

Practices Technology Spaces

gaming
reading
traveling
wayfinding
socializing

mobile
networks
interfaces
sensors
internet

city
airplane
workplace
home
kitchen

Data

desk research
observations
quantitative
ethno-mining



Insights

consolidate results
prototype
experts
workshops



Solutions

Design brief
Specifications
Concepts
Roadmap



Lift community of 6000+ experts and lead users

Cities

Networks

Frictions

Based on our experience

Knowledge about frictions is a powerful,
relevant and original resource to
innovate in the networked cities.

friction |'frik sh ən |

noun

the **resistance** that one surface or object encounters when moving over another.



Phones aren't perfect

Challenge for the entire industry



Lubrication: change practices



Bluetooth

Wi-Fi

GPS



UMTS

GSM

Lubrication: patch

Get an iPhone 4 Bumper or case at no charge.

Follow these steps to apply for a Bumper or case.

1. Download the iPhone 4 Case Program app from the App Store.
2. Launch the app on your iPhone 4 and sign in using your iTunes Store account or Apple ID.
3. Select your Bumper or case.

For iPhone 4 purchases made before July 23, 2010, you must apply no later than August 22, 2010; otherwise, you must apply within 30 days of your iPhone 4 purchase. To qualify for this program, you must purchase your iPhone 4 by September 30, 2010.

[Read terms and conditions](#)



Lubrication: awareness of the seams



Status Bar

Cell Signal

Shows whether you're in range of the cell networks and can make and receive calls. The more bars, the stronger the signal. If there's no signal, the bars are replaced with "No service."

EDGE Network

Shows that your carrier's EDGE network is available, and iPhone can connect to the Internet over EDGE.

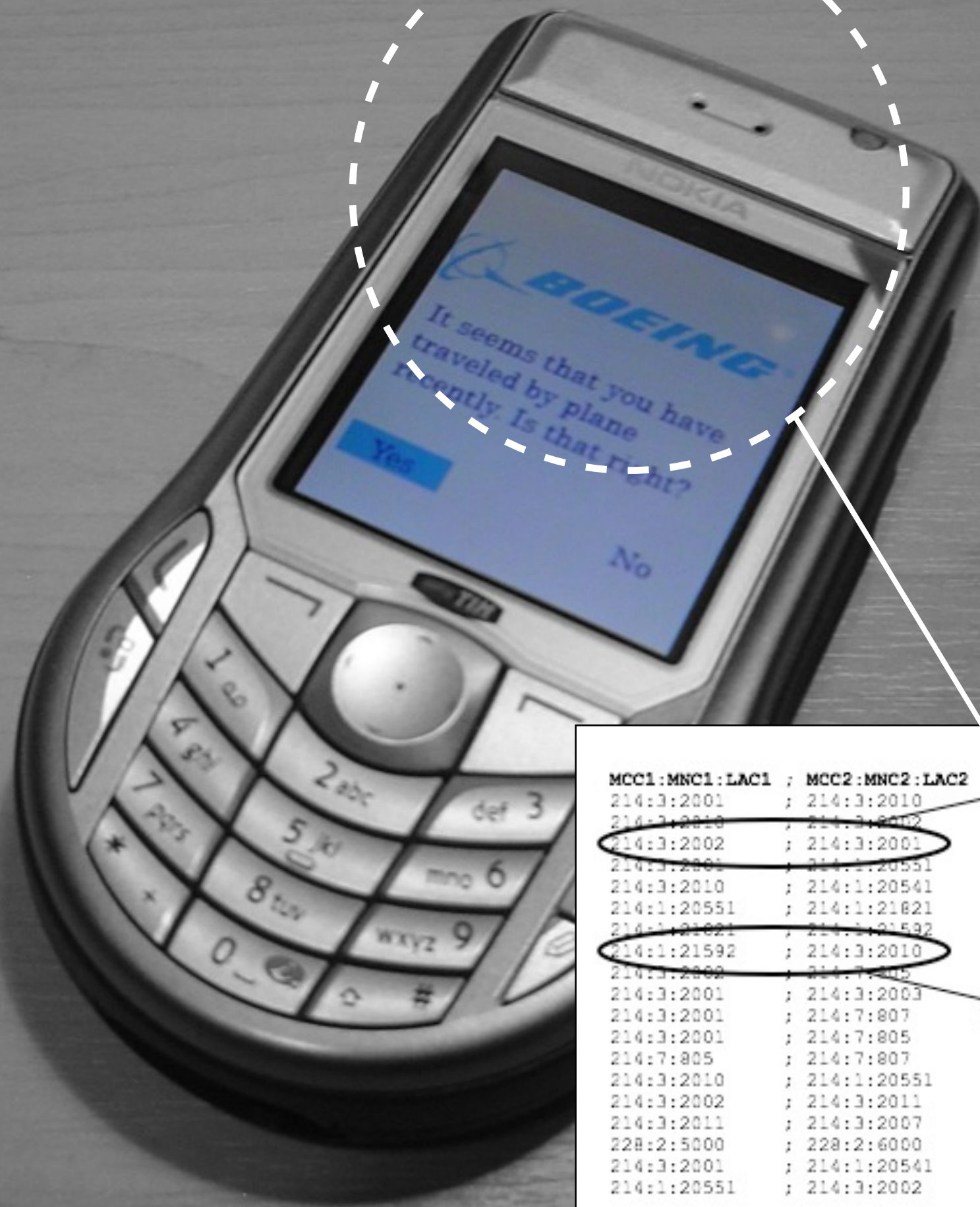
Wi-Fi Signal

Shows that iPhone is connected to the Internet over a Wi-Fi network. The more bars, the stronger the connection.

