Locational or Platial Data?
Toward the Characterization of Social Location Sharing

Teriitutea Quesnot and Stéphane Roche

January 5-8, 2015
Grand Hyatt, Kauai

UNIVERSITÉ LAVAL

CRG Centre de recherche en géomatique

Social Location Sharing

- Switch from a purpose-driven (e.g. GPS car navigation systems) to a social-driven sharing of location information (e.g. Facebook check-ins) [Tang et al., 2010];
- SLS is generally associated with the system of check-ins ;
- People share their location information for 5 main reasons [Cramer et al., 2011, Lindqvist et al., Tang et al., 2010]: discovering new places, having fun, meeting people, tracking places, and enhancing self-representation;
- Actually, SLS is closely linked to Place-based (platial) concepts (e.g. spatial value, spatial identity, etc.).

What kind of data are SLS?

- Geolocated data? Socio-spatial data? Geosocial data?
- Are SLS geographic data or metadata?
- Inside the sphere of Volunteered Geographic Information [Goodchild, 2007];
- But, we do not know to which data category SLS belong and do not belong
- A VGI data classification is necessary…

Why classifying VGI data?

- Does a tweet geolocated at the Eiffel Tower have necessarily the same meaning as a Facebook check-in published from this place?
- Working with VGI data is subject to misunderstanding because the spatial information shared through social media is not contextualized;
- The spatial/geographic dimension of VGI is generally reduced to a pair of lat/long coordinates;
- Not all VGI data are analyzable and interpretable on the same level. That is why a VGI data classification is necessary.

