BigData
UN Global Working Group

4TH INTERNATIONAL CONFERENCE ON

BIG DATA

for Official Statistics

8-10 NOVEMBER 2017

BOGOTA, COLOMBIA

Trust, Data, Development, and Democracy

Emmanuel Letouzé, PhD
Director, Data-Pop Alliance
Visiting Scholar, MIT Media Lab
Program Director, OPAL project

GOBIERNO DE COLOMBIA MINTIC DANE INFORMACIÓN ESTRATÉGICA

60th Anniversary of the National Department of Statistics of Colombia (DANE)

Official Statistics in the Big Data Era

Emmanuel Letouzé
PhD Candidate, UC Berkeley
Fellow, Harvard Humanitarian Initiative
Non-Resident Adviser, International Peace Institute
eletouze@berkeley.edu

Biblioteca Luis Angel Arango
Bogotá
October 28th, 2013

1. Big Data for Official Statistics is not a technical-technological issue; it's a political issue—about knowledge, power, and democracy

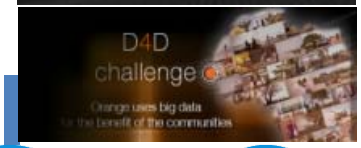
2. Engage with citizens, communities, donors—'revive' and reinvent poverty measurement (for ex.) in the 21st century

3. reach out, collaborate, drawn lessons—innovate

Africa's Statistical Tragedy

Shantayanan Devarajan

Arab Region NSOs Call For Data Revolution



DATA FOR CLIMATE ACTION

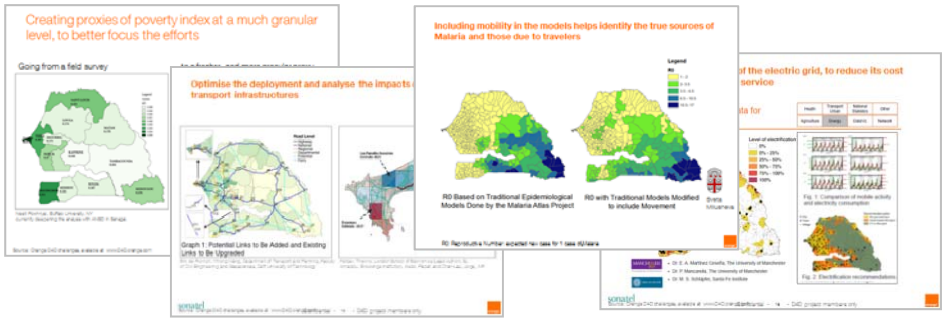
BigData

OPAL

bring the code to the data

2012-17

>2017?



MIT Media Lab ✓
@medialab

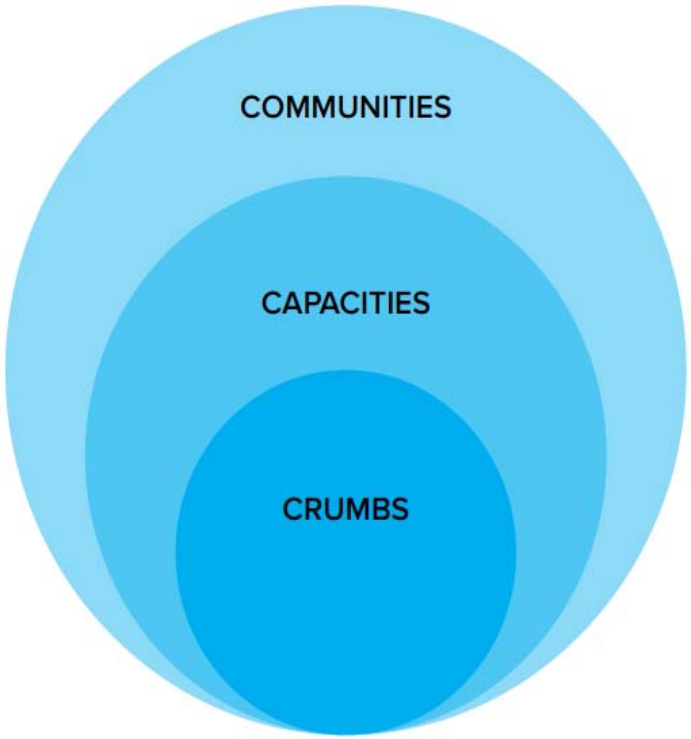
Following

"Big data [is] an ecosystem," says @ManuLetouze of @datapopalliance, a global coalition that includes the @medialab

