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- Can the city hack technology?
- Open-sourcing the neighborhood
- Apps that transform low-income communities into back-up systems for the disadvantaged

CONFLITTI DELL'ERA URBANA

CONFLICTS OF AN URBAN AGE

Digitization as a variable

Diverse meanings:
Derivative
Transformative
Constitutive

Factoring in social logics

- Three elements:

  a) **Imbrications** between IT and social contexts (broadly understood)

  b) **Mediating cultures** (access is not just shaped by technical competence, interface design, etc): **cultures of use**

  c) **Scaling** (many different forms:

1)The powerful: e.g. in financial markets we see a new type of risk, market risk -a network effect; various types of feedback; effects of expanding a program.

2) among the powerless: significant scaling can happen via recurrence –horizontal massing

Continuing..

- Mediating cultures/cultural practices:
  - Not just a question of access to and use of tech

    ---the dense environments within which users or potential users work, live ,etc. can have a shaping influence.

    e.g. highschool users …, traditional scholars of the Khoran using hypertext…..

    - Organizational complexity alters results/outcomes of use…..e.g. fin trading network vs public library : same cable/different use; different path dependence.

Socio-Digital Formations

- Electronic structures (structurations) that reflect both technical capabilities and endogenized social logics.
- Not all digital networks are such formations. Data pipe lines are not.
- Yes, all technologies are “society frozen.”

  But within a given space and time technologies are also distinctive conditions or capabilities.

Two cases where digitization has been transformative/constitutive

- A) Key aspects of global financial markets today (which make it different from earlier phases of global finance): orders of magnitude, centrality of transactivity, level of complexity of instruments (software).
- These have given Finance enormous added power over governments

  Enable the making of a new norm, a new normativity
- B) At the other end::::
- Resource poor-organizations can become part of global politics in ways that construct a politics of the global that is *centered* on localities. Non-cosmopolitan globality.

Larger ecologies of meaning: in cities it becomes extreme

- The specific technical capabilities of interactive technologies deliver their utilities through complex ecologies.
- These ecologies include more than just the technical:
- They also include the logics of users
- And these can diverge significantly from the engineer's logic.
- In the city this means maximizing open source urbanism

Making a “whole” via recurrence Multi-sited knowledge

- The technology can accommodate multiple particular settings or struggles, and still encompass them into a “whole” through horizontal dynamics, such as for instance, recurrence, rather than vertical integration.
- *Recurrence* of conditions/situations constitutes those localized settings/struggles as a multi-sited whole.
- Such possibilities and systemic drives *undermine generalization*. –about the local, the powerless, immobility, potentiatlities

Velocity: a driver for informalizing knowledges

- The greater velocities that digitization makes possible further drive the informalizing of whole bodies of knowledge, or some of their components.
- Velocity also makes legible, or helps us realize, the fact that a given knowledge might be in a trajectory that can go in different directions
- This in turn can generate emergent types of knowledge – that is, knowledge that is as yet informal, though it may eventually become formalized.

Social logics can alter tech capacities

- Interactive domains are inherently distributive given their technical properties.
- But once we recognize that social logics are at work in such interactive domains it is not necessarily the case that those distributive outcomes will be present every time.
- In both situations though, informal knowledge is ascendant –holds for high finance and for civil society orgs. Both exit bureaucratized and formalized systems.

Intelligent Cities: Risk of technical obsolescence

- Excessively ‘closed’ technical systems that involve people (example Intelligent Cities) are at high risk of becoming obsolete .

They do not register the way users might keep diverging from what the engineer had in mind.

The more widespread the use of intelligent systems in a city, the more the city itself is at risk of becoming obsolete.

DEAD CITIES

What has enabled cities to have long lives?

The City is a complex system.

BUT IT is Incomplete.

- Historically, it is this mix of complexity and incompleteness that has enabled cities to outlive enterprises, kingdoms, and nation-states.
- Installing closed technical systems in a building to govern all its major functions would weaken that mix.

The city tells us what works

- The city is one window into understanding successful technological innovations for urban systems and urban life
- The city as a powerful “hacker” of technologies: it alters the original design, adjusts it to urban users.

Can Technology Hack the city?

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DE-URBANIZING A CITY

But ---The City as Hacker

- Of spaces
- Of technologies
- Of individual's self-interest: the capacity of making a collective good even if the individuals involved are selfish and nasty.
- Of excessively rigid technological systems

Urbanizing an old oil platform

Transforming abandoned oil platforms into ocean mini cities

Project on future of work & Tech

- Two issues.
- 1) How digitization can enhance the work life of low-income workers by addressing the specific needs of these workers at their workspace and in their neighborhoods.
- There should be more innovations that meet the needs and constraints of low-wage workers.