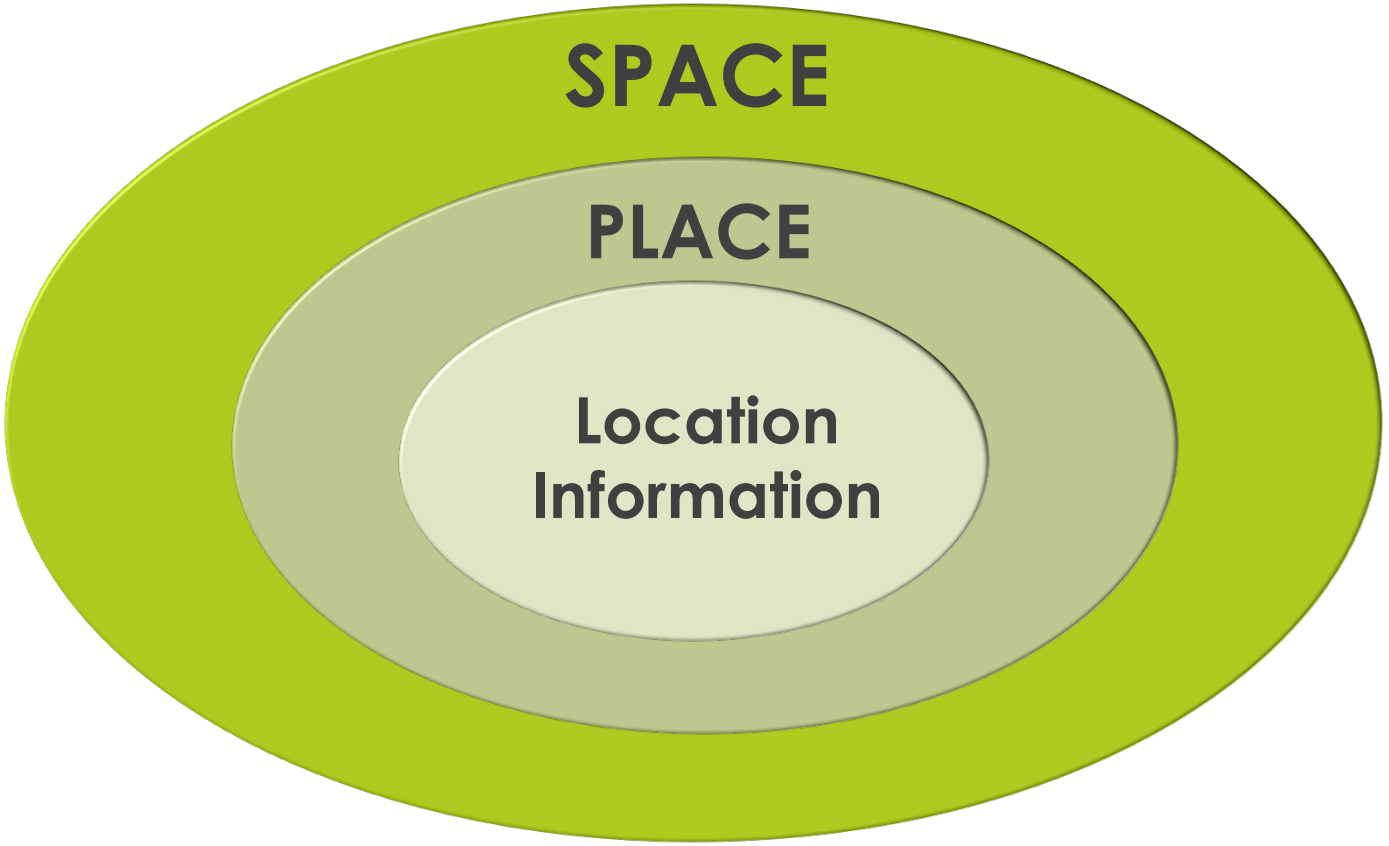
Platial GIS : Space versus Place

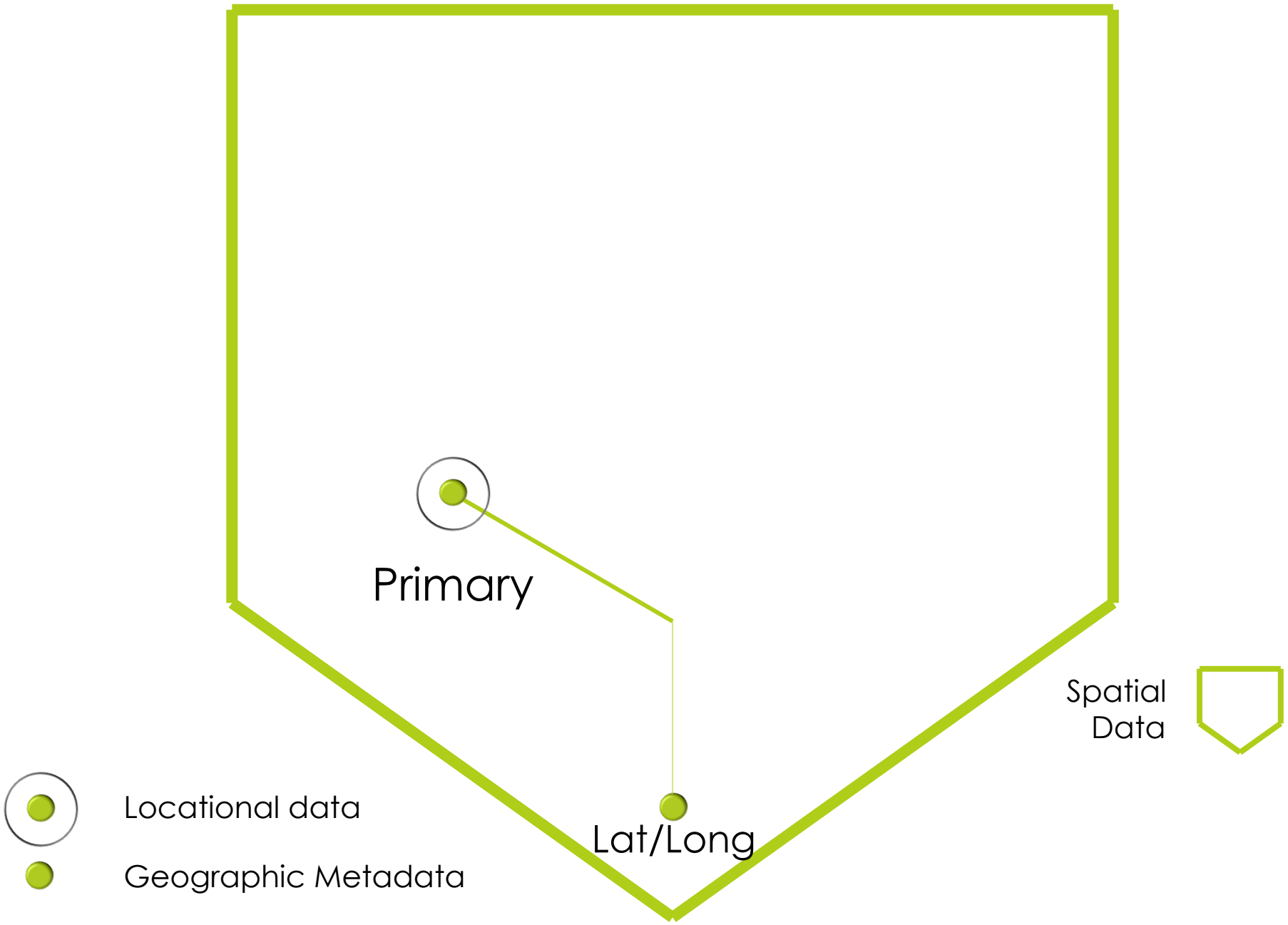
- Elwood et al., 2013