Solving the data conundrum: How to leverage tech and 'big data' for impact
From combing phone subscription records to estimate population density and poverty levels, to analyzing tweets to predict a pending food crisis, emerging tec...
devex.com

RETWEETS 16 LIKES 20

12:08 PM - 18 Jul 2016



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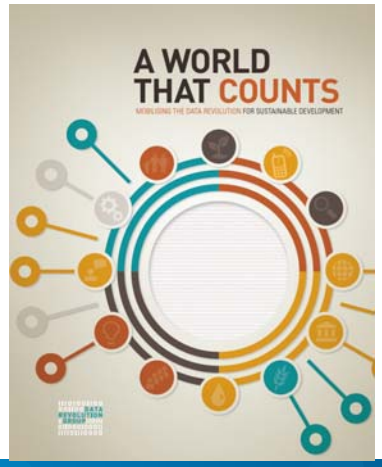
SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

The world's most valuable resource is no longer oil, but data

The Economist

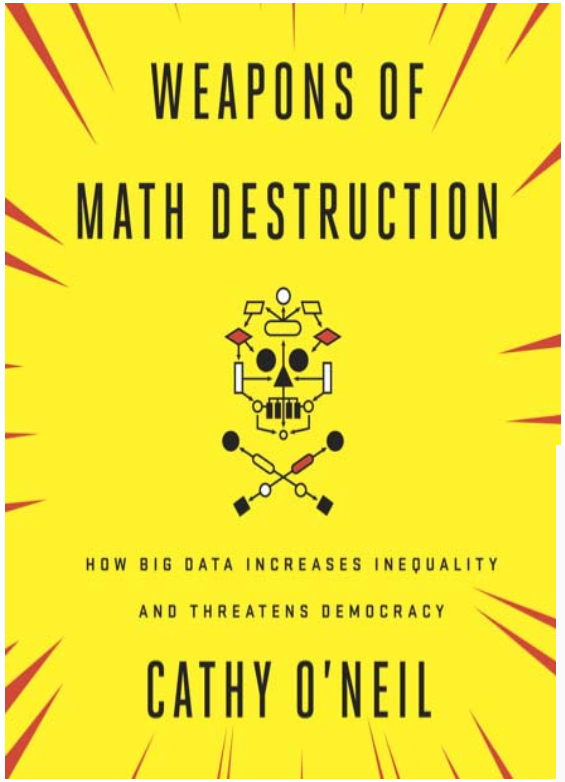


GLOBAL PARTNERSHIP
FOR SUSTAINABLE DEVELOPMENT DATA

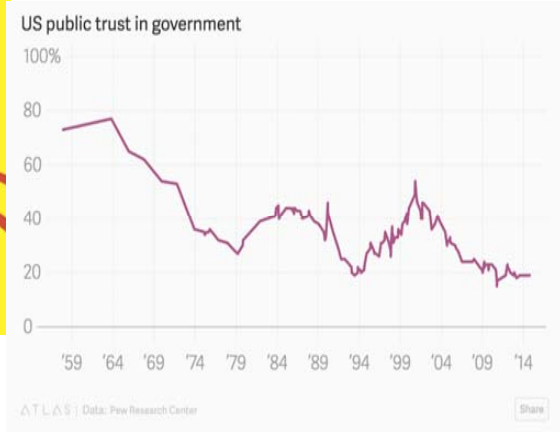
United Nations
WORLD DATA FORUM

(2014)

