

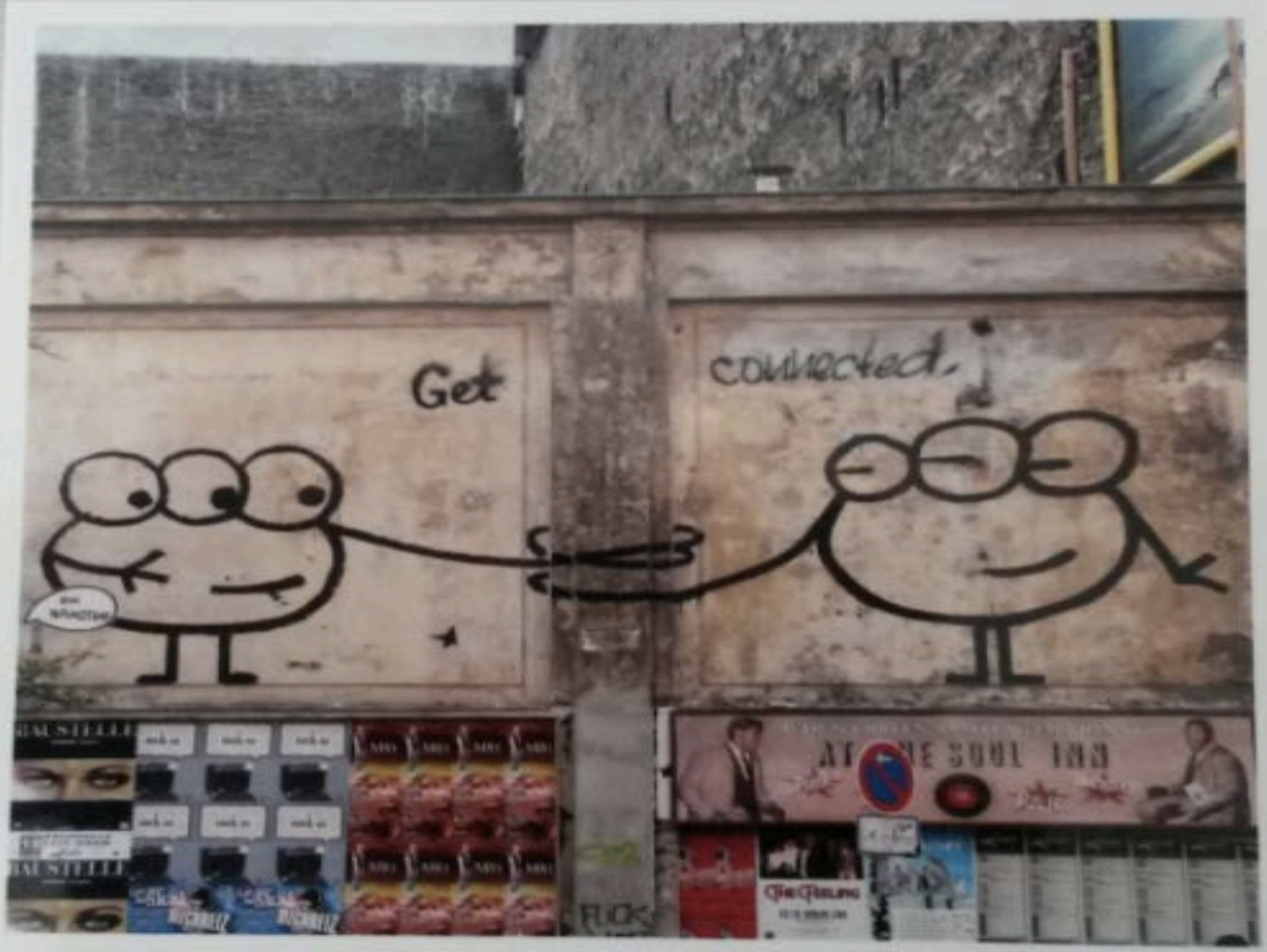
Technology power and human nature

@maria
farrell

22.11.17



arnes



How the IoT is changing public and
private spaces from town squares to
Twitter

...what that means for politics and
creativity

...and what we can do about it

Cities

















Affordances

“The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill ...

I mean by it something that refers to both the environment and the animal in a way that no existing term does.” James Gibson

What are the affordances of the city?

