

**RIUNIONE DEI PRESIDENTI DELLE COMMISSIONI COMPETENTI IN
MATERIA DI OCCUPAZIONE, RICERCA E INNOVAZIONE**

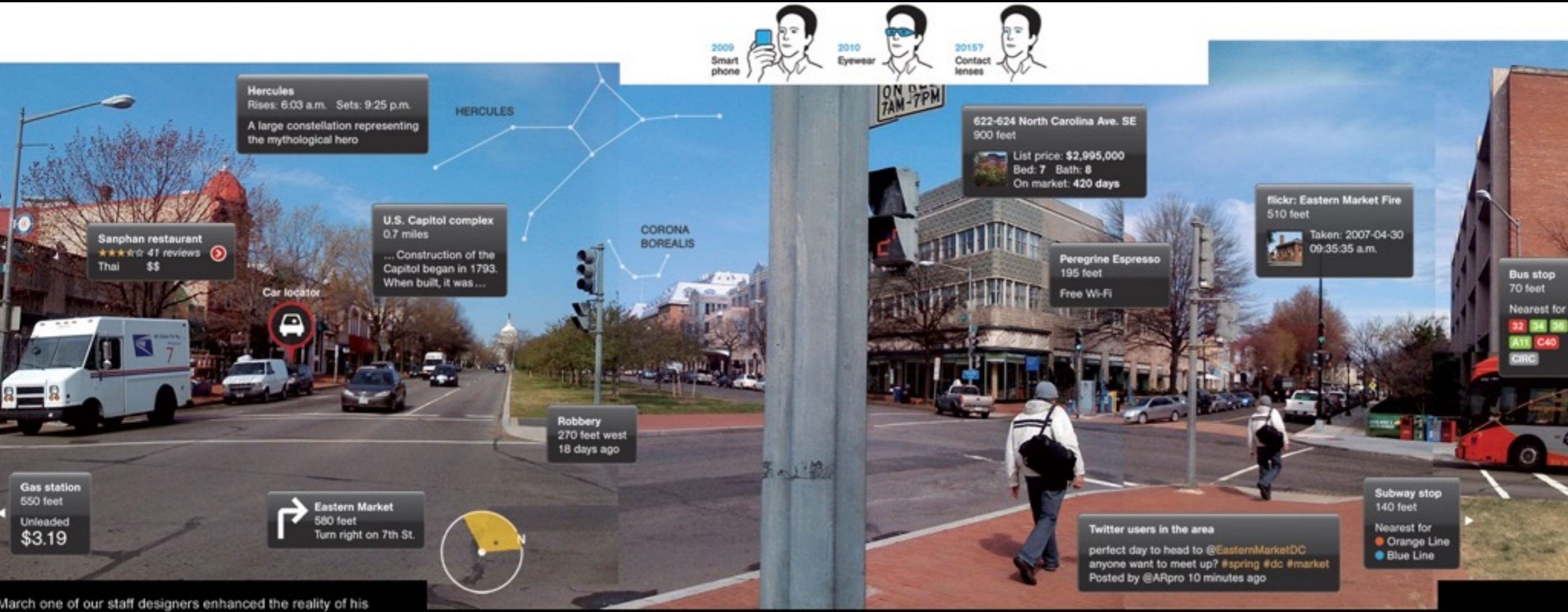
**Roma, 20- 21 novembre 2014
Camera dei deputati - Palazzo Montecitorio**

data-driven economy

Lorenzo Benussi

why data?

we live in a world of data (scio-technical hyper connected complex system)



March one of our staff designers enhanced the reality of his Washington, D.C., neighborhood. Smart phone applications (apps) added layers of information to what he saw—called out in this composite of five photos, each taken with his phone.

UP AND AWAY Point your phone at the sky and find stars hidden by daylight. Aim at a tourist spot and see its history plus info for visitors. For an augmented-reality check, tap into crime stats.

REAL DEALS Various apps can steer you to the cheapest gas around, mass-transit options, good food, and Wi-Fi spots. You can also learn the price of that town house that's up for sale.

STREET PALS The Tweeps Around app tells if tweeters are near. Flickr displays area photos by members (Eastern Market, above). In the works: an app to match faces to social-network profiles.

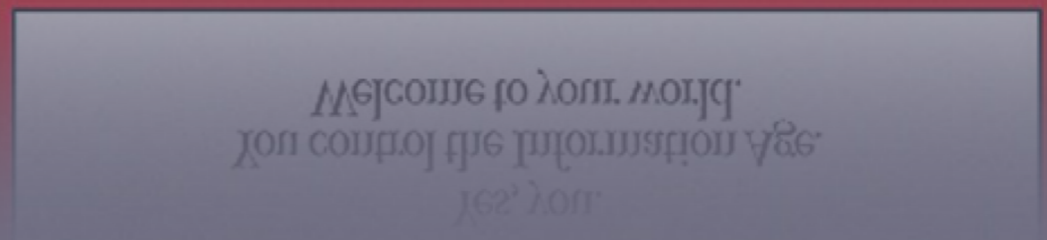
This composite of five photos, each taken with his phone, (apps) added layers of information to what he saw—called out in this Washington, D.C., neighborhood. Smart phone applications (apps) added layers of information to what he saw—called out in this Washington, D.C., neighborhood. Smart phone applications (apps) added layers of information to what he saw—called out in this Washington, D.C., neighborhood.