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- The key aspect that concerns me is that this digital under-utilization constructs a radical differentiation between work space and life-space (i.e. the neighborhood) for low-wage workers.

This is disabling and adds to the difficulties in their daily life at work and off work. Growing cultural distance...

Neighborhood is here used as a somewhat generic term to capture a fairly large local area with reasonable transport and generally modest socio-economic standing of households.

ISSUE 2

An emergent complication that increasingly affects all workers:

The use of semi-automated systems, which have seen particularly sharp innovations in the world of work. Also a cultural dimension...

Such systems can generate ambiguity about responsibility when something goes wrong insofar as the worker still has a role in their deployment.

E.g.: In the case of factory and delivery workers, the increase in the use of robotic tools and machines can be devastating if something goes wrong since they probably don't have access to specialized lawyering if the employer does not pay for it and is in most cases the accused party anyhow.

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High-end workers also confront this given the sharp increase in the use of automated computer transactions of important/high-value operations that generate a similar ambiguity regarding responsibility for a mistake. But they are likely to have access to that specialized lawyering.

One helpful source for in-depth discussion of this ambiguity about responsibility (the machine or tool versus the worker using it) can be found in a series of lawsuits: these provide detailed information about how workers can easily be at the losing end of such lawsuits. But they also make visible the ambiguities of the work process and of the available laws in establishing who is guilty when something goes wrong

USEFUL APPS FOR LOW-INCOME WORKERS AND NEIGHBORHOODS.

- Several efforts.
- Examples of mostly recent applications geared to modest-to-low-income households and neighborhoods.

- *Kinvolved* a simple for teachers and after school staff: makes it easy to connect to parents in case of a student's lateness or absenteeism. In many of our schools in poor neighborhoods lack or difficulty of communication between the school and a student's home has allowed self-destructive conduct to worsen, damaging a student's chances for a job or acceptance to college.
- The low-income worker knows that if there is trouble s/he will be alerted

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- App developed by Propel, simplifies applying for government services, a notoriously time-consuming process. Now there is the option of a simple mobile enrollment application.
- *Neat Streak*, lets home cleaners communicate with clients in a quick non-obtrusive way.
- A money management app for mobiles which combines cash and loans requests, simplifying the lives of very low-income people who need to cash their pay checks before pay-day, and can avoid the high interest rates charged by so called “pay-day sharks.”

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- A very different type of app from the aforementioned, far more complex and encompassing is *Panoply*:
- an online intervention that replaces typical therapy involving a health professional with a crowd-sourced response to individuals with anxiety and depression.
- What I find significant here is that it has the added effect of mobilizing a network of people, which may be one step in a larger trajectory of support that can also become a local neighborhood network.

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- app to develop new ways of working together online.
- Quite common among middle class users and in certain professional jobs, but far less likely among low-income workers.
- aimed at low-income workers and families, it could be extremely useful to the latter. It can enable a sense of individual worth to a network, and thereby solidarity and mobilization around issues of concern to low-income neighborhoods, families, and workers. Again, it can feed into individual worth (“I matter to my community”) and a sense of collective strength.

APPS THAT CAN STRENGTHEN THE COLLECTIVE SPACE OF THE DISADVANTAGED

- We matter to each other
- Open-sourcing the Neighborhood

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The City: Knowledge Partner

- The city is a generous partner in this work:
- it is a lens onto larger realities
- Many non-urban processes and organizations now have an urban moment in their trajectories.
- This type of analysis keeps us from only seeing as technologists/engineers.

Why do we want to keep cities complex and incomplete?

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UNSTABLE MEANINGS

- Deurbanizing the city
- Membership in a nation-state

Surveillance regimes

- **1,271 government organizations and 1,931 private companies work on programs related to counterterrorism, homeland security and intelligence in about 10,000 locations across the US**