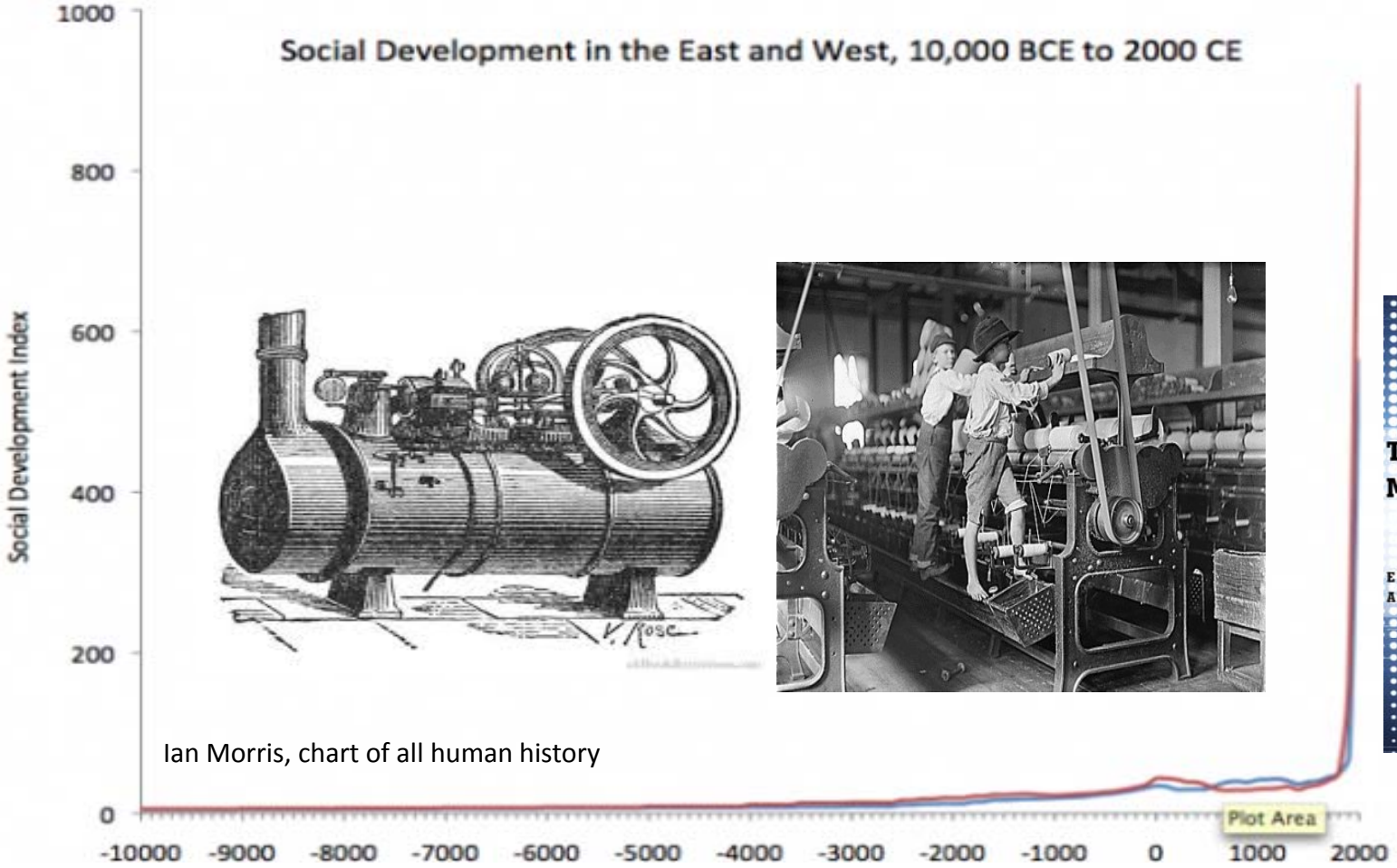
(2015)


WEAPONS OF
MATH DESTRUCTION
HOW BIG DATA INCREASES INEQUALITY
AND THREATENS DEMOCRACY
CATHY O'NEIL

Trust me
i'm a data scientist


US public trust in government
100%
80
60
40
20
0
'59
'64
'69
'74
'79
'84
'89
'94
'99
'04
'09
'14
Data: Pew Research Center
Share

What Facebook Did to American Democracy
And why it was so hard to see it coming
ALEXIS C. MADRIGAL | OCT 12, 2017 | TECHNOLOGY



Ian Morris, chart of all human history

Hosted for Microsoft by Wordpress. © 2011-2016 Microsoft

How machine learning can amplify or remove gender stereotypes

AUGUST 6, 2016

by adamkalai *tags:* gender bias, word embeddings

TLDR: It's easier to remove gender biases from machine learning algorithms than from people.

Saving children, one algorithm at a time

By Kathleen Hickey Jul 26, 2016

The Oklahoma Department of Human Services (DHS) is the latest government entity to take advantage of predictive analytics from non-profit Eckerd Kids to prevent child welfare tragedies.

The New York Times

OP-ED CONTRIBUTOR

Make Algorithms Accountable

MATT CHASE

By JULIA ANGWIN
AUGUST 1, 2016

CYBERSECURITY

Saving Big Data from Itself

A three-step plan for using data right in an age of government overreach

By Alex "Sandy" Pentland

For the first few decades of its existence, the National Security Agency was a quiet department with one primary job: keeping an eye on the Soviet Union. Its enemy was well defined and monolithic. Its principal tools were phone taps, spy planes and hidden microphones.