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You are data (the “iWorld”)



**They use data
(mapping the
digital world)**



...data is value



- Data
- Information
- Knowledge

the largest global IPO ever



\$25 billion

How many types of data?



Big Data

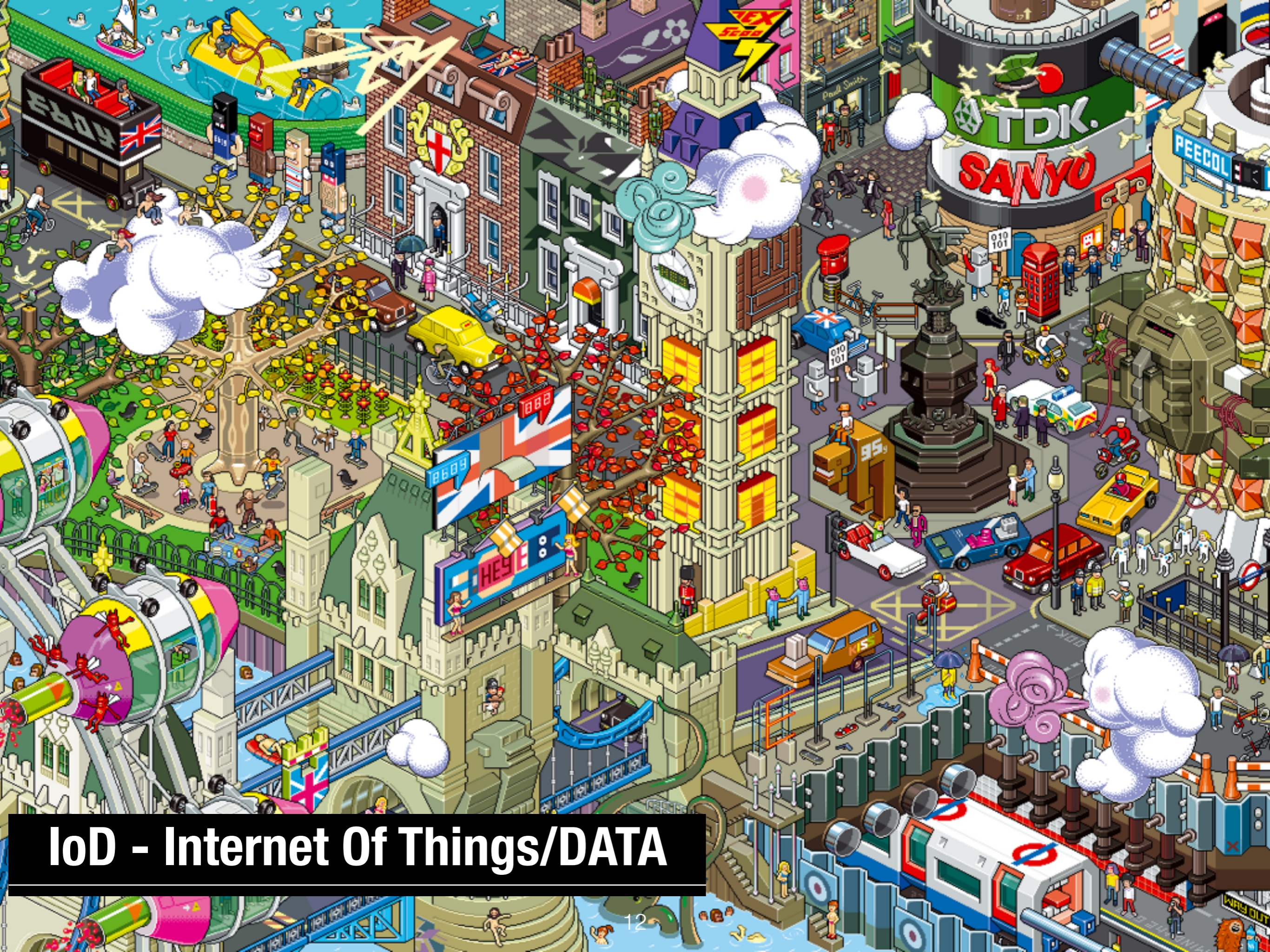
Volume Variety Velocity

Personal data - the quantified self





Social (media) Data

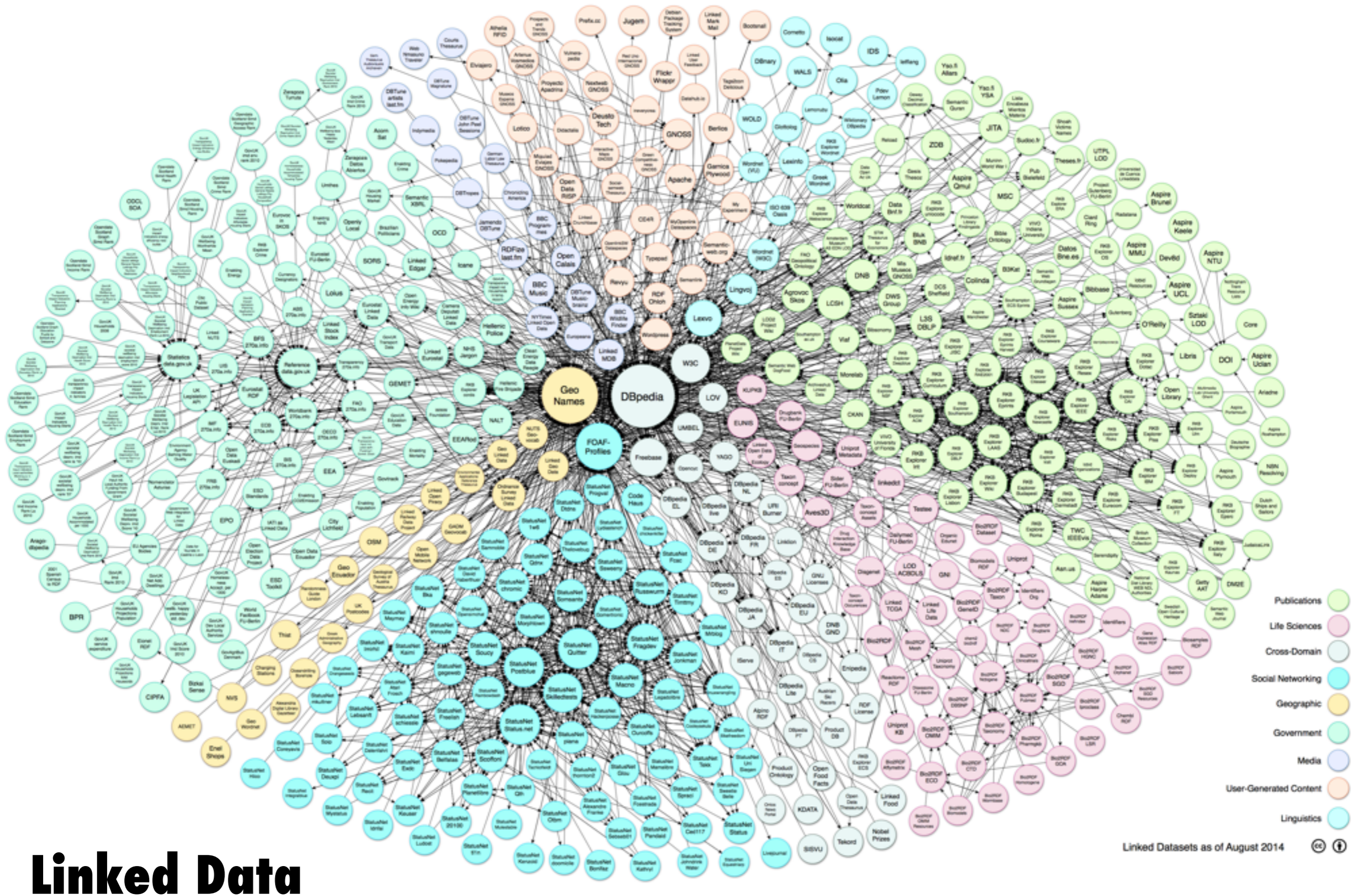


IoD - Internet Of Things/DATA

OPEN DATA = Free Open Usable



With linked data, when you have some of it, you can find other, related, data. (by Tim Berners-Lee)



Linked Data

Why data are so important?

The value of (open/big) data

Open Data

- ✓ **\$3 trillion Approximate potential annual value** enabled by **open data** in seven “domains”
- ✓ 35 Hours per year could be saved by commuters from schedule changes based on open data
- ✓ 100,000+ Medical, health, and fitness apps for smartphones
- ✓ 50%+ Consumer share of potential value of open data

Ref.: McKinsey (2013) Open data: Unlocking innovation and performance with liquid information

Big data

- ✓ 30 billion pieces of content shared on Facebook every month (2010)
- ✓ \$300 billion potential annual value to US health care - more than X 2 total annual health care spending in Spain.
- ✓ \$600 billion potential annual consumer surplus from using personal location data globally.
- ✓ **140.000-190.000** more **deep analytical talent** position and **1.5 million** more **data-savvy managers** needed to take full advantage of big data in the USA