Lubrication: frictions as part of the solution

In-situ travel survey

- Any country
- Any user
- Anywhere
- Accurately
- Privacy



MCC1:MNC1:LAC1 ; MCC2:MNC2:LAC2

214:3:2001 ; 214:3:2010

214:3:2010 ; 214:3:2002

214:3:2002 ; 214:3:2001

214:3:2001 ; 214:1:20551

214:3:2010 ; 214:1:20541

214:1:20551 ; 214:1:21021

214:1:21021 ; 214:3:21592

214:1:21592 ; 214:3:2010

214:3:2002 ; 214:7:805

214:3:2001 ; 214:3:2003

214:3:2001 ; 214:7:807

214:3:2001 ; 214:7:805

214:7:805 ; 214:7:807

214:3:2010 ; 214:1:20551

214:3:2002 ; 214:3:2011

214:3:2011 ; 214:3:2007

228:2:5000 ; 228:2:6000

214:3:2001 ; 214:1:20541

214:1:20551 ; 214:3:2002

Hop within adjacent LACs

Hop within two mobile operators (MNC)

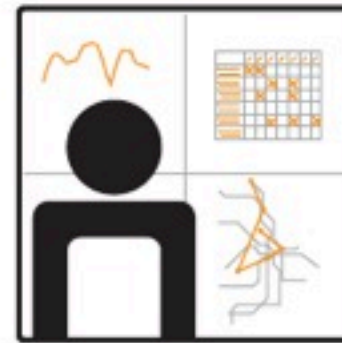
Lubrication: design for appropriation



Foursquare usage and practices



Play



Collect



Recommend



Meet



Observe

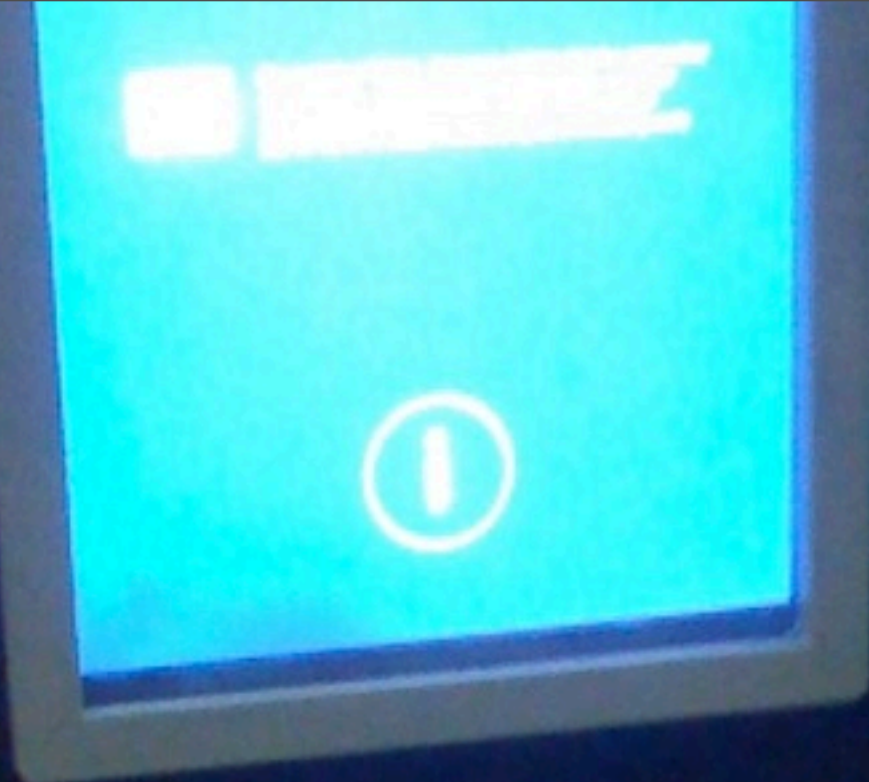
#1: For designers, companies, users of the networked city, the adoption of technological innovation is a domestication process.

friction |'frik sh ən |

noun

the action of one surface or object **rubbing**
against another.





