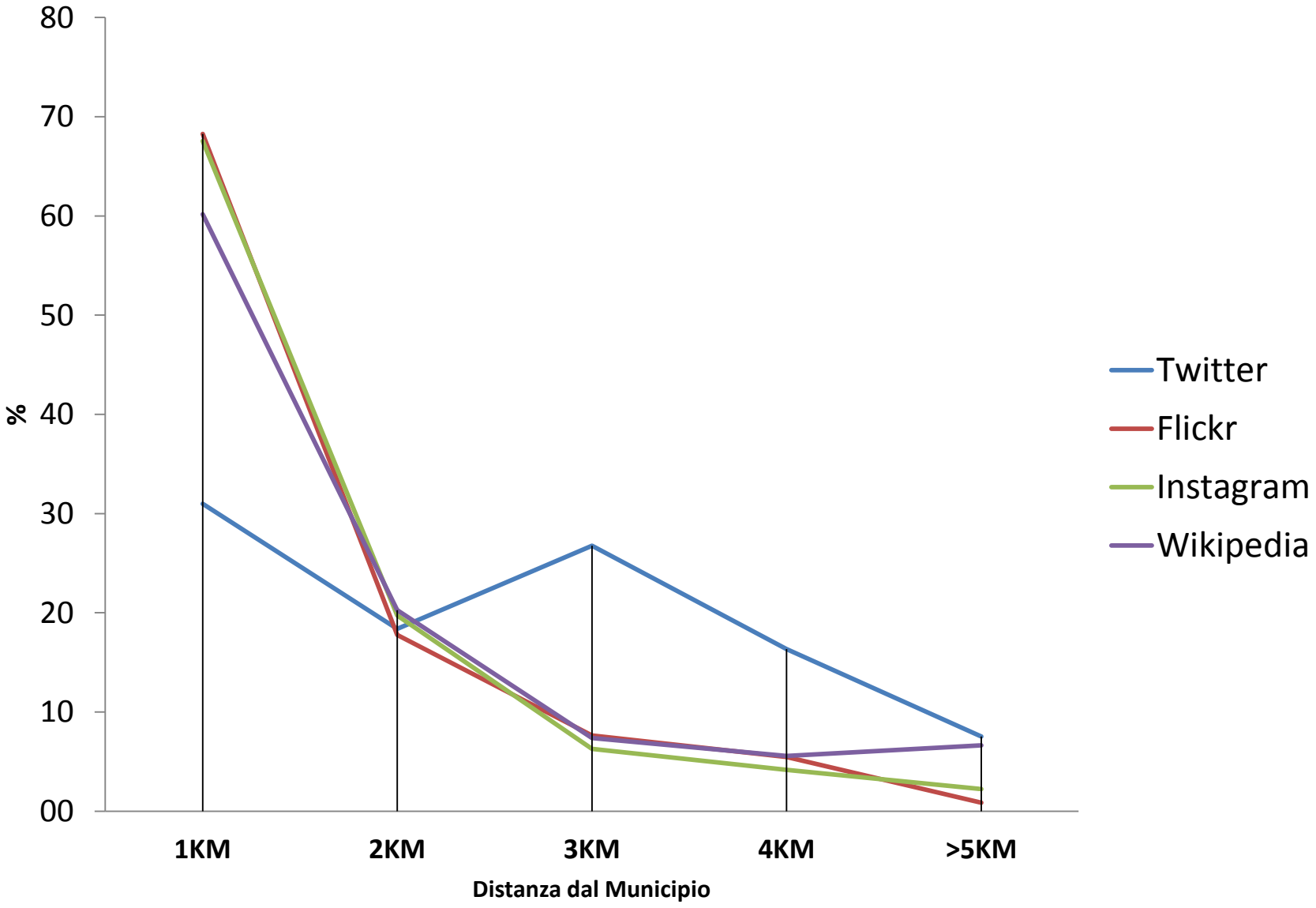
Tweet + Instagram + Flickr + Wikipedia

67.000 GeoSocial data per km2



DISTANCE DECAY

70% in centro storico



- ✓ *The internet is characterised by complex spatialities which are challenging to understand and study, but that doesn't give us an excuse to fall back on unhelpful metaphors which ignore the internet's very real, very material, and very grounded geographies. (M.Graham).*

- ✓ **The experiment has tried to highlight multiple layers of digital geographic information strongly linked to the urban physical spaces that can contribute to the interpretation of the urban environment and its dynamics, and in an innovative way, the definition of urban centralities defined by social participation.**

DIGIPLACE

digital data and physical places (Zook,Graham, 2007)

CONCLUSIONI

- Presupposto: Open Geodata → Dataset più scaricati > Necessitano più apertura/usabilità (Global OpenData INDEX)

- LIMITI 'TECNICI' GEOPORTALE → **SHAPEFILE; ELABORARE XML/KML.**
- LIMITI 'TECNICI' SOCIAL MEDIA → **API (Application Program Interface)**

- **La componente location/sense of place è presente negli UGC → Spatial Big Data**
- **Volume, Varietà, Velocità**
- **E' necessario validare e filtrare i dati**
- **Veradicità**
- **Livello 'UGC' può contribuire (arricchire) ad una nuova rappresentazione urbana**
- **DATA DRIVEN SCIENCE**
- **E' fondamentale interrogarsi sui vantaggi e sulle potenzialità dei dati social circa il buon governo del territorio.**