

I dati e la vita delle grandi città del futuro

7 Novembre 2018

La Roca London Gallery ospita una mostra basata sulle attività di ricerca di Marco De Nadai e MOBS@FBK. La mostra propone l'idea che, se usati responsabilmente, i dati personali potrebbero essere la chiave per una migliore progettazione urbana

La **Roca London Gallery** è uno spazio progettato da **Zaha Hadid Architects**, un'esperienza in evoluzione sul tema dei valori del design, dell'innovazione, della sostenibilità e del benessere. Ospita eventi sociali e culturali, mostre e installazioni.

Dal 15 settembre 2018 al 26 gennaio 2019 ospita una mostra gratuita dal titolo "I DATI E LA VITA DELLE GRANDI CITTÀ DEL FUTURO". È ispirato all'emblematico libro "[The Death and Life of Great American Cities](#)" (La morte e la vita di grandi città americane) del 1961, del pioniere dell'urbanista, attivista e scrittrice Jane Jacobs. In esso, sollevando controversie per la mancata ampia raccolta di prove, la Jacobs era riuscita a identificare le quattro condizioni necessarie per una pianificazione urbana di successo, ovvero "i quattro generatori di diversità". Uno studio condotto da un gruppo di ricercatori dell'Università di Trento, guidati da Marco De Nadai, e i cui lavori faranno parte della mostra della Roca London Gallery, ha rivelato che le sue teorie erano incredibilmente accurate. Il metodo di De Nadai, un'alternativa molto più economica e veloce alla lunga e costosa raccolta di dati derivati da sondaggi, o a studi sul comportamento dei pedoni, utilizza una nuova generazione di database contenenti dati sulla città – quali OpenStreetMap e Foursquare – integrandoli con i dati registrati dai telefoni cellulari che mostrano il numero e frequenza delle chiamate in un'area e identificano così le aree più vivaci di una città. Questo nuovo approccio è rivoluzionario per la pianificazione urbana in quanto offre uno strumento oggettivo basato sull'evidenza per valutare aspetti quali la qualità, la vitalità e la diversità della vita cittadina. Piuttosto che basarci su una prospettiva "dal satellite", siamo ora in grado di capire come funziona una città "dalle strade verso l'alto", fornendo una via empirica a ciò che Jacobs chiamava "l'avventura di sondare il mondo reale".

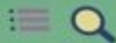
“

It is futile to plan a city's appearance,
or speculate on how to endow it
with a pleasing appearance of order,
without knowing what sort of innate,
functioning order it has.”

JANE JACOBS

THE DEATH AND LIFE OF GREAT AMERICAN CITIES

THE DEATH AND LIFE OF GREAT ITALIAN CITIES



YEAR

2016

DATASETS

Call Data Records, Foursquare, OpenStreetMap,
Italian Census, land use and infrastructure data

UNIVERSITY

Fondazione Bruno Kessler, University of Trento

LOCATION

Trento, Italy

TEAM

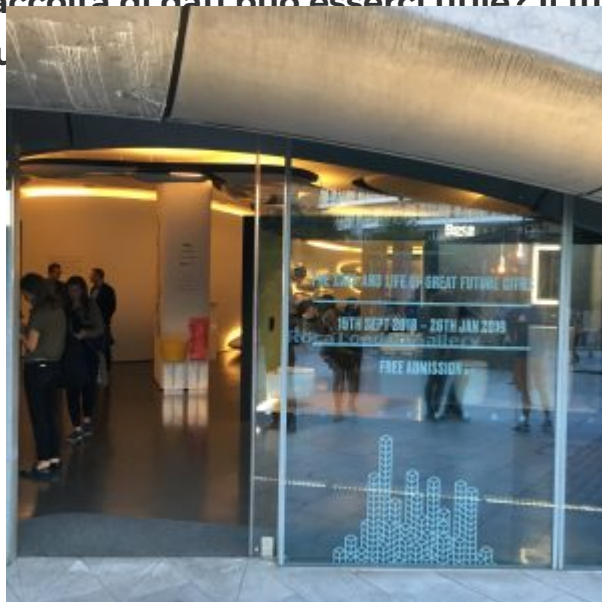
Marco De Nadai, Jacopo Staiano, Roberto Larcher,
Nicu Sebe, Daniele Quercia, Bruno Lepri

his work connects urban planning theories with real-time behaviour of people. New data sources such as mobile phones and online geographical data can now be combined to evaluate the vitality and liveability of neighbourhoods.