Ajuntament  de Barcelona





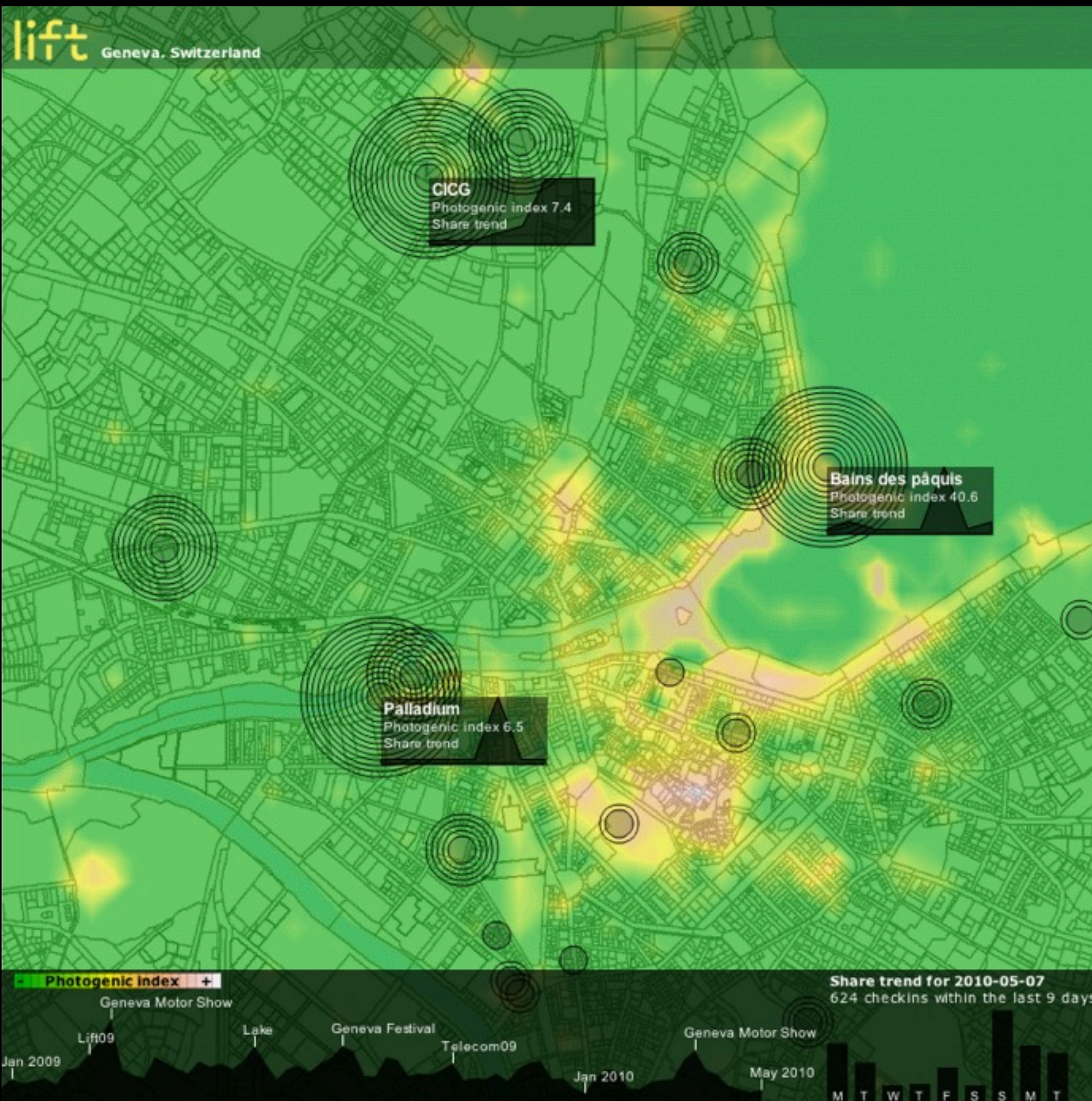


Frictions sparkle data

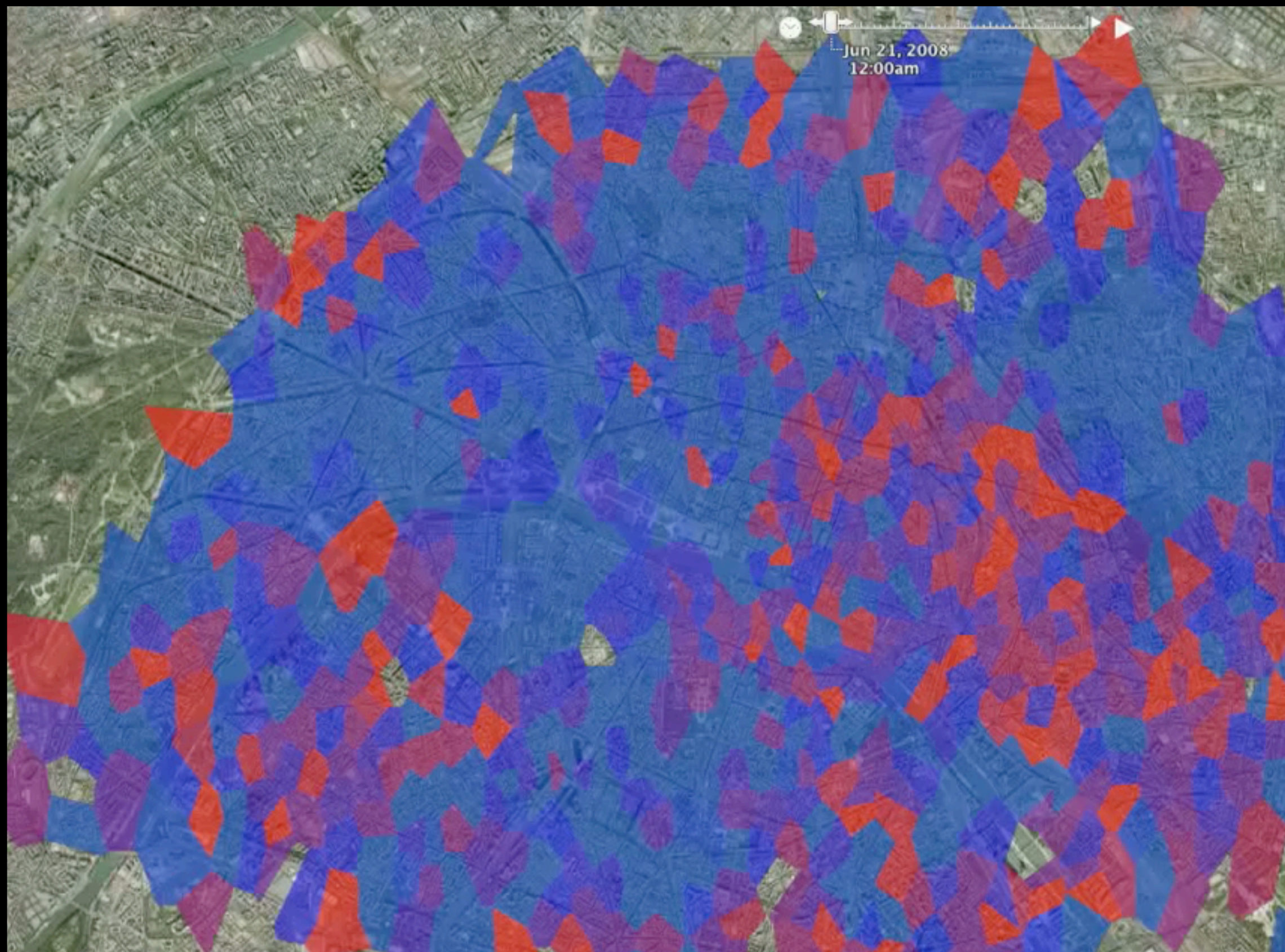