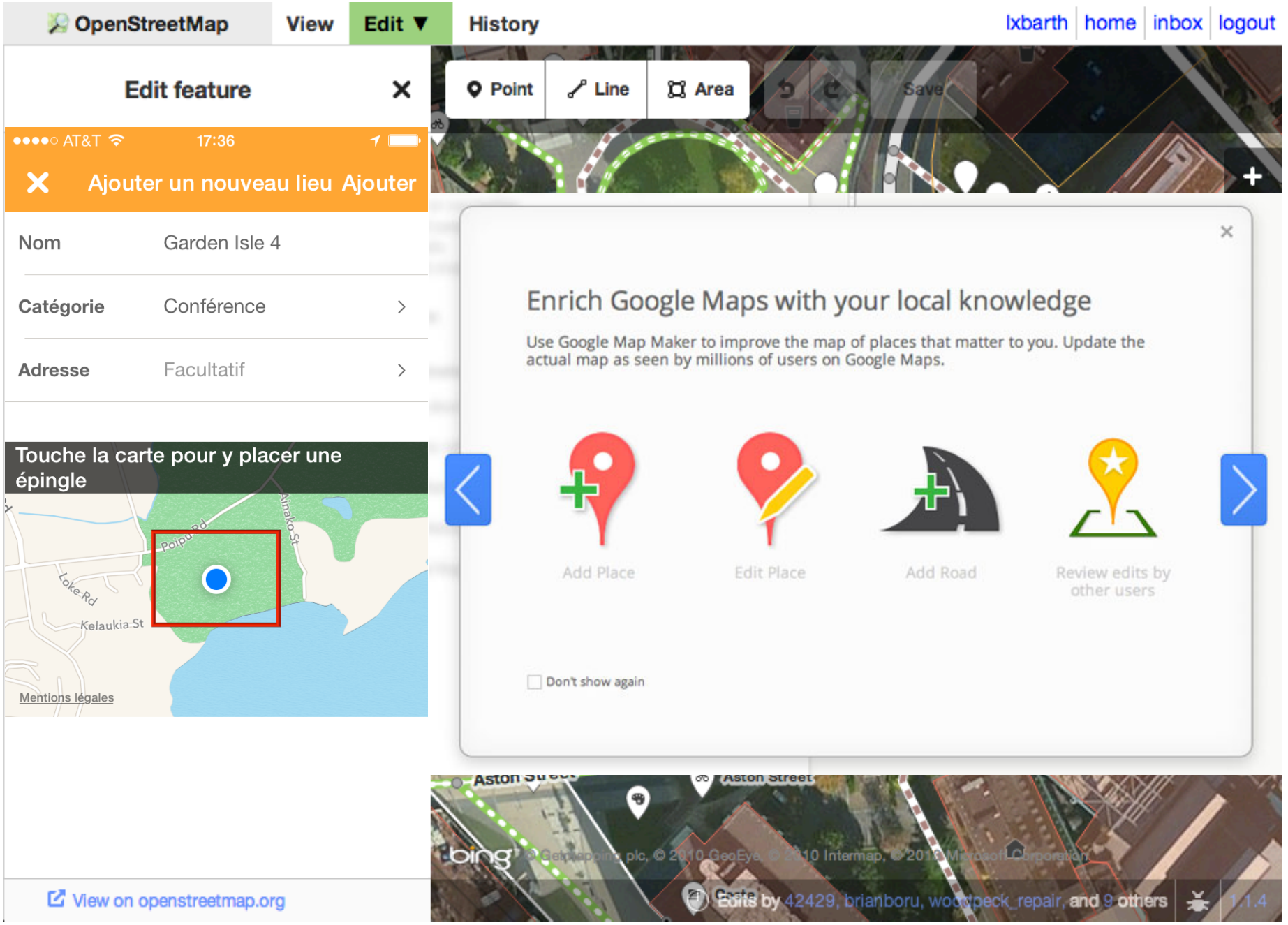
Coordinates	vs.	Names
Layers (GIS)	vs.	Places' hierarchies
GIS Databases	vs.	Gazetters and POIs Databases