Empirical data can not only help mitigate discussions based on stakeholders' opinions, but also, and ultimately, help urban planners and architects design better places."

ICO DE NADAI

La raccolta di dati può esserci utile? Il futuro di una progettazione urbana centrata sull'u





THE DATA AND LIFE OF GREAT ITALIAN CITIES – TESTING JANE JACOBS' THEORY OF URBAN VITALITY

Although widely adopted by planning professionals, Jane Jacobs' 'four generators of diversity' from *The Death and Life of Great American Cities*, have over the years attracted criticism partly due to the lack of empirical evidence. Purely based on her acute ability to observe city life, Jacobs' argument that a set of static conditions relating to a district's buildings and their use can promote economic vitality, had until recently never been verified. However, in 2015, after a 10-year study of pedestrian surveys establishing city diversity, researchers in Seoul were able to compare the results to Jacobs' four conditions (applied to the same city), and prove that her theory was correct.

With the ambition to find a quicker and more scalable method for proving Jacobs' predictive power, researchers at the University of Trento, Italy, recently developed the project *The Death and Life of Great Italian Cities*. Using a mix of pre-existing large-scale datasets – from Italian Census to Call Detail Records – the team studied six Italian cities, including Milan and Rome.

Not only does the project successfully test Jacobs' theory, it suggests a framework for easily tracking structural features (Jacobs' four conditions), proven to be linked to vibrant city life. This could give



Ville Radieuse (Radiant City), Le Corbusier, unrealised city master plan, 1924



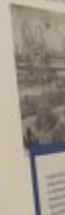
At the core of the Ville Radieuse concept is city zoning. Le Corbusier proposed separating the city into commercial, residential, business and entertainment zones. His theory was that the city's parts would - like the parts of a machine - work together as a whole, creating a more efficient and functional urban environment.

A 'Boeserville' in Portland, Oregon, 1936



Portland, Oregon, 1936. This model shows a cluster of tall, rectangular apartment blocks arranged in a grid pattern, with a central area designated for commercial and entertainment use. The model was created by the architect and urban planner, Frank Lloyd Wright, who was inspired by Le Corbusier's Ville Radieuse concept.

Boeserville City Plan Frank Lloyd Wright in The Observer William Lloyd Garrison

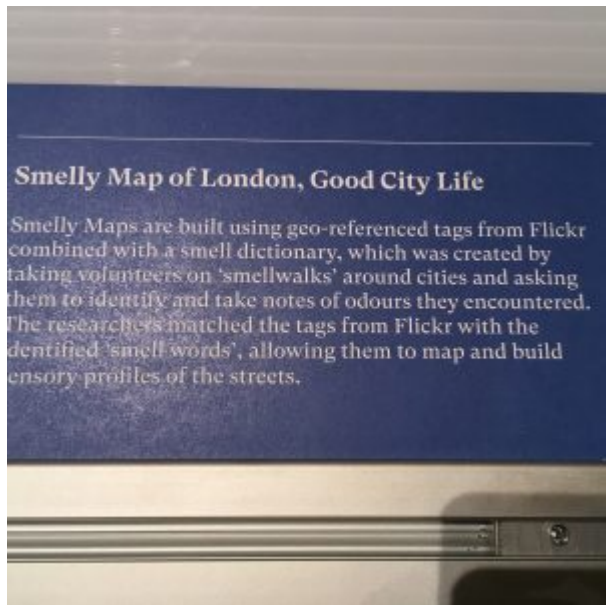


Portland, Oregon, 1936. This model shows a cluster of tall, rectangular apartment blocks arranged in a grid pattern, with a central area designated for commercial and entertainment use. The model was created by the architect and urban planner, Frank Lloyd Wright, who was inspired by Le Corbusier's Ville Radieuse concept.