Presence of Flickr photographers in Barcelona 2007. Fabien Girardin

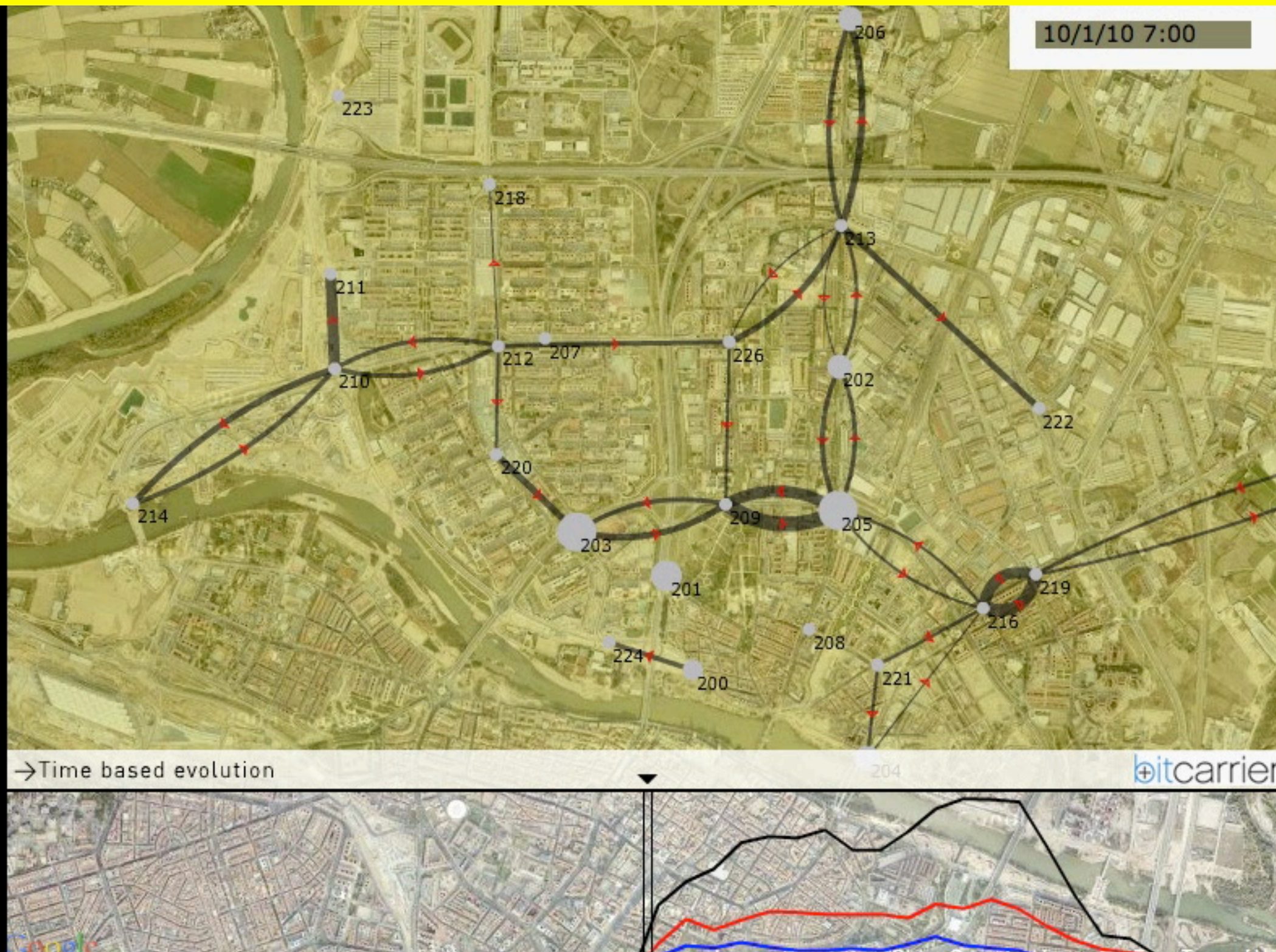


Foursquare check-ins during the Lift'10 Conference in Geneva. Lift Lab