Opportunity

Anonymity

Services

Interaction



Manipulating affordances to
improve on the messiness of
human nature



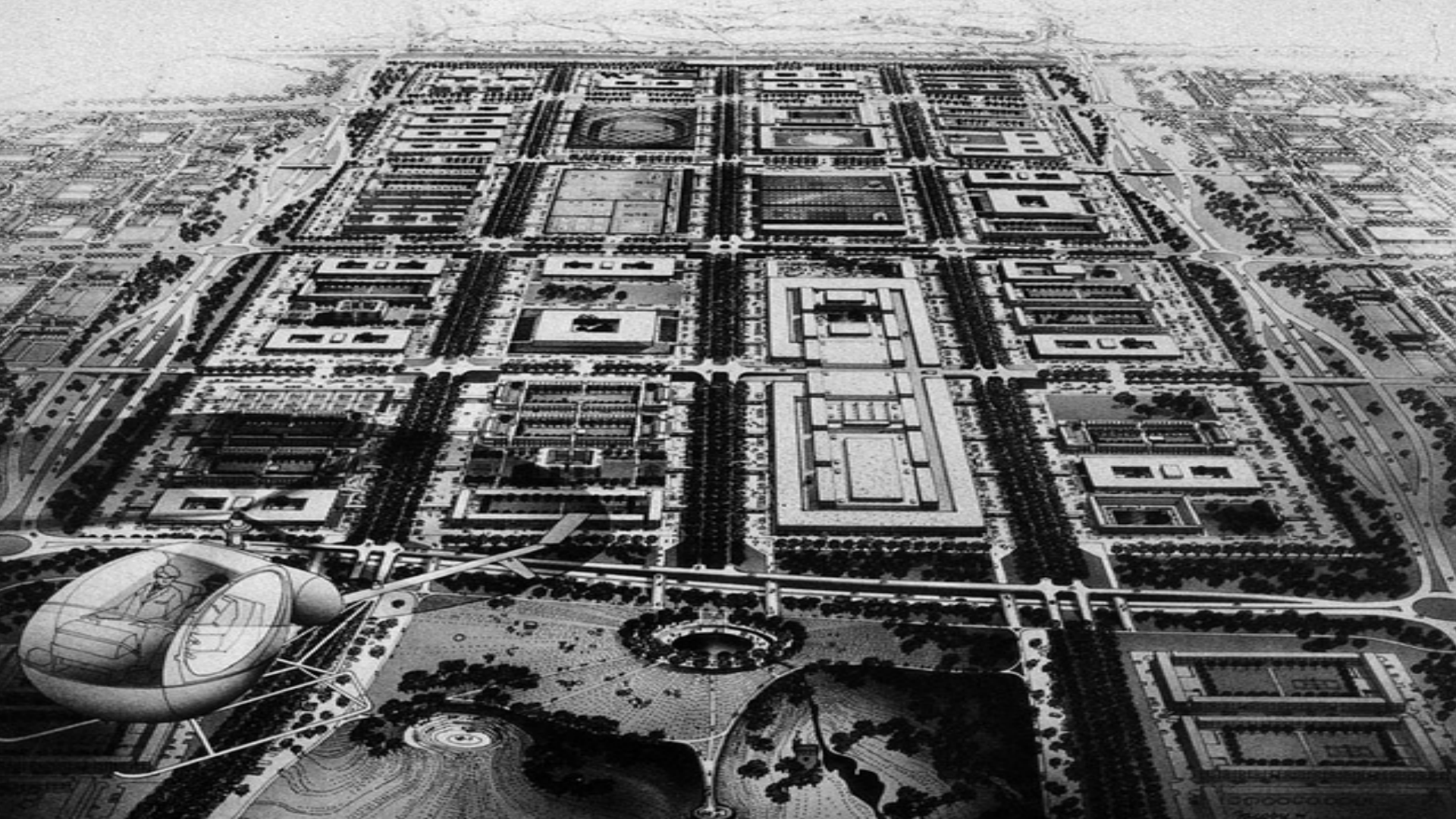
"Genius is personal, decided by fate,
but it expresses itself by means of
system. There is no work of art
without system." -- Le Corbusier