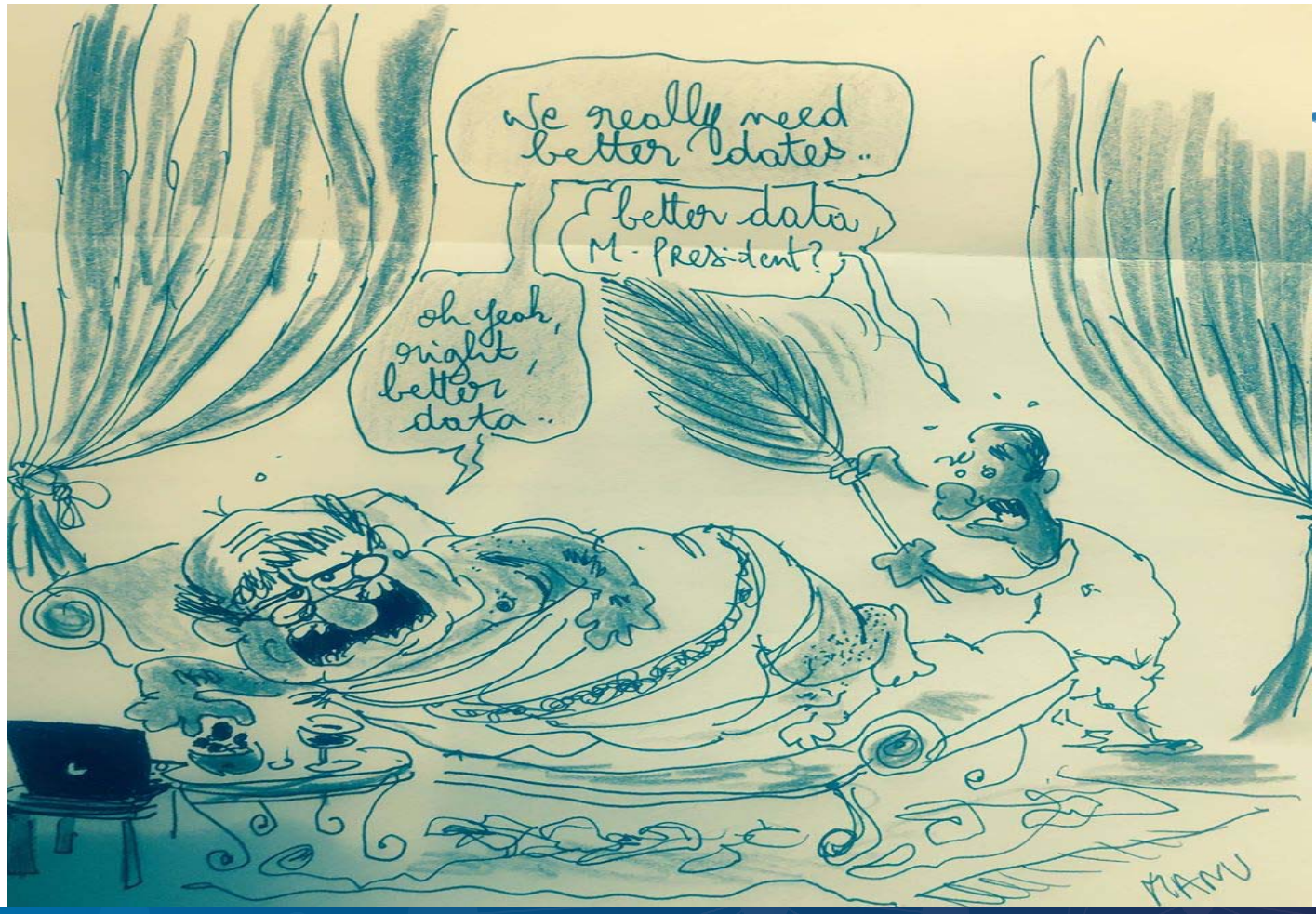
After the attacks of September 11, all of that changed. The NSA's chief enemy became a diffuse network of individual terrorists. Anyone in the world could be a legiti-