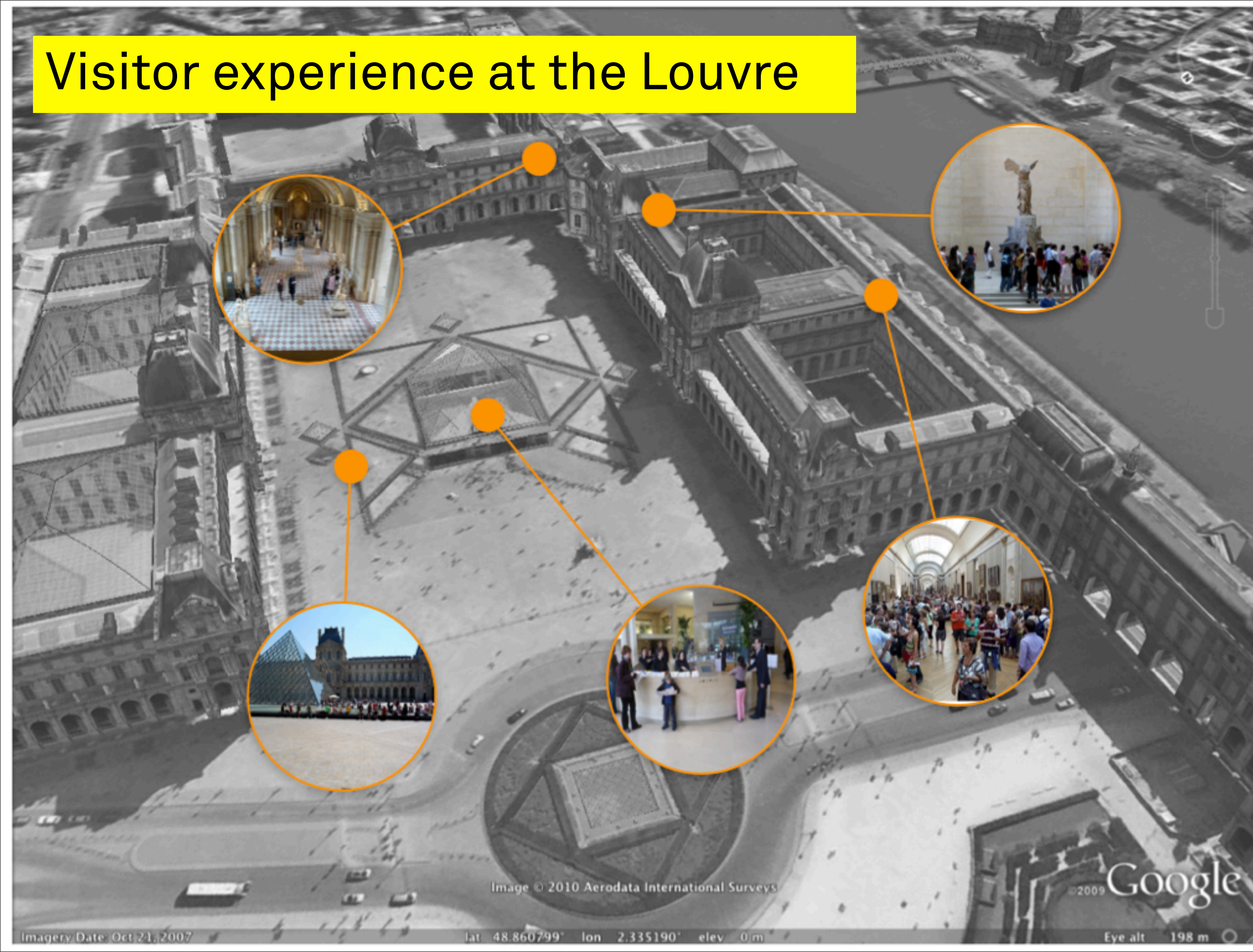
Mapping the Fête de la musique 2008 in Paris from the Velib usage data. Fabien Girardin