What can be learned about cities from the social media generated by its residents? City dwellers capture a vast amount of information about their movements and perceptions through location-based applications on their smartphones. From check-ins on Facebook to geo-tagged pictures uploaded to Instagram and Flickr, we leave an endless trail of digital footprints behind us on social media. Researchers are increasingly realising that these footprints can give an on-the-ground snapshot of how people actually use and experience cities.

Here we present two projects utilising social media data to map the dynamics and character, and the sensorial and emotional layers, of cities. *Livehoods*, developed by researchers at Carnegie Mellon University, uses Foursquare check-in patterns together with clustering algorithms to map the places people use in a city, combined with the patterns of people using them. This creates an alternative to a traditional map of units such as neighbourhoods, as it takes into consideration city dwellers and their activity patterns.

The researchers behind the initiative *Good City Life* have used social media data matched with crowdsourced dictionaries to map (words relating to) the odours and sounds of cities. The resulting *Smelly Maps* and *Chatty Maps* include both positive and negative sounds and smells - as opposed to traditional mapping of noise and pollution - highlighting that olfactory and audible experiences can have positive effects on city dwellers.









Today, we are collecting a staggering amount of visual information (photos, videos, etc.) about our cities. Using new systems we can analyze it - and better understand the places we live in: anything from traffic congestion, to the quality of the building stock, to the presence of trees and green areas.

It is like borrowing the eyes of millions of amateur photographers and using them to better understand our urban habitat."

ALDO RATTI
DIRECTOR, MIT SENSEABLE CITY LAB

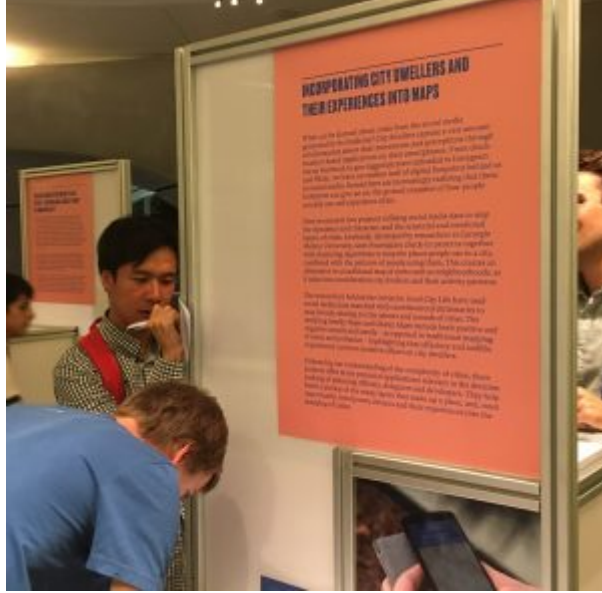
KEY TO DATASETS	
	ANALYTICAL MODEL The model is a data-driven system that analyzes the data collected from the city's sensors and cameras to identify patterns and trends in urban development.
	VIDEO The video dataset consists of a large number of surveillance camera feeds from various locations throughout the city, providing a comprehensive view of urban activity.
	SPATIAL DATA The spatial data dataset includes information about the physical layout of the city, such as street networks, building footprints, and land use patterns.
	TRANSPORTATION The transportation dataset tracks the movement of vehicles and pedestrians throughout the city, providing insights into traffic flow and public transit usage.
	POPULATION DATA The population dataset provides information about the demographic composition of the city, including age, gender, and income levels.













Una serie di eventi serali, aperti al pubblico, saranno organizzati in concomitanza con la mostra.

Goditi Londra e visita la mostra!

LINK

<https://magazine.fbk.eu/it/news/i-dati-e-la-vita-delle-grandi-citta-del-futuro/>

TAG

- #big data
- #DataLifeFutureCities
- #Digital Cities
- #future
- #life

MEDIA COLLEGATI

- Roca London Gallery: <http://www.rocalondongallery.com/en/activities/detail/199>
- PAPER "The Death and Life of Great Italian Cities: A Mobile Phone Data Perspective": <https://arxiv.org/abs/1603.04012>
- Mobile and Social Computing Lab @ FBK: <https://ict.fbk.eu/units/mobs/>

AUTORI

- Giancarlo Sciascia