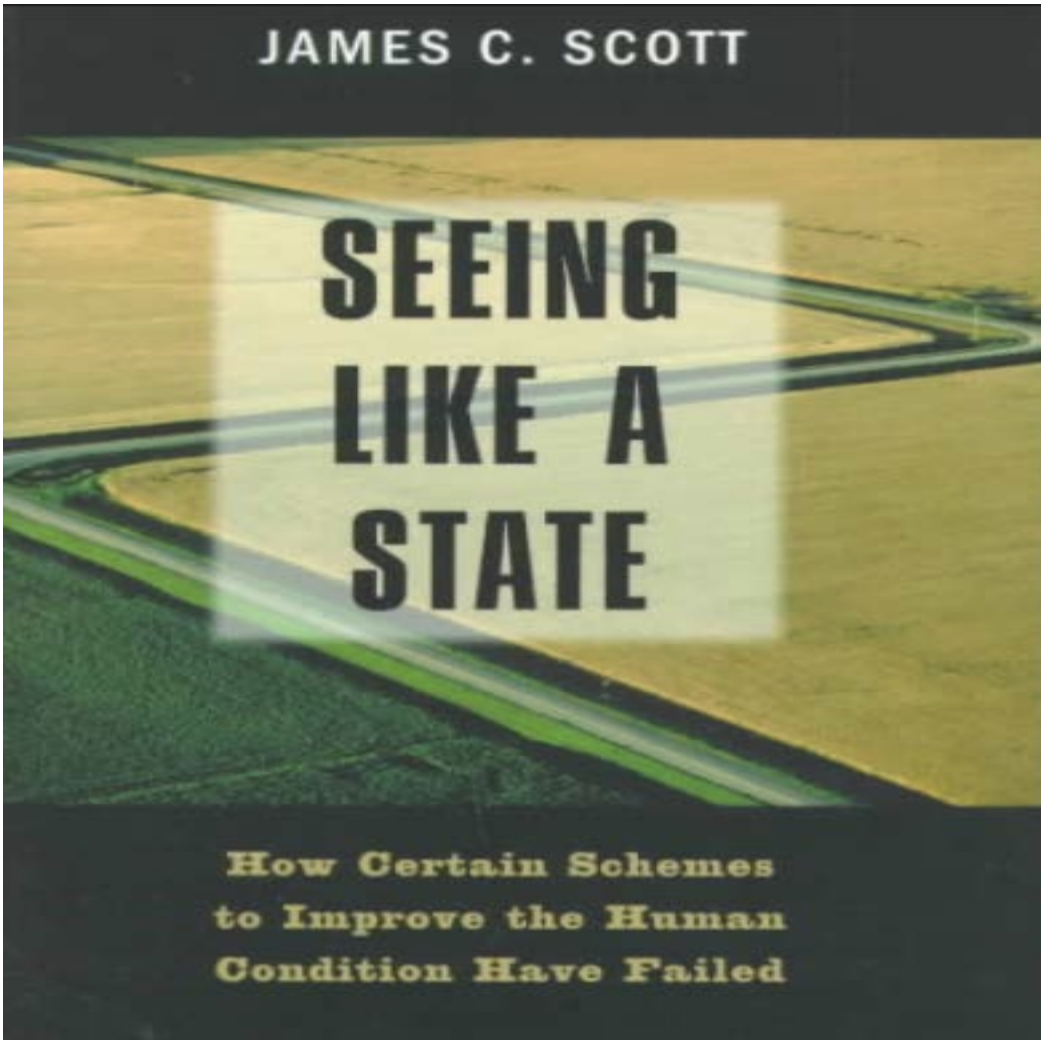


BRASILIA

- 10. Banks and Offices
- 11. Bus Terminal
- 12. Cultural Center
- 13. Cathedral
- 14. Ministry Buildings
- 15. Supreme Court
- 16. Congressional Buildings





An aerial photograph of a multi-lane highway interchange with several overpasses, set against a landscape of green fields and yellowish-brown land. A semi-transparent rectangular box is centered over the highway, containing the title text.

JAMES C. SCOTT

**SEEING
LIKE A
STATE**

**How Certain Schemes
to Improve the Human
Condition Have Failed**



DESIGN

The image shows a wet asphalt road on the left and a grassy area with fallen leaves on the right. A curved white arrow points from the 'DESIGN' label to the road. A straight white arrow points from the 'USER EXPERIENCE' label to the grassy area. The road has a yellow line and a white line. The grassy area has a tree trunk and some fallen leaves. The overall scene is a typical outdoor setting in autumn.

USER EXPERIENCE

James C. Scott:

“... a muscle-bound version of the self-confidence about scientific and technical progress, the expansion of production, the growing satisfaction of human needs, the mastery of nature (including human nature) and, above all, the rational design of social order commensurate with the scientific understanding of natural laws.”

Why the drive to control the city?

humans are unpredictable... they insist
on informal knowledge, emergent
practices, bottom-up processes... if
only there was a technology that
would change all that

Or, more to the point, why now?



CityMetric  @CityMetric · 2m



"We need a thorough rethink of the status of cities within the UN System"

citymetric.com/politics/we-ne...



“Cosmopolitan” was a coded, anti-semitic word for Jew

“Metropolitan” is now an insult

“Citizens of Nowhere” – an insult by the UK Prime Minister for Londoners, people with more than one nationality

Urbanization

2050:

64% of developing world

86% of developed world

... will be urbanized.





“... the NINJA (No Income, No Job, No Asset) generation. Greeks who feel the brunt of the Troika austerity initiatives. Dispossessed Arab and African youth in French suburbs. Detroiters beholden to “Emergency Managers”. Palestinians lobbing rocks at Israeli tanks. Rojava Kurds in northern Syria. Indignados on the streets of Spain. “June Days” Brazilians protesting public transport hikes. Occupiers in Istanbul’s Gezi Park. Umbrella kids in Hong Kong’s Occupy Central. Nuitards staked out around Paris’s Place de la République.”