Frictions as support for services and planning



Flows of traffic in Zaragoza in from Bluetooth data. BitCarrier, Lift Lab, Bestiario

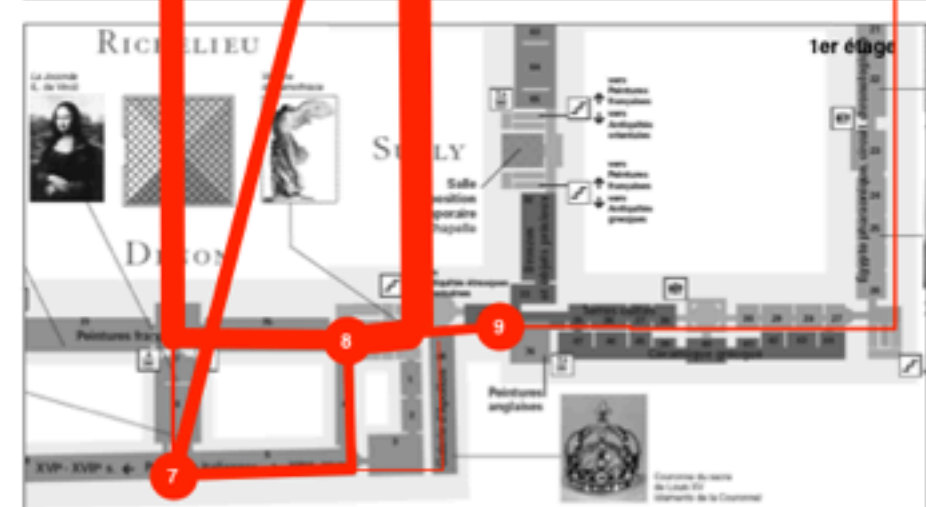
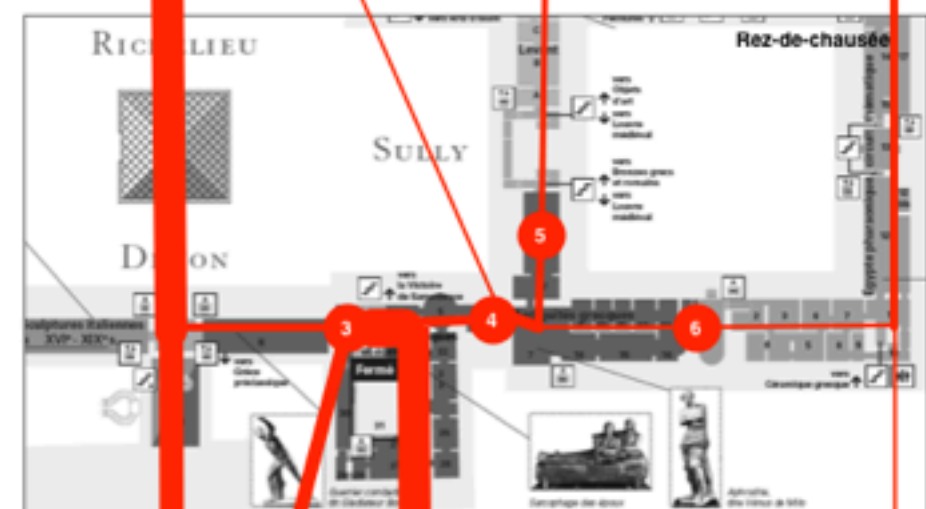