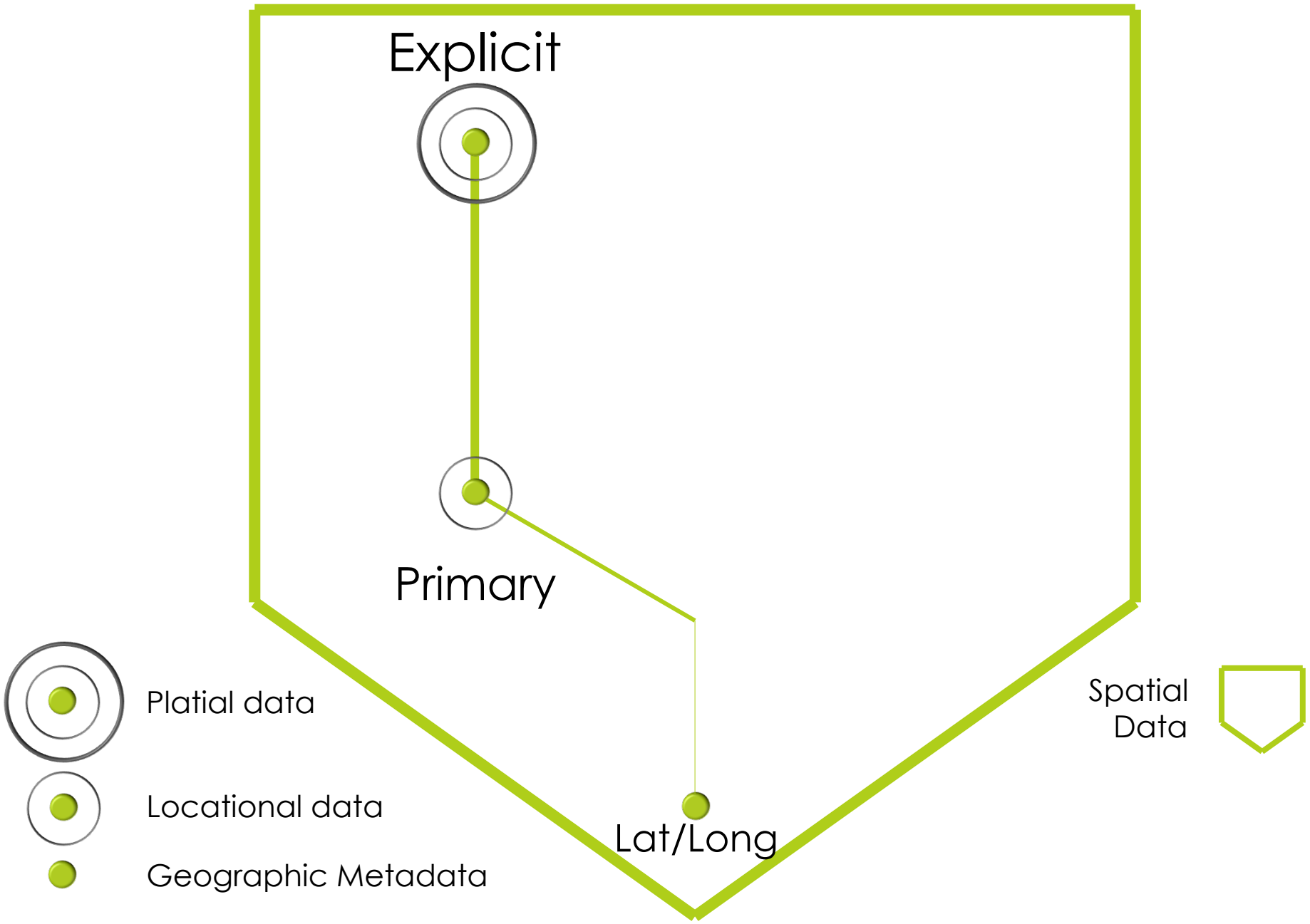
- Horizontal delineation;
- Actually, we do not totally agree with this point of view…