CULTURE | SOCIOLOGY

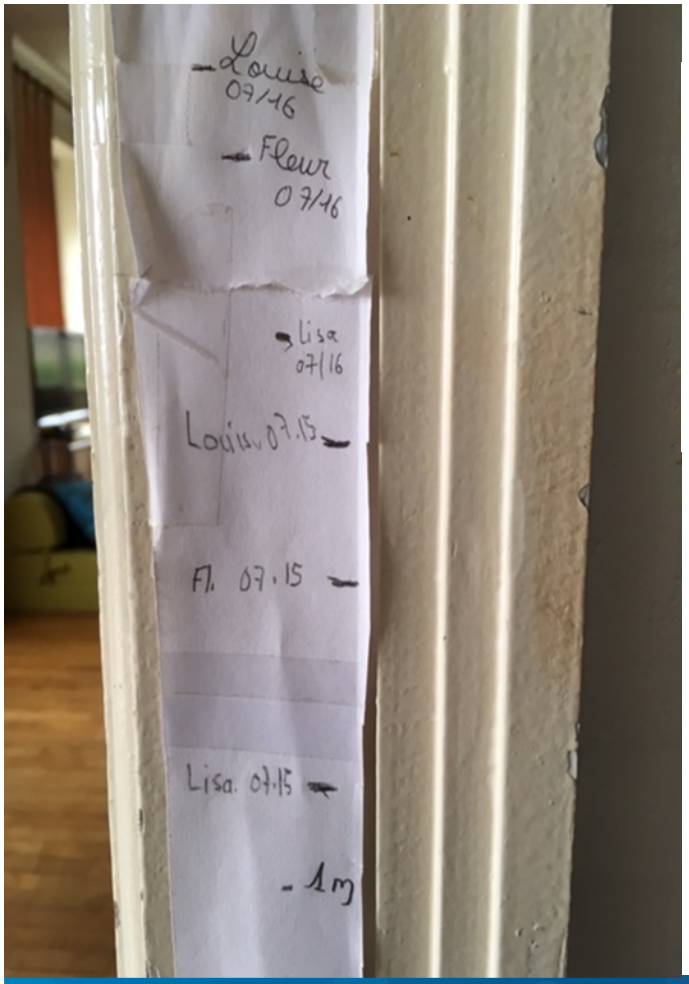
To Rescue Democracy, Go Outside

Real spaces, not digital ones, will fix our politics.

BY ALEX PENTLAND
ILLUSTRATION BY JAMES YANG
OCTOBER 13, 2016


We really need better dates..
better data M-President?
oh yeah, right, better data..

Measurement ⟷ Development?


Louise
07/16
Fleur
07/16
Lisa
07/16
Louise 07.15
Fl. 07.15
Lisa. 07.15
- 1m

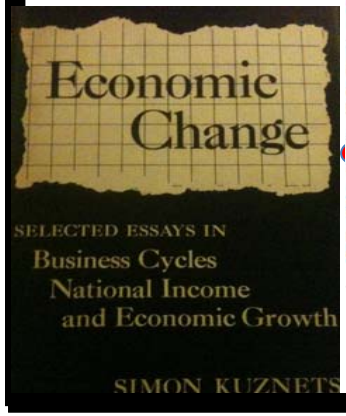
Louise, July 2012
MANU

Fleur, July 2012
MANU

MANU.

Measurement ⟷ Development?