They own the city, too

Henri Lefebvre

“... the ‘right to the city’ is ‘like a cry, and a demand’. In particular, the citizen has a right to participate in as well as to appropriate the city: that is to say, the people should be at the heart of any decision-making process about the creation and management of the city; as well as having the common right to use and occupy the spaces of the city without restriction.”

The Smart City

Typically...

- Lots of optical fibre
- Sensors to monitor air quality, parking spaces waste bins, snowfall...
- Sensor and data networks to regulate public transport, traffic, energy consumption
- Datafication of city-dwellers' movements and choices
- Surveillance for crime and social control

It should include...

The **delight** of technology when it's working:

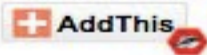
- Anticipating our needs
- Ubiquitous and invisible
- Solutions to collective problems

Smart cities look like this

Smart Cities Promise a New Way of Living

By Patrick J. Kiger

June 12, 2017



Text Size: **A A A**



The iconic white peaks of Denver International Airport's roof will form a backdrop for Peña Station Next. (©L.C. Fulenwider Inc.)

**IoT for
Electronics**

Building
Management

**IoT for
Retail**

Maintenance
& Repair

**IoT for
Automotive**

Dynamic People
Flow

**IoT for
Insurance**

Facility
Management

**IoT for
Manufacturing**

Asset
Management

**IoT for Energy
& Utilities**

Inventory
Management

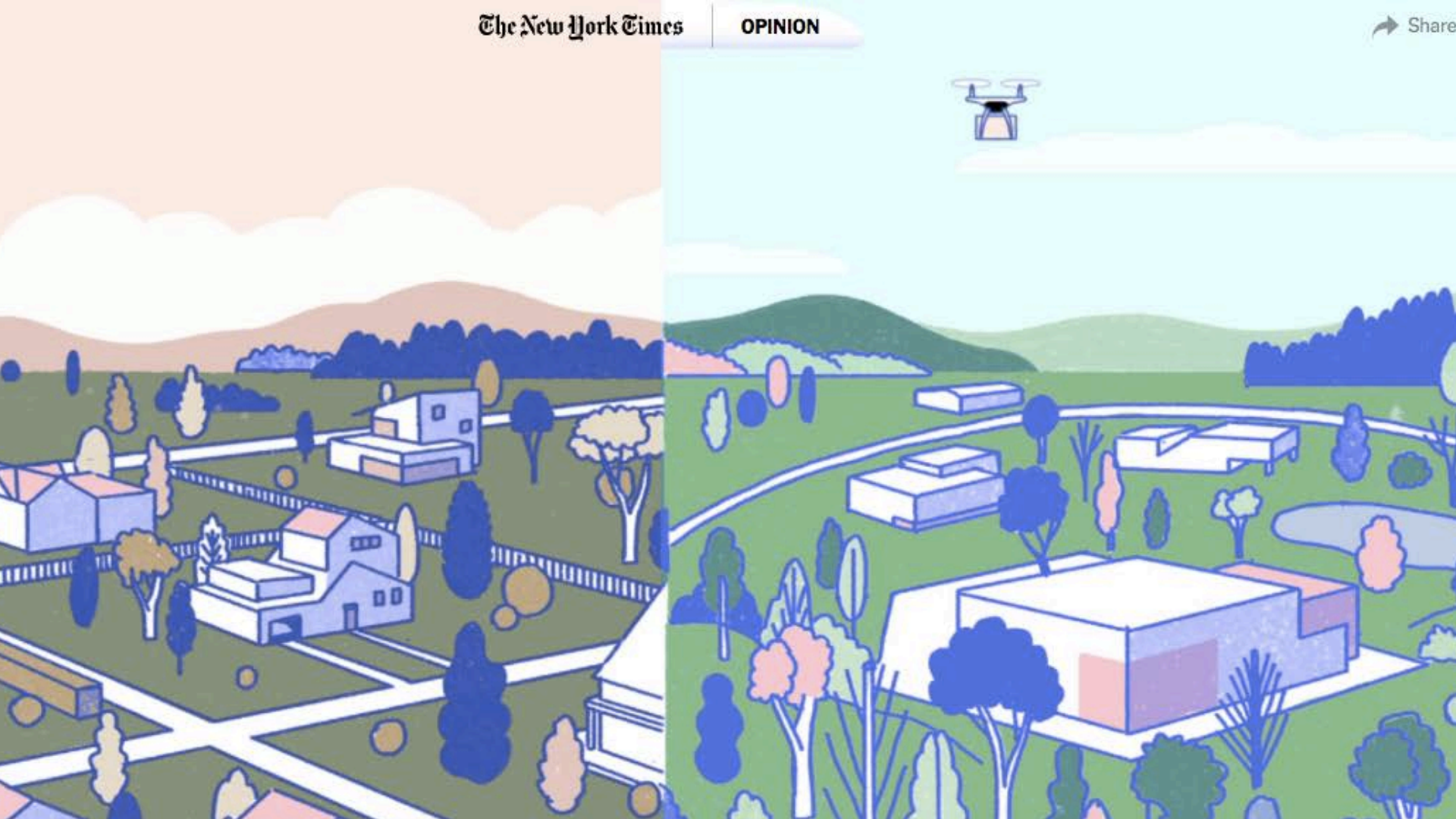
**IoT for
Industrial**

Map & Road
Analysis

**IoT for
Aviation**

Real Estate
Management



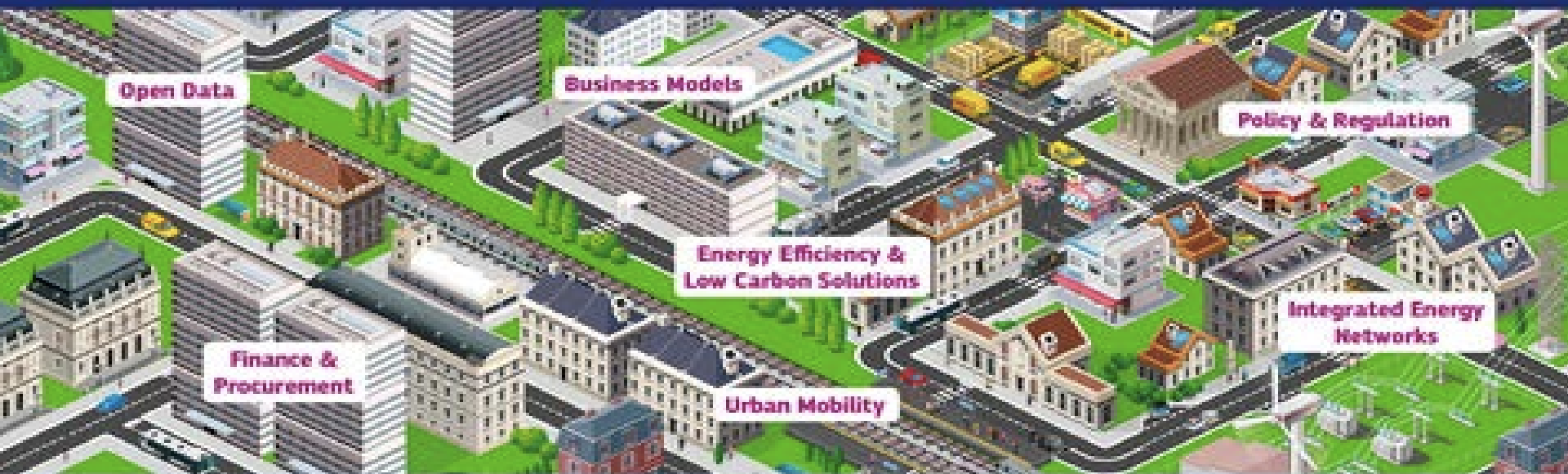




 **Save** innovation
Partnership

Smart Cities & Communities

Invitation for Commitments



1 Smart Cities and Community a European Innovation Partnership

How to make our cities smarter?

The Partnership integrates the **ICT**, **energy** and **transport** sectors. It aims to apply innovative solutions to tackle issues such as **congestion**, **air pollution**, **high energy costs** and to achieve **better mobility**, **cleaner urban environment**, **energy efficiency**.