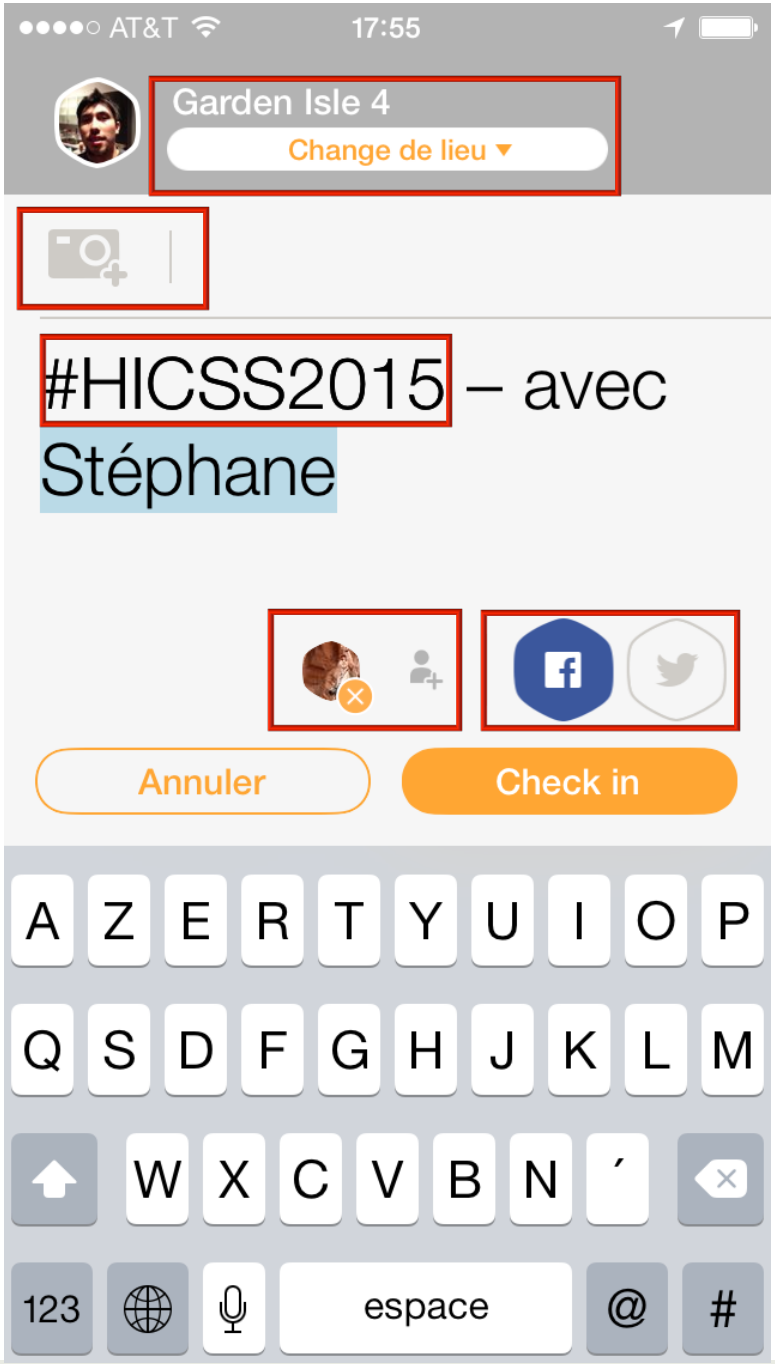
Space as an embracing concept

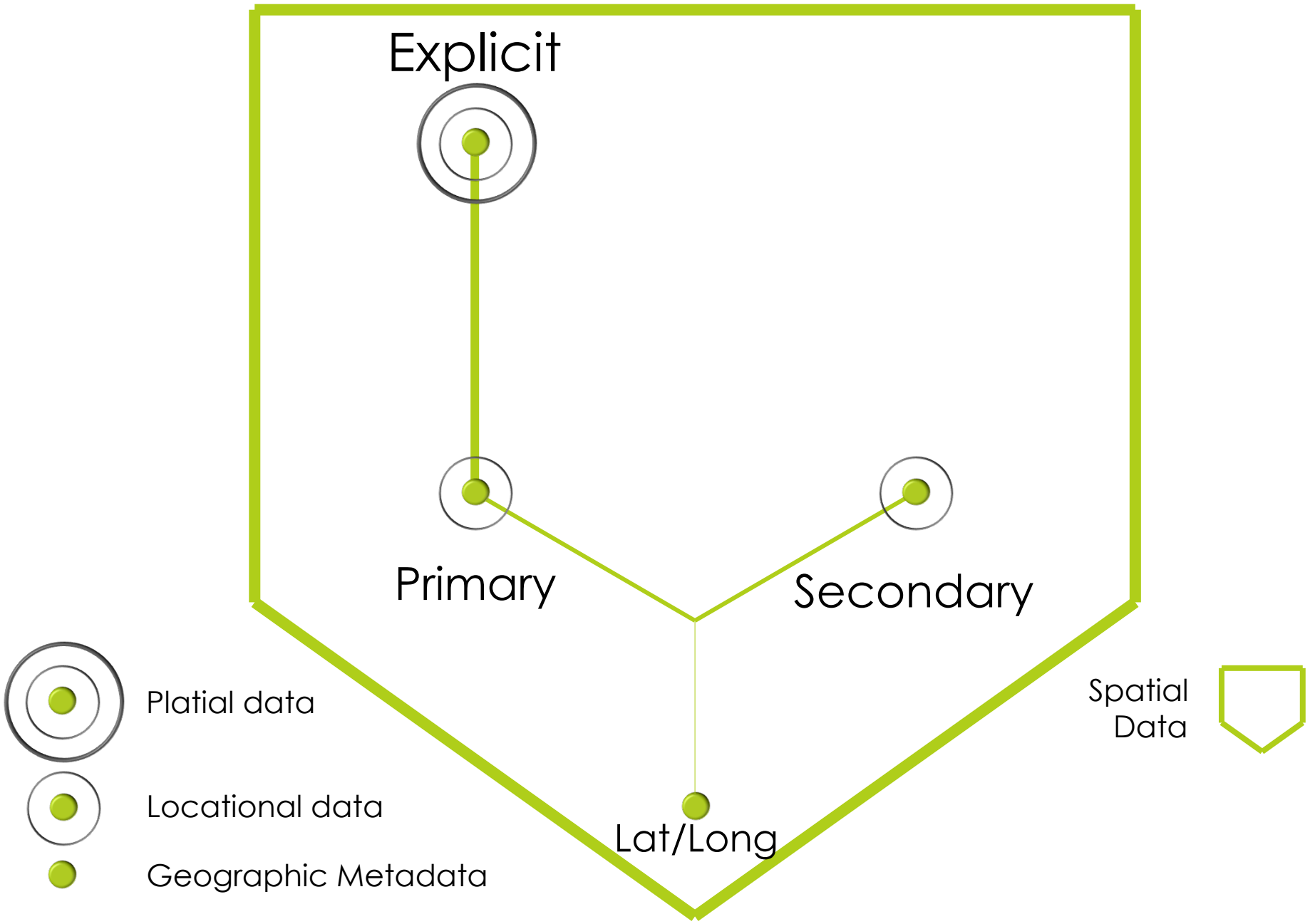


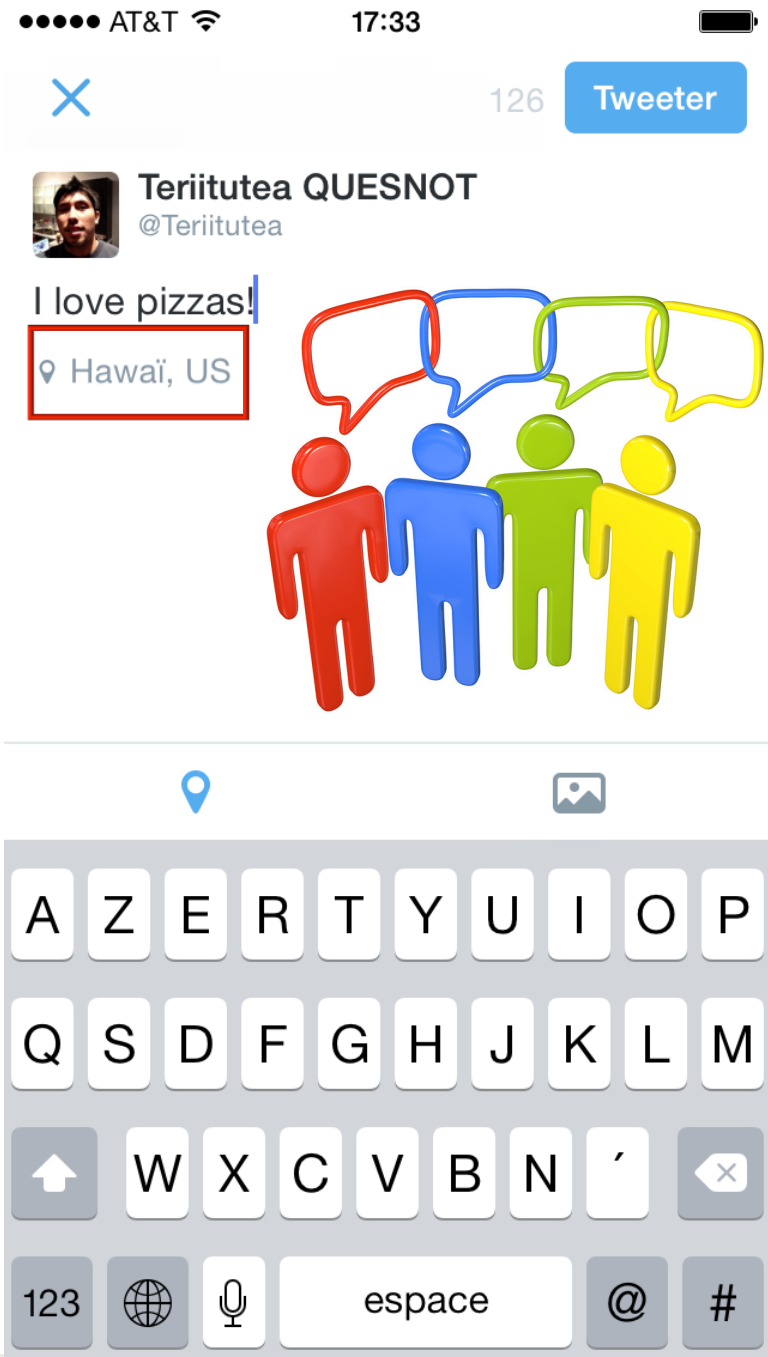

Primary
Lat/Long
Spatial Data
Locational data
Geographic Metadata

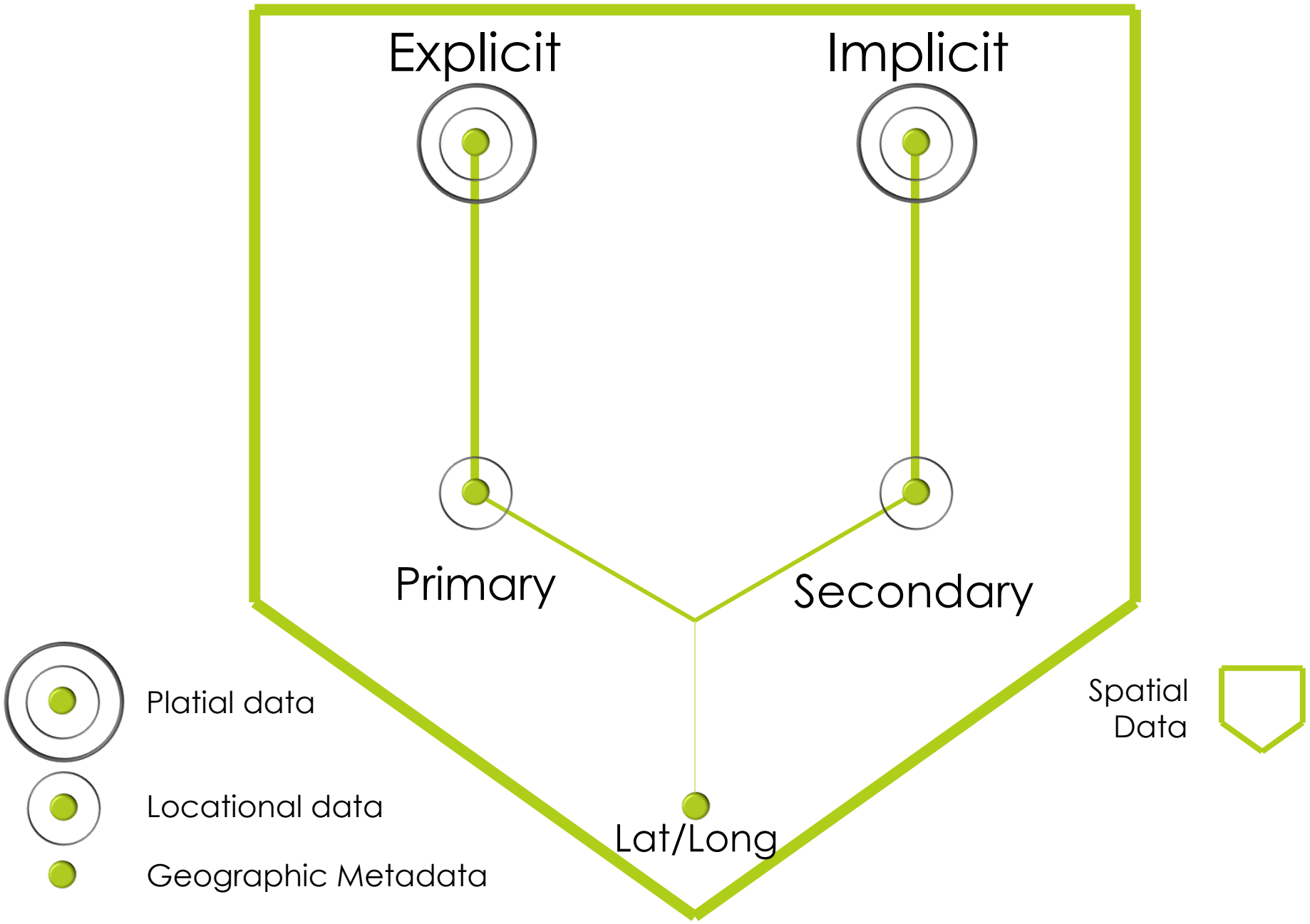

OpenStreetMap
View
Edit ▼
History
lxbarth
home
inbox
logout
Edit feature
Point
Line
Area
Save
AT&T
17:36
Ajouter un nouveau lieu
Ajouter
Nom
Garden Isle 4
Catégorie
Conférence
Adresse
Facultatif
Touche la carte pour y placer une épingle
Poipu Rd
Ainako St
Loke Rd
Kelaukia St
Mentions légales
Enrich Google Maps with your local knowledge
Use Google Map Maker to improve the map of places that matter to you. Update the actual map as seen by millions of users on Google Maps.
Add Place
Edit Place
Add Road
Review edits by other users
Don't show again
Aston Street
bing
Edits by 42429, brianboru, woodpeck_repair, and 9 others
1.1.4
View on openstreetmap.org