Level of Development



HUMAN DEVELOPMENT INDEX RANKS 2014

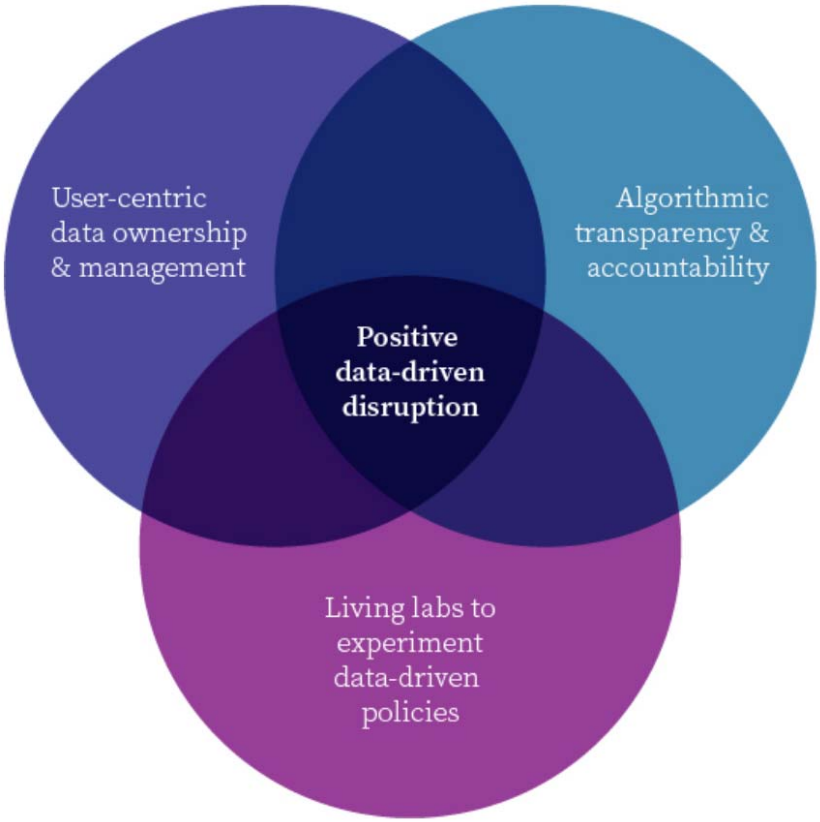
Top 5 Countries

1. Norway
2. Australia
3. Switzerland
4. Netherlands
5. United States

Bottom 5 Countries

1. Sierra Leone
2. Chad
3. Central African Republic
4. DR Congo
5. Niger

Quality of Measurement



**The Tyranny of Data?
The Bright and Dark Sides of
Data-Driven Decision-Making for
Social Good**

Bruno Lepri, Jacopo Staiano, David Sangokoya, Emmanuel Letouzé and Nuria Oliver

"…towards a data-enabled model of democratic governance running against tyrants and autocrats, and for the people."…?

Who should we trust to manage our data?