5

2020

33/40

78%

160

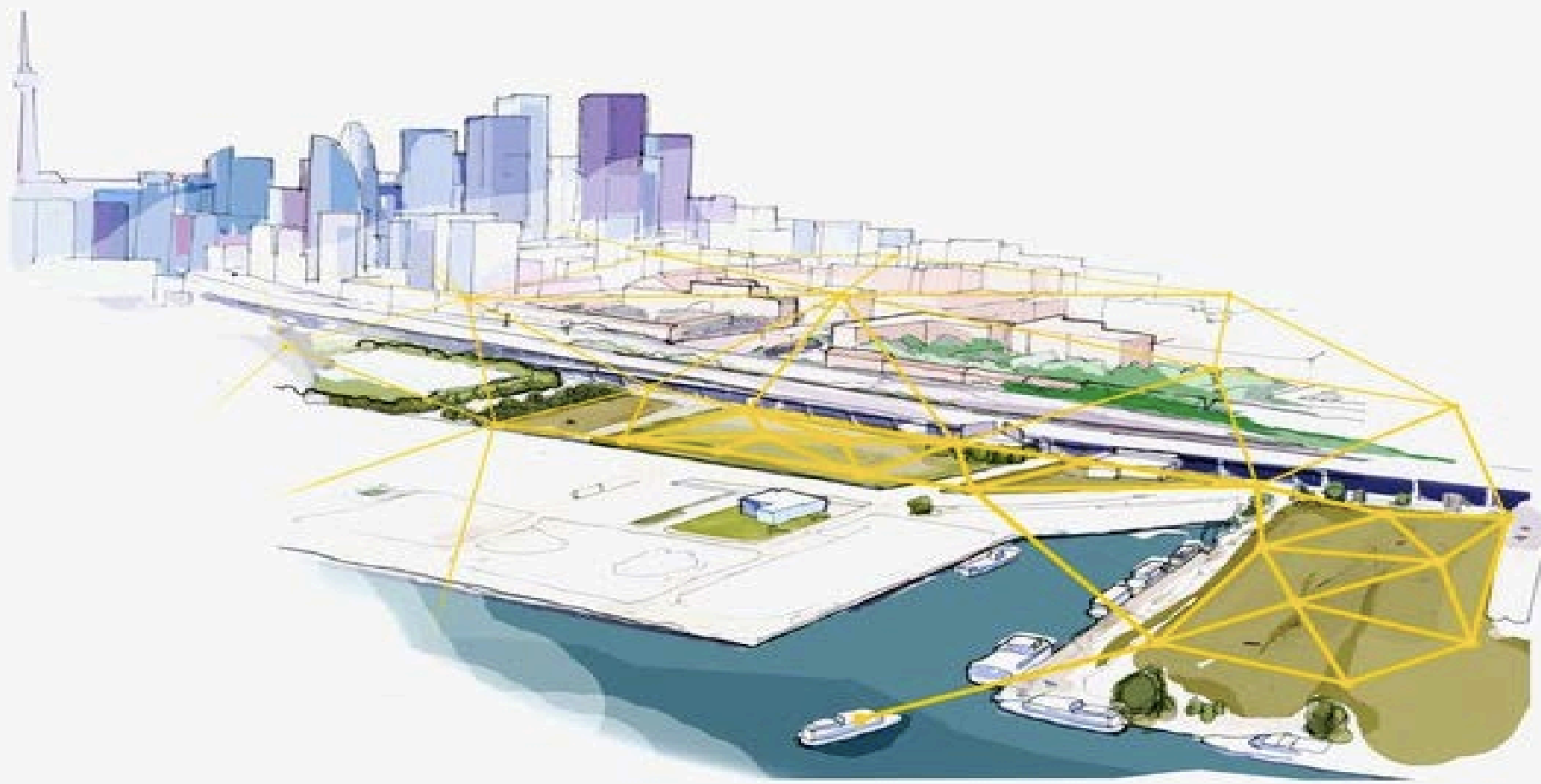
15

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2

Alphabet in Toronto

"Sidewalk Toronto will combine forward-thinking urban design and new digital technology to create people-centred neighbourhoods that achieve precedent-setting levels of sustainability, affordability, mobility, and economic opportunity," said Sidewalk Labs.





“The genesis of the thinking for Sidewalk Labs came from Google’s founders getting excited thinking of ‘all the things you could do if someone would just give us a city and put us in charge’.”

Eric Schmidt

“Competition is for losers.”

The downsides of the “smart city”

Legibility

Smart City Intermediaries

Vendors:

IBM, Siemens, Cisco, Microsoft, Hitachi, Huawei, Microsoft, Ericsson

Privately delivered tech answers to public policy questions ...

- Vendor lock-in
- Transparency and accountability
- Privacy and autonomy

Citizens both pay for the “smart city”
and are exploited by it

- Vendors sell their product / services + gain access to citizen data
- Incentive to over-collect, because it ‘might be useful’...



Wondering why @HeathrowAirport wifi login insists on knowing my flight info.
Poor data protection #necessity #proportionality #dataminimisation



2



5



-

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-

...



Heathrow Airport ✓

@HeathrowAirport

Follow



Replying to @mariafarrell

Hi Maria, the data is collected anonymously.
Thanks

1:21 AM - 21 Nov 2017



↻ Stefan Zimmermann Retweeted



US Ignite @US_Ignite · 17h

Use smart data to achieve your city's goals smartcitiesworld.net/opinions/use-s
... via @SmartCitiesW #SmartCities #BigData #SmartData #Data #Innovation



Use smart data to achieve your city's goals

Data allows cities to act on facts and insights rather than on beliefs and opinions, says Martin Klein, global vice president and head of the Industry Business Unit for...

smartcitiesworld.net



2



1



Henri Lefebvre

“... the ‘right to the city’ is ‘like a cry, and a demand’. In particular, the citizen has a right to participate in as well as to appropriate the city: that is to say, the people should be at the heart of any decision-making process about the creation and management of the city; as well as having the common right to use and occupy the spaces of the city without restriction.”