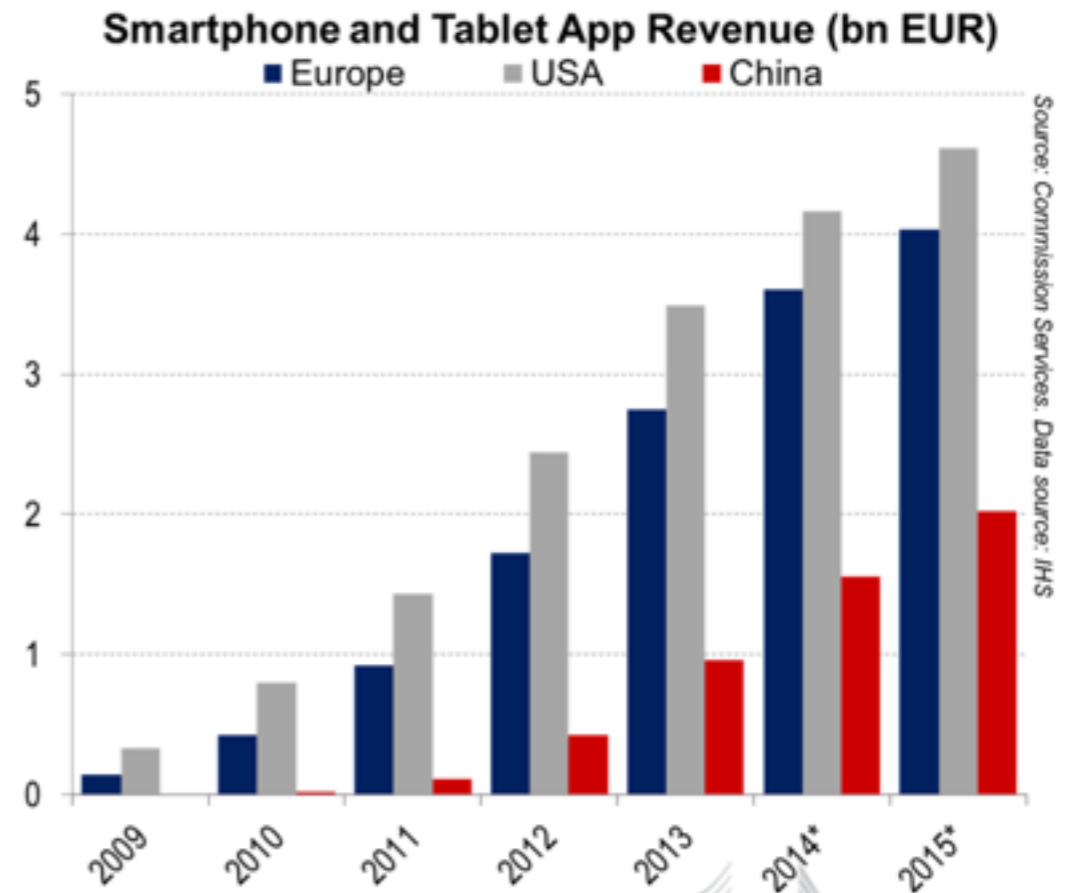
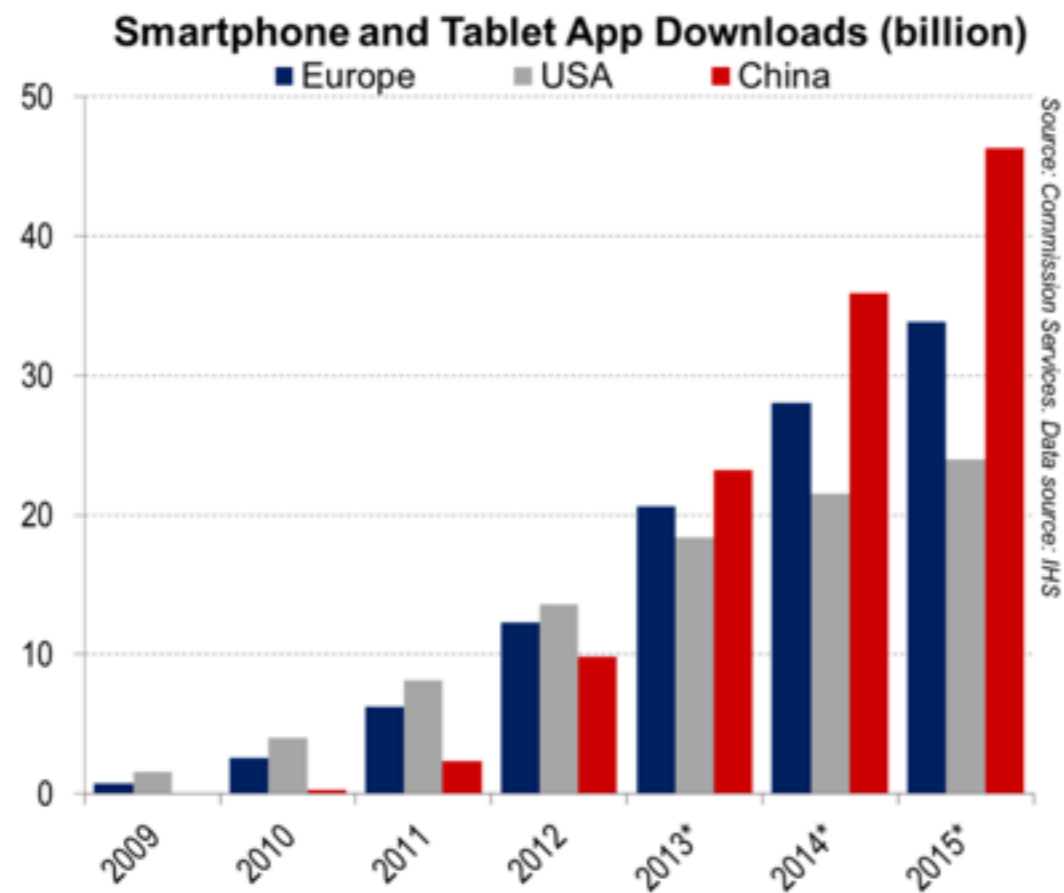
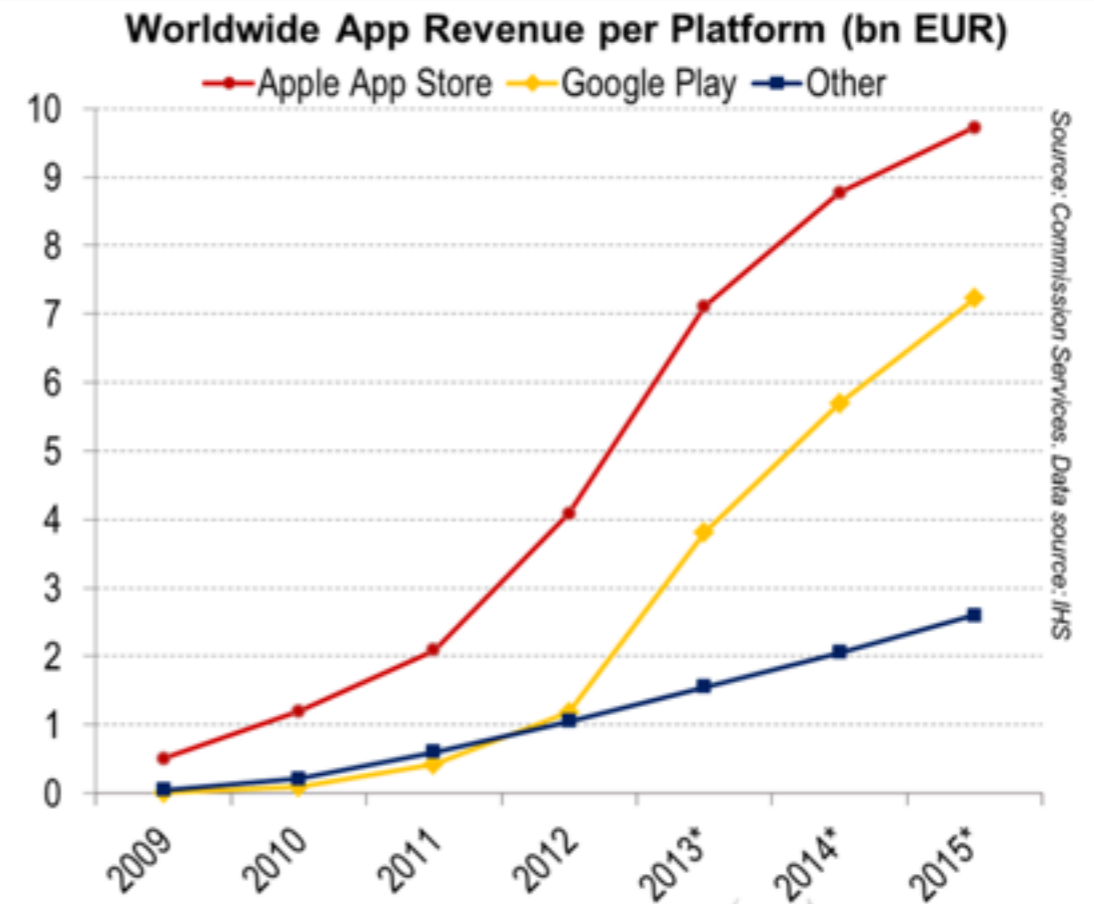