By Alex Pentland
Oct 23 2015

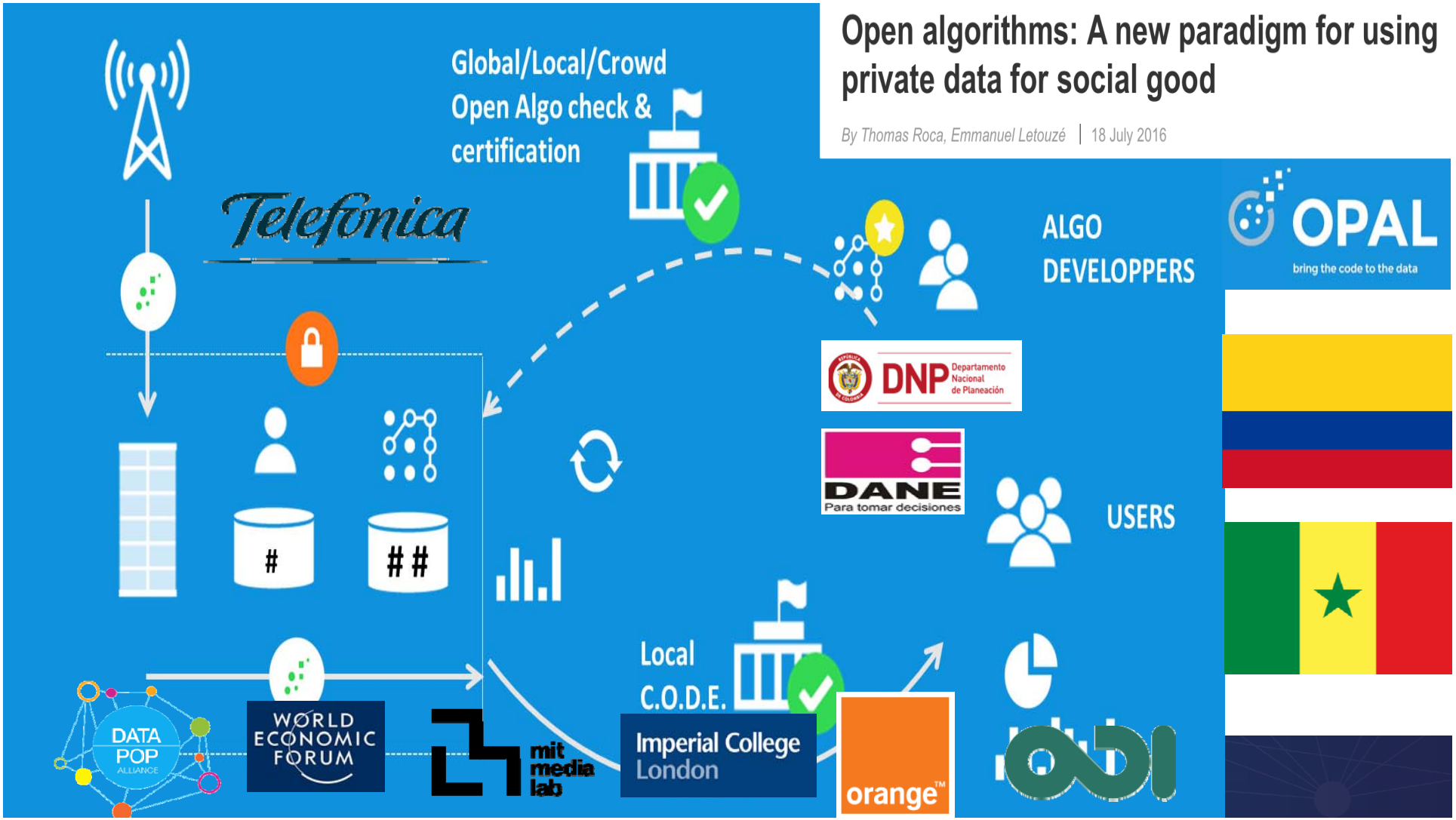
f 392 202 in 19

WORLD ECONOMIC FORUM

It is time for legislators and judiciary to stop relying on traditional bureaucracies to enforce data rules and rights, and use this new technology to ensure that data stewardship meets the high standard of *always* following the rules and rights specified by our laws. The essential factor that led toward democratisation was broad ownership of the resource, which made it difficult to exert autocratic control. The same seems true for data: to avoid autocratic control, citizens must have effective, direct control of data about themselves.

Open algorithms: A new paradigm for using private data for social good

By Thomas Roca, Emmanuel Letouzé | 18 July 2016



DATA-POP ALLIANCE
WHITE PAPER SERIES

Beyond Data Literacy:
Reinventing Community Engagement and Empowerment in the Age of Data

October 2015

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UN Global Working Group

Building Literacy for the Data Generation

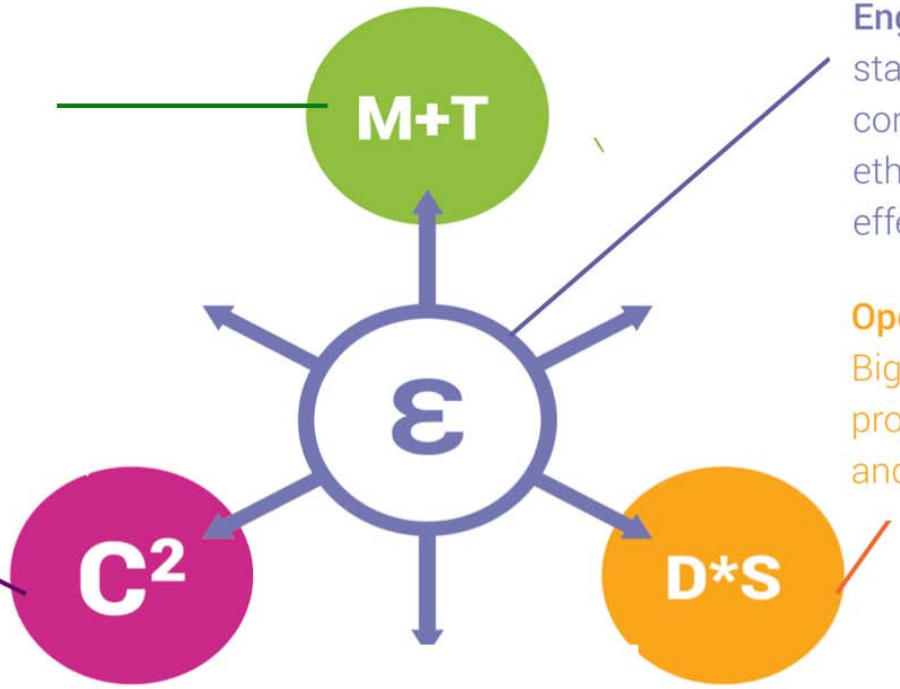
December 18, 2015

A unique opportunity exists to develop data literacy education for children born into a world shaped by big data.

Testing building blocks of ‘Big Data literacy’

Applying Big Data methods and tools to yield insights for specific development problems

Understanding key Big Data ideas in order to translate development problems into specific data objectives



Engaging key stakeholders and communities through ethical practices and effective story-telling

Operationalizing Big Data as inclusive projects, partnerships and policies

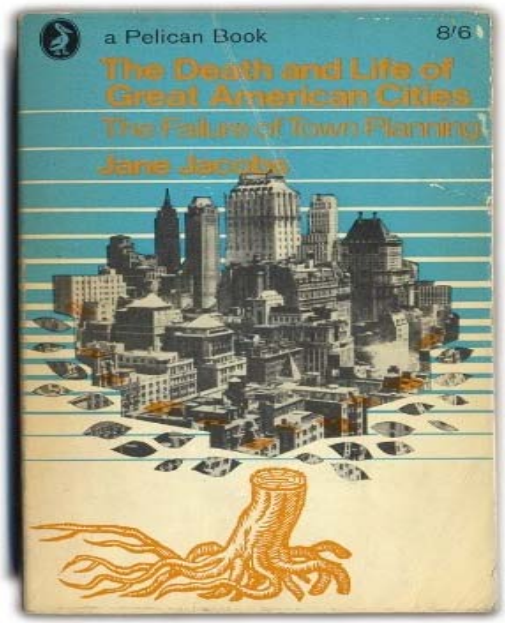
Inside Out: to understand crime mechanisms look at urban fabric first