Let's go back to Google's bench, for
a moment

Now let's think again about
affordances

“The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill ...

I mean by it something that refers to both the environment and the animal in a way that no existing term does.”

What are the affordances of the
“smart city”?

XFORD
TREET W1
OF WESTMINSTER





82
LOMBARD

FRANCE
Economic crisis
Greece to get bailout
extension, according to
France minister

Surveillance mechanisms are
moving from passive to active

Tfl plans to make £322m by collecting data from passengers' mobiles via Tube Wi-Fi

Transport for London says it collects Wi-Fi connectivity data to "better understand journey patterns and improve services".

Wednesday





William Perrin

@willperrin

Follow



For the love of god - has the tech marketing industry no moral compass at all?



Piccadilly Circus lights facial detection system 'incredibly intrusive'

The revamped billboard will include "Minority Report" hidden cameras which will figure out people's age, gender and mood.

news.sky.com

déclarations mensongères
ou de dénonciations
calomnieuses via un
réseau

10:48



social. MINPOSTEL

10:48



Dear subscriber, you incur
6 months to 2 years
imprisonment, and 5 to 10
million fine if you publish
or spread on the social
media ,information that
you

11:18

Enter message



Comments

1



Verbleiben 35



Cyellus 78



Page 54



Abstract 0

 Vehicle Images

Abstract



Not even the illusion of choice

What does this mean for creativity
and radical new ideas?



2017

INTERNET SOCIETY GLOBAL INTERNET REPORT

Paths to Our Digital Future



We accept that our
every choice and
movement will be
datafied and our data
used by entities who
claim to own it and
over whom we have

**IoT makes ambient
surveillance by
entities we cannot
even observe, let
alone control, seem
so routine that our
resistance to it
seems futile**



"Oh to be
private,
alone,
submerged"

The IoT prevents us from ever
being alone and unobserved again

For politics

- Facial recognition
- Data-blobs
- Electronic kettling

So, what do we do about it?

Ask

How do we maintain our “informational right to the city”?

“An informational right to the city? Code, content, control and the urbanization of information”

Joe Shaw and Mark Graham, Oxford Internet Institute

Tony Benn's 5 Questions

What power have you got?

Where did you get it?

In whose interests do you use it?

To whom are you accountable?

How do we get rid of you?

Cities

- Don't be the dog
- What (real) problems are you trying to solve?
- What public interest goals guide you?
- How will you make sure *independent* oversight gets you to stick to them?
- How will you resist vendor-driven function creep + ever-increasing data collection?
- Do you have interoperability / open platforms?

Remember: Data analysis is *not* the same as asking people what they want and listening to what they say.

How one European smart city is giving power back to its citizens

After sleepwalking into privatisation of public spaces, city councils are waking up to the need for citizen-led smart cities



What can you and I do?

Design and operate based on the assumption that your systems and data WILL fall into the “wrong hands”.



David Jones @DavidJo52951945 · 16h

RT The UK can't keep going the way it is. All public services are overwhelmed & sooner or later the NHS, benefits & housing will collapse



The Observer

Home Office used charity data map to deport rough sleepers

Emails show that deal with Greater London Authority helped it target homeless EU nationals for removal



This means:

- Data minimisation
- Pseudonymisation
- Written procedures and transparent oversight for transfers
- Duty of ethical action

Write a list of things you would never do. Because it is possible that in the next year, you will do them. —Sarah Kendzior [1]

Our pledge

We, the undersigned, are employees of tech organizations and companies based in the United States. We are engineers, designers, business executives, and others whose jobs include managing or processing data about people. We are choosing to stand in solidarity with Muslim Americans, immigrants, and all people whose lives and livelihoods are threatened by the incoming administration's proposed data collection policies. We refuse to build a database of people based on their Constitutionally-protected religious beliefs. We refuse to facilitate mass deportations of people the government believes to be undesirable.

We have educated ourselves on the history of threats like these, and on the roles that technology and technologists played in carrying them out. We see how [IBM collaborated to digitize and streamline the Holocaust](#), contributing to the deaths of six million Jews and millions of others. We recall the [internment of Japanese Americans](#) during the Second World War. We recognize that [mass deportations](#) precipitated the very atrocity the word genocide was [created](#) to describe: the murder of 1.5 million Armenians in Turkey. We acknowledge that genocides are not merely a relic of the distant past—among others, [Tutsi Rwandans](#) and [Bosnian Muslims](#) have been victims in our lifetimes.