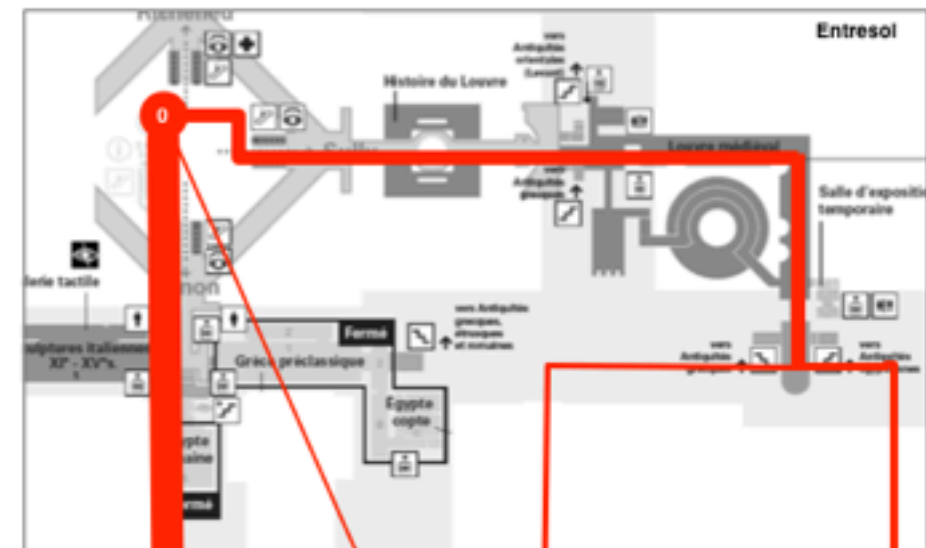
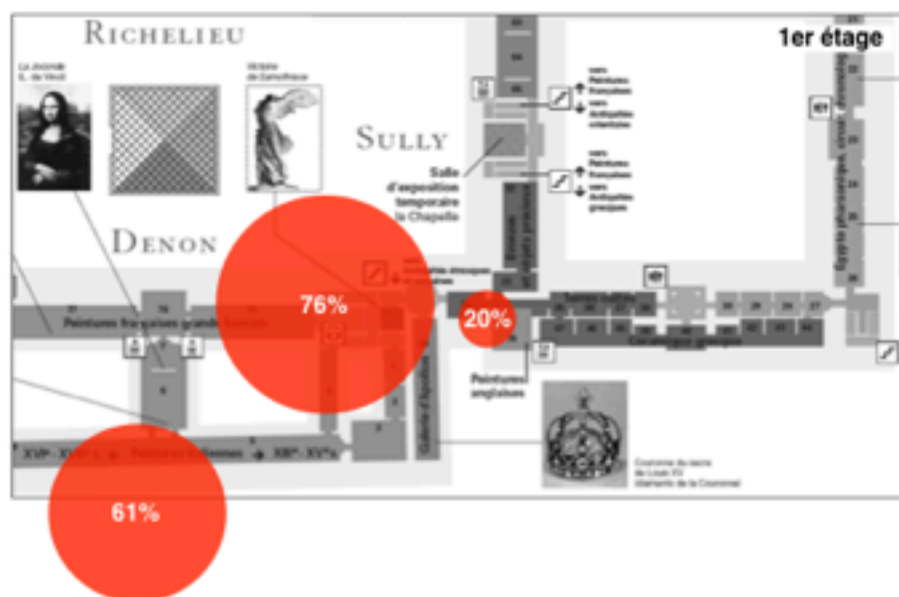
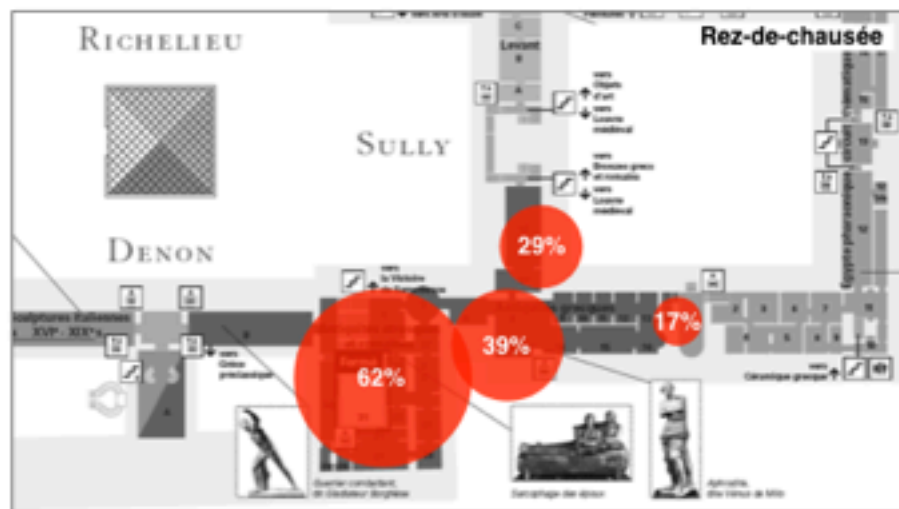
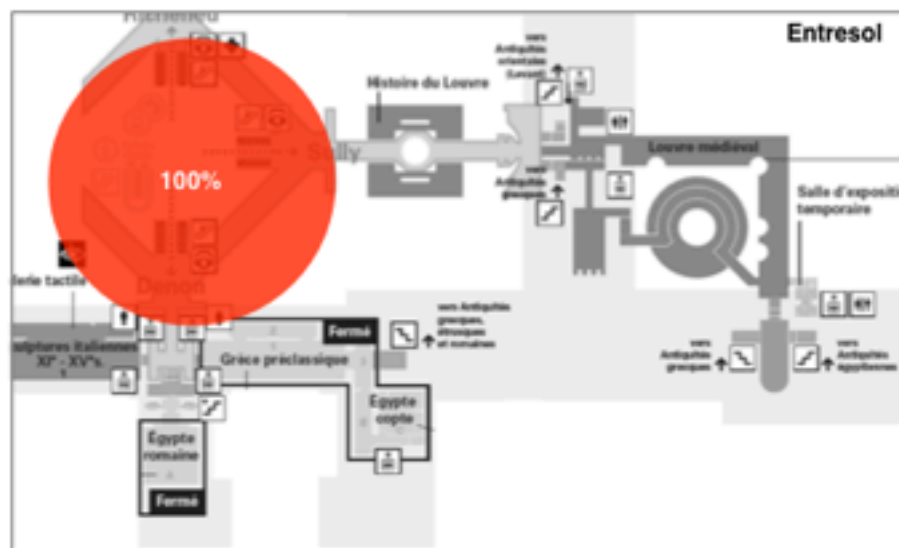
Visitor experience at the Louvre