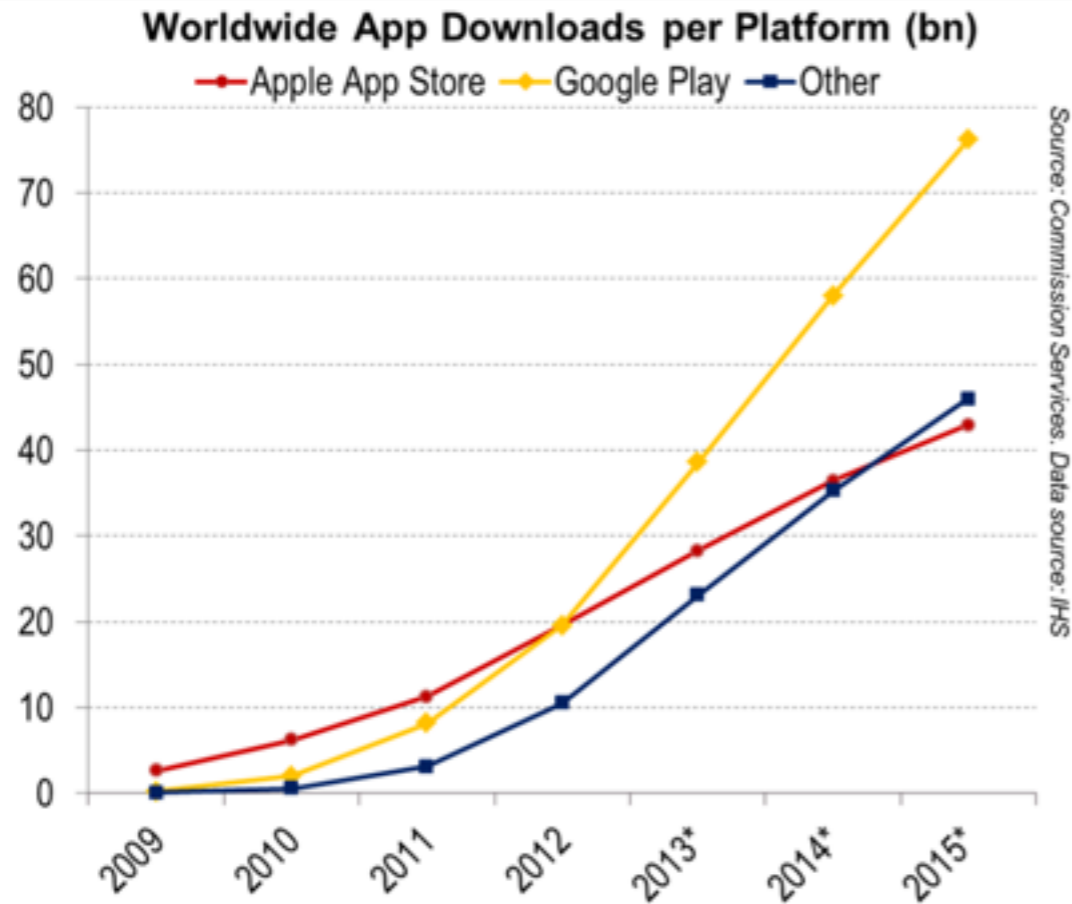
Ref.: McKinsey (2011) Big Data: The next frontier of innovation, competition and productivity