Think

Read

Write

Contribute

The Moral Character of Cryptographic Work*

Phillip Rogaway

Department of Computer Science
University of California, Davis, USA
rogaway@cs.ucdavis.edu

December 2015

(minor revisions March 2016)

Abstract. Cryptography rearranges power: it configures who can do what, from what. This makes cryptography an inherently *political* tool, and it confers on the field an intrinsically *moral* dimension. The Snowden revelations motivate a reassessment of the political and moral positioning of cryptography. They lead one to ask if our inability to effectively address mass surveillance constitutes a failure of our field. I believe that it does. I call for a community-wide effort to develop more effective means to resist mass surveillance. I plead for a reinvention of our disciplinary culture to attend not only to puzzles and math, but, also, to the societal implications of our work.

IEEE puts out a first draft guide for how tech can achieve ethical AI design

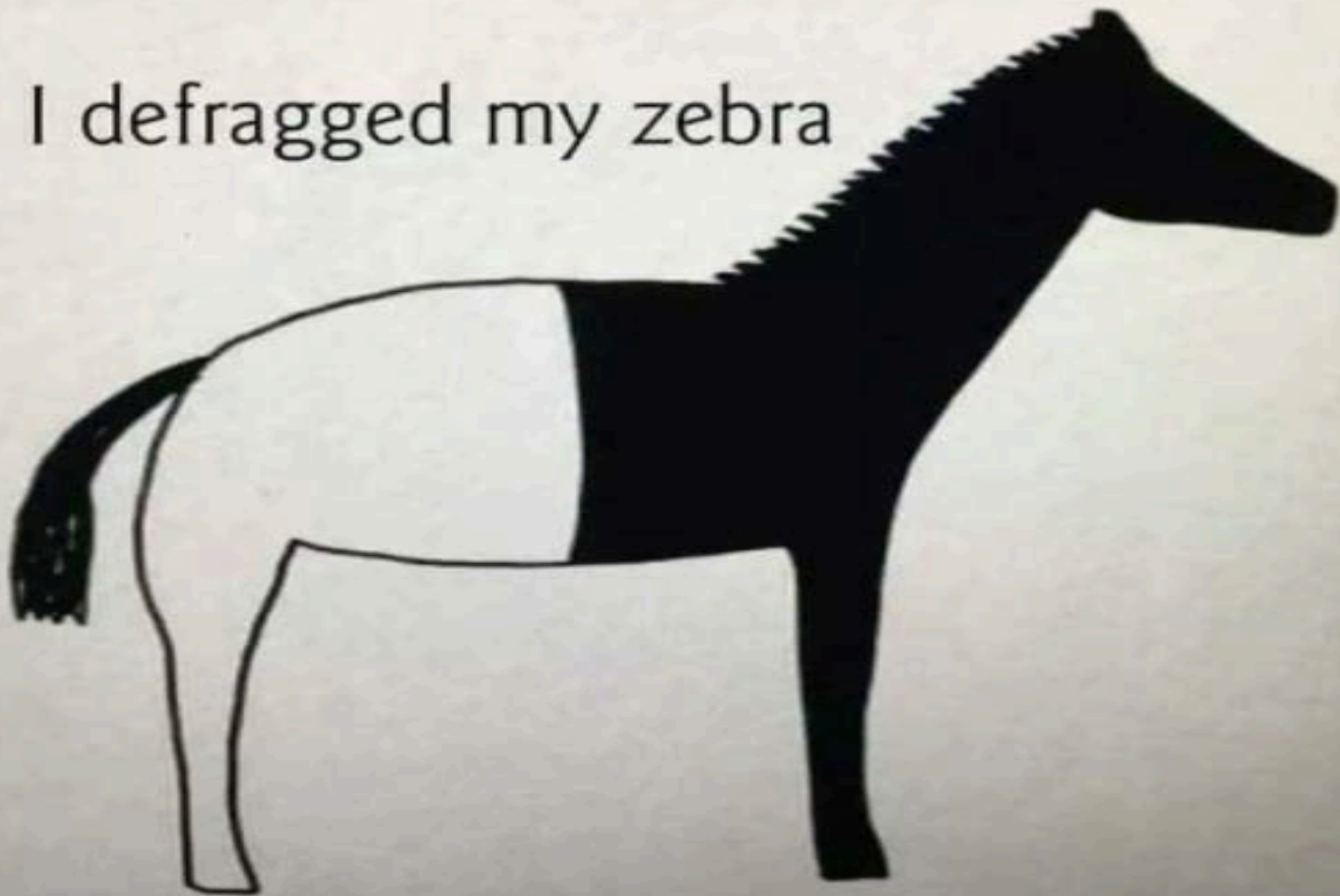
Posted Dec 13, 2016 by [Natasha Lomas \(@riptari\)](#)



ADVERTISEMENT

And also, let's laugh a little.

I defragged my zebra



Above all, **know** that there are others like you, who want to make/keep the Internet as a force for good.

Seek them out.

Support them when you can.



"You don't start a revolution by fighting the state but by presenting the solutions."

Corbusier

@maria farrell