- An estimated 854,000 people – nearly 1.5 times as many people as live in Washington, D.C. – hold *top*-secret security clearances
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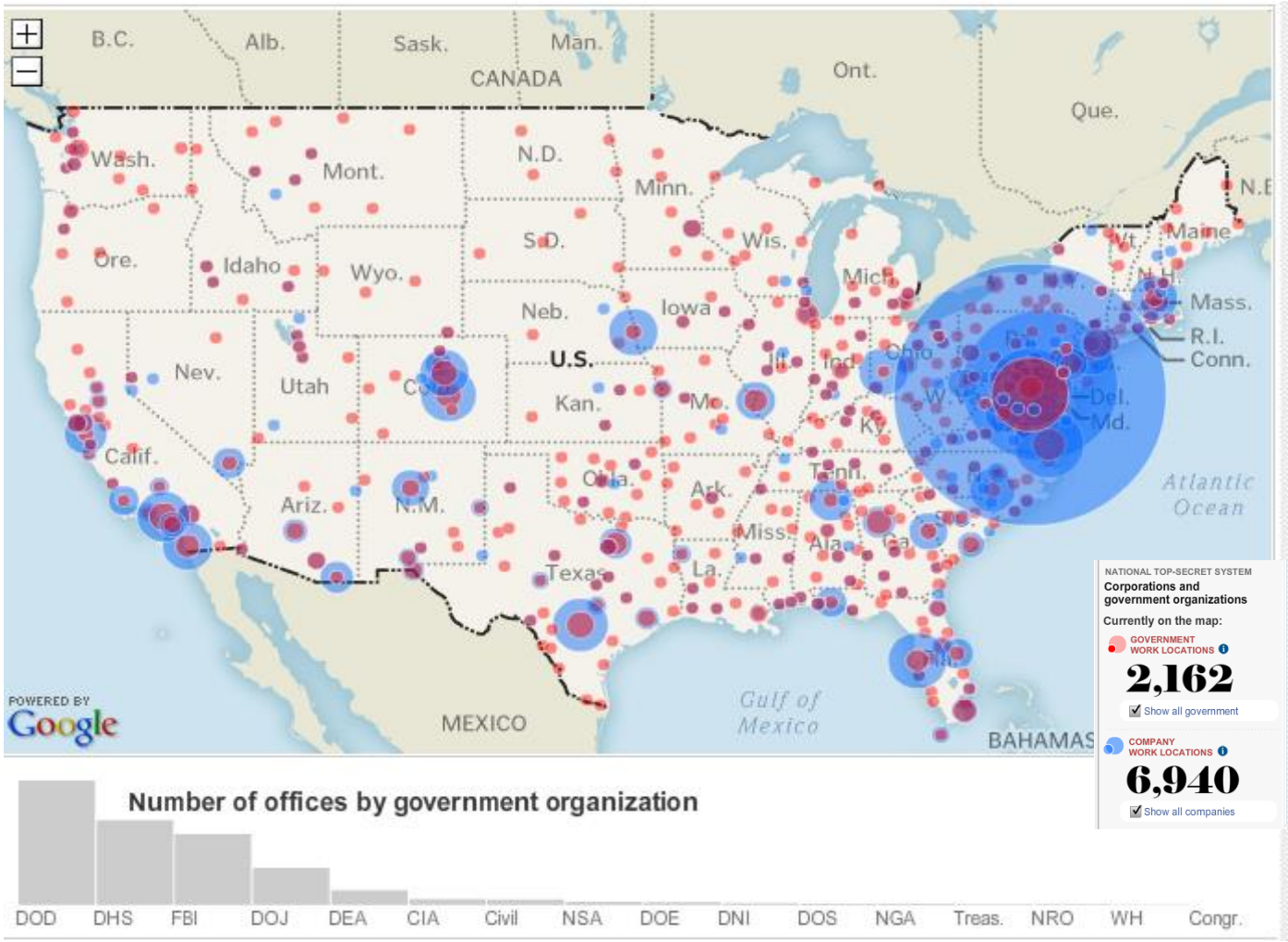
Map of government and private security agencies in the US



Source: Washington Post. 2010. "Top Secret America," Interactive Maps. *Washington Post*, July 2010. http://projects.washingtonpost.com/top-secret-america/map/

Specificity of ‘socio-digital formations’

- USING SOCIAL/CULTURE to capture the diversity and specificity of ‘socio-digital formations’ – digital interactions cannot always be reduced to the digital properties mobilized by such interactions

.

Different kinds of socio-digital formations make legible different articulation between the technical and the non-technical (cultures of use of, aims of users, the places were users are located

Focus is on digital interactive domains

- Analytically, I distinguish the technical capacities of digital networks from the socio-digital ecologies within which those tech capacities get activated.

- Intervening mechanisms that may have little to do with the technology per se can reshape network outcomes. Example: cultures of use, the condition/place in which users find themselves in or are located,
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Making a “whole” out of bits via recurrence

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