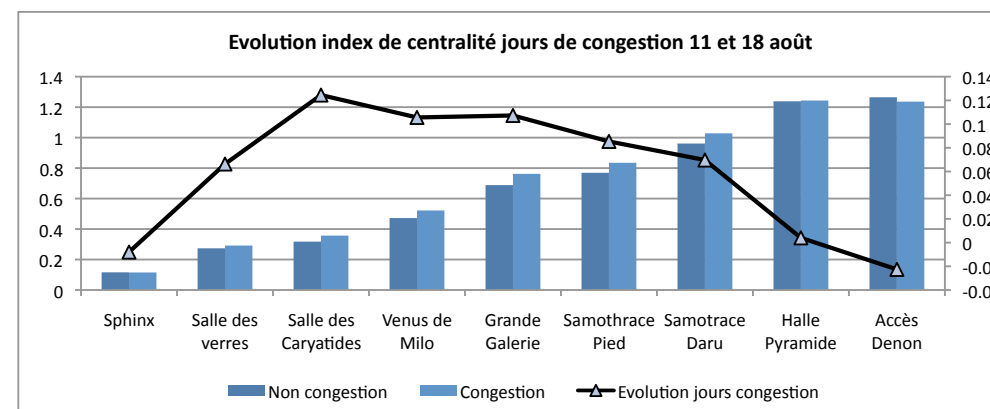
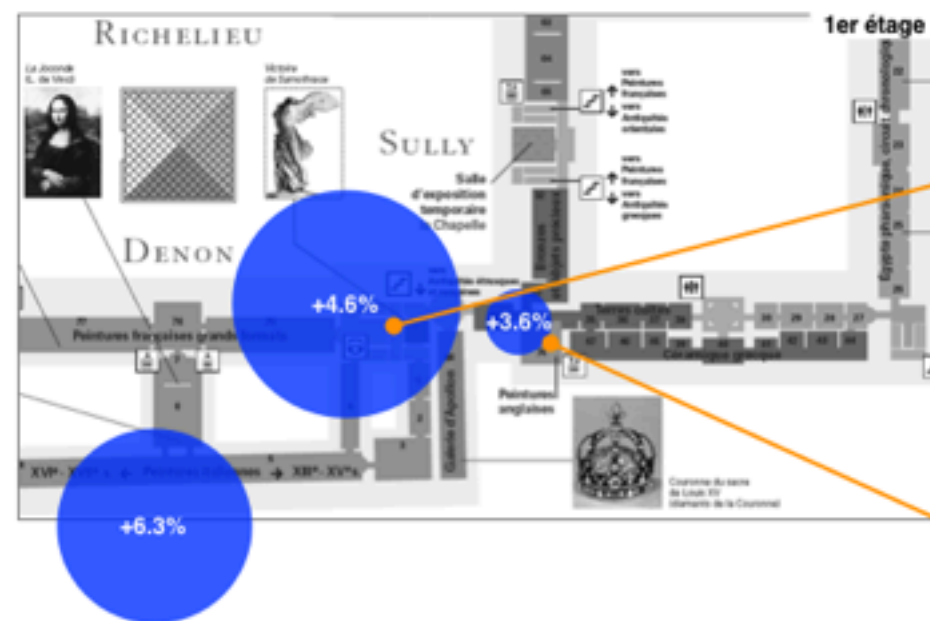
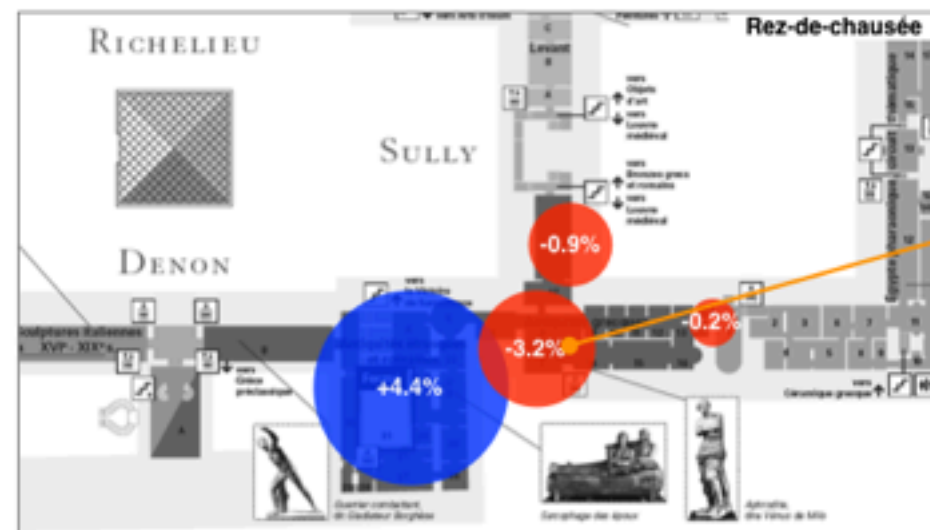
Support space management strategies



Measuring occupancy levels and flows



Hyper-congestion indicator



#2: New actors and intermediaries of the city with reorganization of the practices.

In the networked cities

Frictions are inevitable

They are part of the innovation process

Observe and analyze them

Leverage them!

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