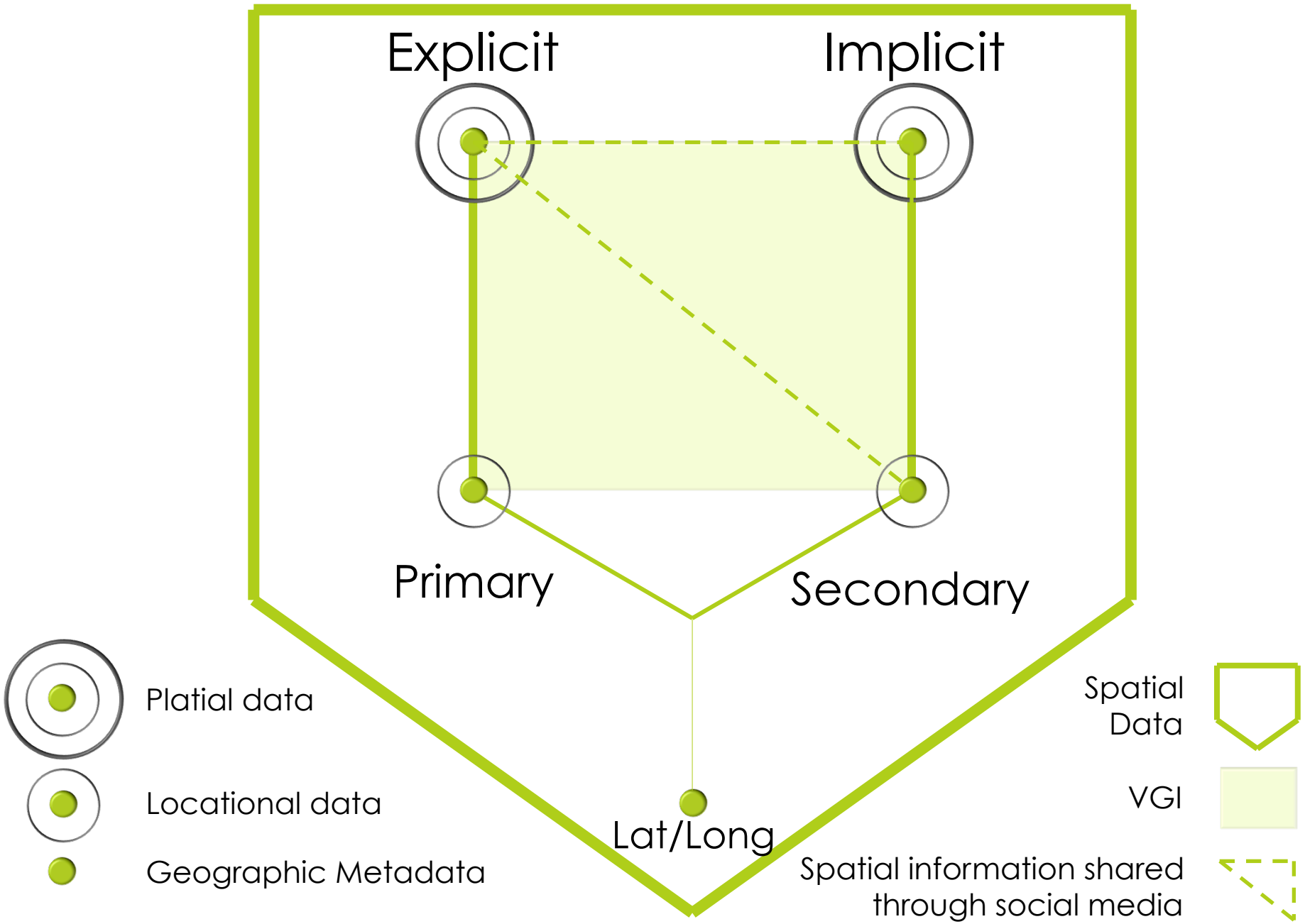

Explicit
Primary
Lat/Long
Platial data
Locational data
Geographic Metadata
Spatial Data


AT&T
17:55
Garden Isle 4
Change de lieu
#HICSS2015 – avec Stéphane
Annuler
Check in
A Z E R T Y U I O P
Q S D F G H J K L M
W X C V B N ´
123
espace
@
#


Explicit
Primary
Secondary
Lat/Long
Platial data
Locational data
Geographic Metadata
Spatial Data


AT&T
17:33
126
Tweeter
Teriitutea QUESNOT
@Teriitutea
I love pizzas!
Hawaï, US
A Z E R T Y U I O P
Q S D F G H J K L M
W X C V B N ´
123
espace
@
#


Explicit
Implicit
Primary
Secondary
Lat/Long
Platial data
Locational data
Geographic Metadata
Spatial Data


Explicit
Implicit
Primary
Secondary
Lat/Long
Platial data
Locational data
Geographic Metadata
Spatial Data
VGI
Spatial information shared through social media

Conclusion

- Our data classification is proposed in order to reduce the vagueness nature of VGI and avoid irrelevant conclusions and analysis (e.g. mashup of different kind of VGI data);
- VGI and SLS are generally associated with Locational Data;
- Locational and Platial data must not be confused;
- Some VGI data can be exploited with a classic GIS/ spatial analysis while another large part cannot/should not (especially Implicit Platial Data).

Thank you

REFERENCES

Cramer, H., Rost, M., & Holmquist, L. E. (2011). *Performing a Check-in: Emerging Practices, Norms and 'Conflicts' in Location-Sharing Using Foursquare*. Paper presented at the MobileHCI 2011, Stockholm, Sweden. Are SLS geographic data or metadata?

Elwood, S., Goodchild, M. F., & Sui, D. S. (2013). Prospects for VGI research and the emerging fourth paradigm. In D. S. Sui, S. Elwood & M. F. Goodchild (Eds.), *Crowdsourcing Geographic Knowledge* (pp. 361-375): Springer Netherlands.

Goodchild, M. F. (2007). Citizens as sensors: the world of volunteered geography. *GeoJournal, 69*(4), 211-221.

Lindqvist, J., Cranshaw, J., Wiese, J., Hong, J.I, & Zimmerman, J. (2011). *I'm the Mayor of My House: Examining Why People Use foursquare - a Social-Driven Location Sharing Application.* Paper presented at the Proceedings of the Conference on Human Factors in Computing Systems (CHI-11), Vancouver, BC, Canada.

Tang, K. P., Lin, J., Hong, J. I., Siewiorek, D. P., & Sadeh, N. (2010). *Rethinking Location Sharing : Exploring the Implications of Social-Driven vs. Purpose-Driven Location Sharing* Paper presented at the UbiComp 2010, Copenhagen, Denmark.