digital data change the market

Data As A Service



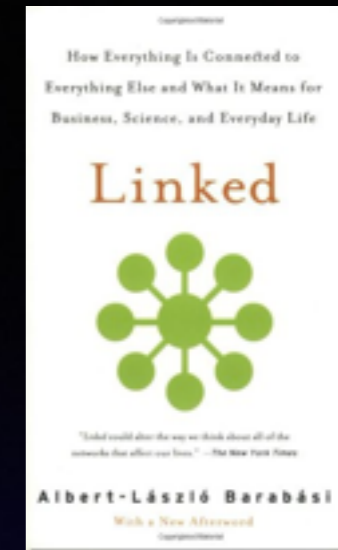
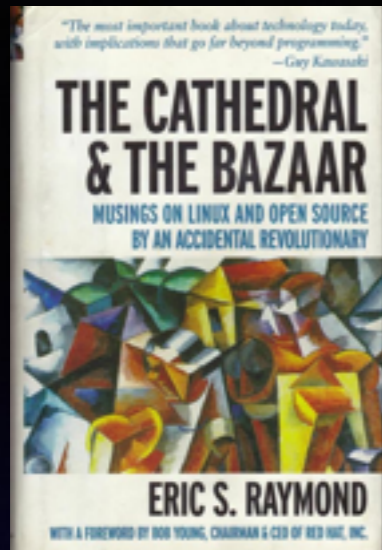
The mobile market: solid growth in EU



digital data change innovation models



When I say that innovation is being democratized, I mean that users of products and services—both firms and individual consumers—are increasingly able to **innovate for themselves.**
(DEMOCRATIZING INNOVATION,
Eric Von Hippel, MIT)



