### Aesthetic Capital & Social Media

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TEL Disconstructions of the second se

### <start-recap>

### twitter

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ERSTWITTERI

top-using city London

North Weald Tracking Gross Community Happiness from Tweets [CSCW] r=.350 word count r=.365 MaxEnt Rickmansworth Moot Park Oxhey Buckhurst h Brentwood Chalfont Chigwel St Reter inner Romford Brent Islington Ive Ockendon London Lambeth Greenwich Grays Hounslow Wandsworth Lewisham Tilbur Bexley Dartford Swanscomb Staines Ashford Kingston Darenth Egham Merton Upon Thames Bromley Sunbury-on-thames Swanley Beckenham Shepperton ter Chertsey! Addlestone Weybridge Croydon Sutton Esher West Byfleet Epsom Cobham Banstead Woking Ashtead Warlingham

### Talk of the City [ICWSM]





### What is a gravity model?



#### build a gravity model ~ flow of passengers







### gravity works: r= .72!



### Hypothesis 1

Where the model **fails to fit** well unexplained bit: prevailing socioeconomic factors



### Hypothesis 1

Where the model <u>fails to fit</u> well unexplained bit: prevailing socioeconomic factors We look at (gravity)**Residuals** 



### **Reading List**

Finger on the Pulse: Identifying Deprivation Using Transit Flow Analysis. CSCW 2013.



clustered according to their geography





10 weeks



-

**Communication Volume** 

### **Reading List**

Finger on the Pulse: Identifying Deprivation Using Transit Flow Analysis. CSCW 2013.

Twitter ain't Without Frontiers. CSCW 2014.

### **Reading discussion**

#### 7 A PSYCHOLOGICAL MAP OF NEW YORK CITY1

#### A city consists of streets, squares and buildings that exist in objective, geographic space. But there is also a psychological representation of the city that each inhabitant carries around in his head. When a man comes to a strange city, at first he does not know his way around. He sticks close to a few known reference points, such as his hotel or the main shopping street, and quickly feels disoriented if he strays from these few familiar paths. With increasing experience, he begins to build up a picture in his mind of how the streets connect with one another, the relationship among paths, and specific turns he must take to move from one point to another. He acquires a representation of the city which we may call a psychological map. A psychological map is the city as mirrored in the mind of an individual. The acquisition of an adequate representation of the city may be a slow process, filled with confusion, and inevitably only partial in its achievement. Very few individuals, if any, have a total grasp of all of the streets and intersections of a major metropolis, but each of us holds at least the fragment of such a map.

In this paper, we shall describe a psychological map of New York City constructed by our research team. But before going further, I would like to raise some general questions about psychological maps and review some of the work that has been carried out in this field. We start with the notion that the person has a psychological representation of some features of the environment. The first question, then, in constructing a mental map, concerns the units of the environment that are to be mapped. In previous research, the scale of maps has varied from those of small campuses to the maps people have in their head of the entire world (Saarinen, 1971; Hooper, 1970; Stea, 1969; Gould, 1967). There is an important difference, of course, in acquiring a mental map of one's campus and that of the world. The campus map is mediated by direct experience, moving about the university buildings and piecing scenes together into some cognitive structure. The image of the world is learned not from direct exposure, but through formal schemata of it as represented in maps and atlases.

Once we have decided what units of geography are to be mapped, we need to decide which psychological features are of greatest interest. The most basic question

This paper was written in collaboration with Judith Greenwald, Suzanne Kessler, Wendy McKenna, and Judith Waters. It was first published in American Scientist, Vol 60, No. 2 (March-April 1972), pp. 194-200. Copyright © renewed 2000 by Alexandra Milgram. Reprinted by permission

### The Individual in a Social World









### urban**opticon.org**



## Recognizability

nark,

hyde

### Recognizability

[MILGRAM 72]



# Recognizability *vs*Distinctiveness

# Recognizability

# Datasets flickr foursquare UNDERGROUND tube twitter passengers



### <end-recap>

# [cscw'14] Aesthetic Capital:

What Makes London Look Beautiful, Quiet, and Happy?







Christine Outram is a Christine Outram is a human-centered #smartcity and #bigdata strategist, music lover, designer of the Copenhagen Wheel & Senior Inventionist at Deutsch LA.



in What I Learned Building... · 5 min read

### What Starbucks Gets that Architects Don't

Or why I left the architecture profession









How to rank images based on partial pairwise comparisons?
I) win-loss ratio. Mapping the Inequality of Urban Perception. PLOSONE.
2) Wiki surveys: Open and quantifiable social data collection



# I. (r,g,b) 2. [Park] Efficient use of local edge histogram descriptor 3. SURF Speeded Up Robust Features

# colors









# I. (r,g,b) 2. [Park] Efficient use of local edge histogram descriptor 3. SURF Speeded Up Robust Features



### cor(surf\_features,beauty\_score)



# Visual objects





### victorian & red-brick



### public gardens



### 253 patterns of good urban design (1977)

A Pattern Language Towns ·Buildings ·Construction



Christopher Alexander Sara Ishikawa · Murray Silverstein with Max Jacobson · Ingrid Fiksdahl-King Shlomo Angel "Cars give people wonderful freedom and increase their opportunities. But they also destroy the environment, to an extent so drastic that they kill all social life."





# cars aren't always bad



### "Isolated buildings are symptoms of a disconnected sick society"





"There is evidence to show that high buildings make people crazy"

### glassed offices



### tall buildings aren't always bad



# happy city



# Evidence-based Design

# Whys meet Why nots

Why top-down star architects Why not bottom-up residents

Why efficiency only Why not fit for(human) purpose



### Why urban sociology|web Why urban sociology+web





# SWiPE



### Emotiv (low-cost mobile EEG)



short-term excitement, frustration, engagement, arousal, & meditation level

### Class projects

Teams of 3 people
Work on one of the proposed projects or on your own
April 27: Mid-term presentation of project results

Predicting urban beauty with social media
 Mapping neighborhood data for global cities (1+ teams)
 Mapping crowd-funding transactions across countries
 What makes tweets from health apps engaging?
 Analyzing tweets about nuclear disasters

(more info about the projects on the class page)



### Questions