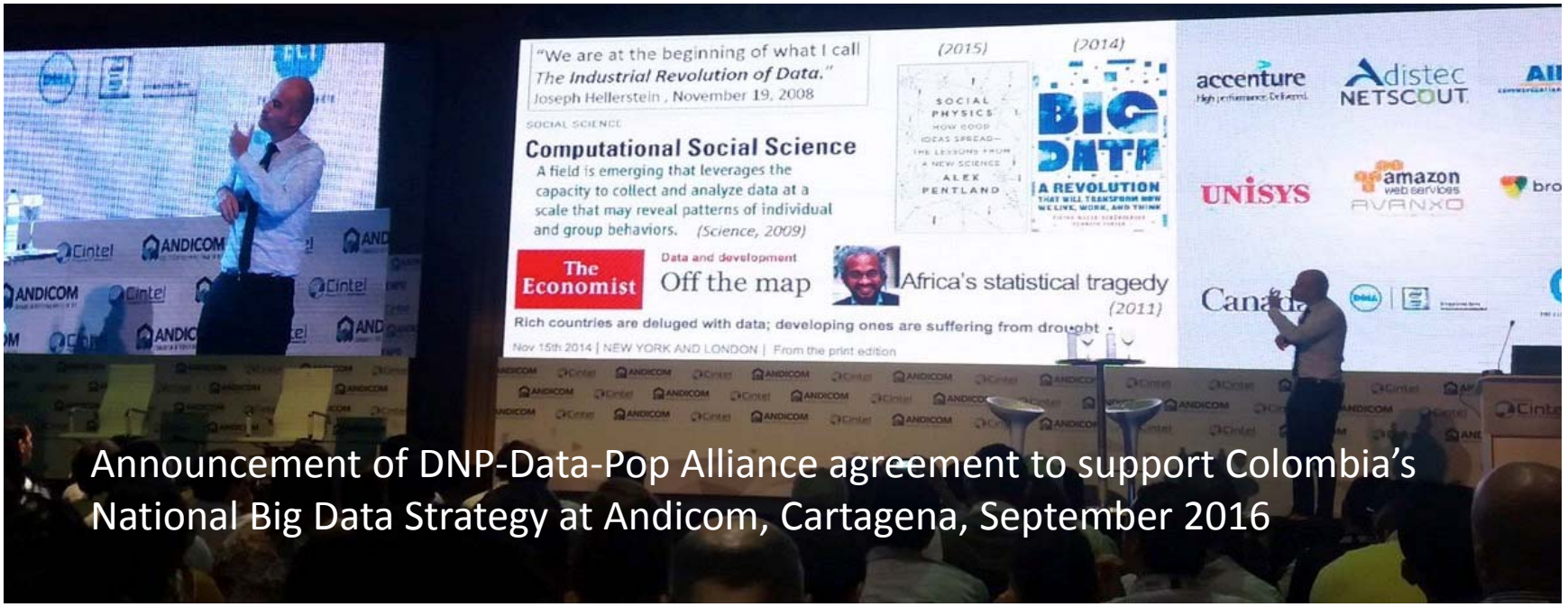
Marco De Nadai*[1,2], Emmanuel Letouzé†[4], Marta C. González‡[3] and Bruno Lepri§[2]

[1]University of Trento. [2]FBK. [3]MIT. [4]Data–Pop Alliance

Next: Research program with IDB

- In partnership with the city governments of Bogotá, Cartagena, Cali, Medellin, and Santa Marta
- Key (tentative) research questions identified at Media Lab workshop in March 2016:
  - *How will the implementation of the peace agreement affect people's trust in the police?*
  - *How does trust between and within groups and towards institutions affect*
  - *How / why are police records biased?*





Announcement of DNP-Data-Pop Alliance agreement to support Colombia's National Big Data Strategy at Andicom, Cartagena, September 2016

THE UNITED NATIONS GLOBAL
WORKING GROUP ON BIG DATA

Thank you

eletouze@mit.edu

#UNBIGDATA2017

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