The Cathedral The Bazaar



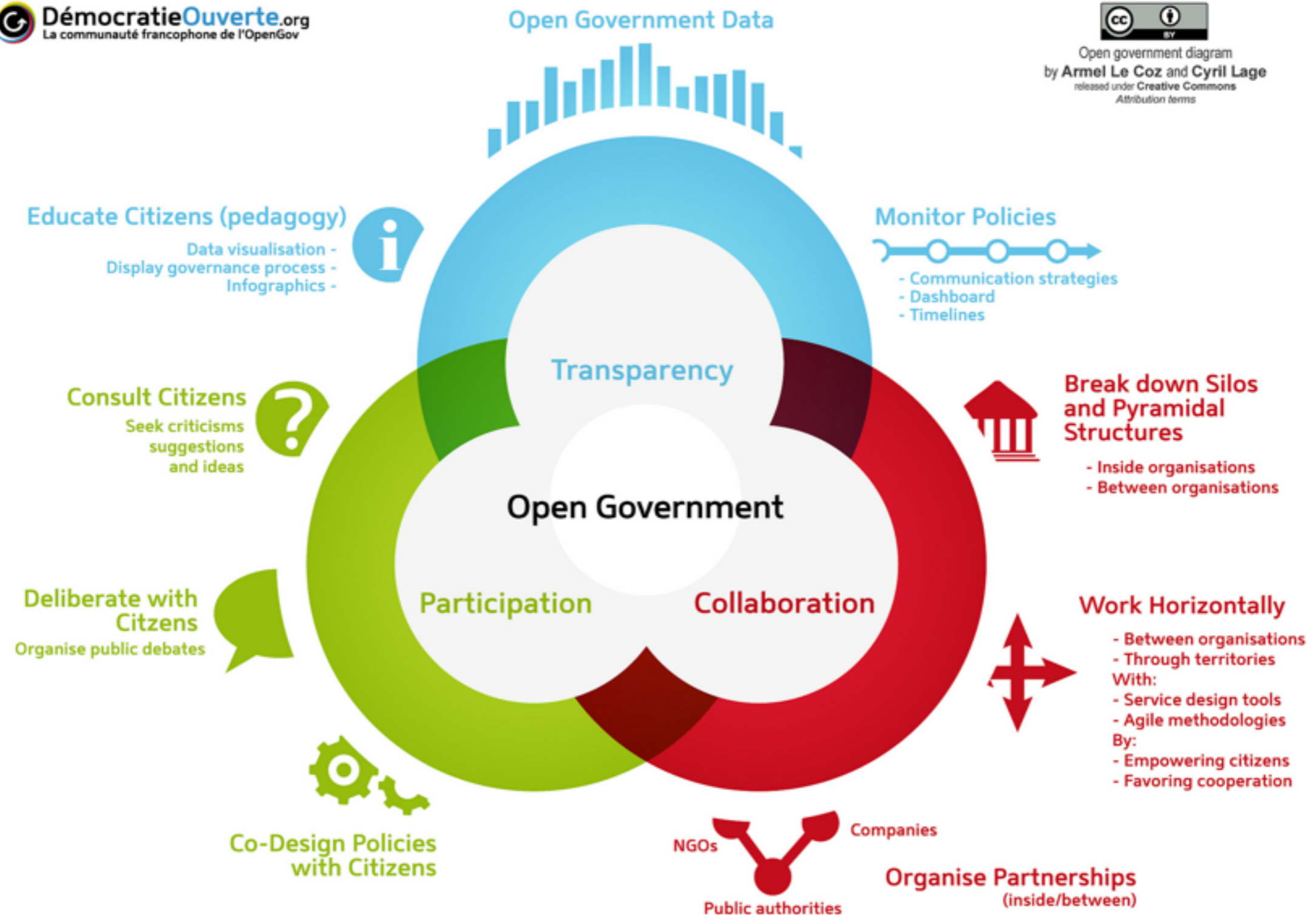


digital data shape cities

digital data change politics



Digital Data open (the) government



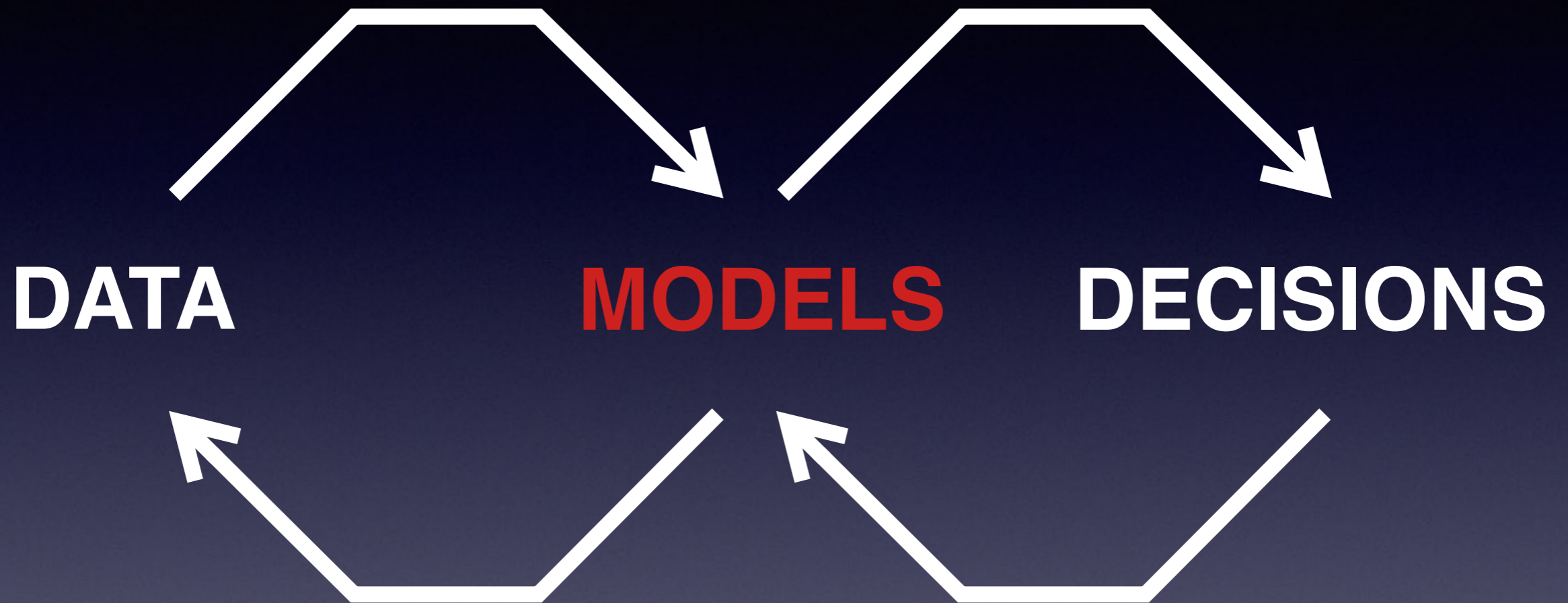
**...but how can I improve
governance and decision
making with data?**



conoscere per deliberare
(we must know in order to decide)

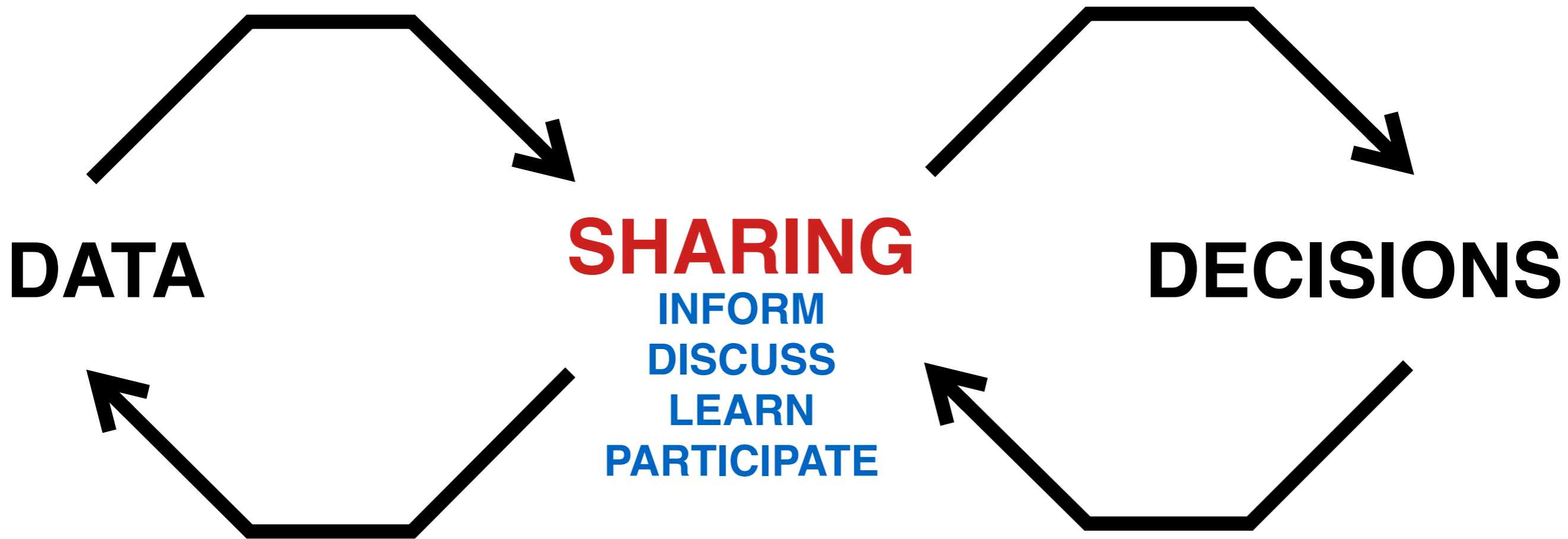
(L. Einaudi, politician and economist)

(BIG) DATA LIFECYCLE



ITERATIVE LEARNING

(OPEN) DATA DECISION MAKING



ITERATIVE OPEN PROCESS

**...and how can I promote
a thriving data drive economy?**

Capacity and community building

1. A European **Public-Private Partnership** on Data

2. Digital **entrepreneurship** and open data incubator

3. Developing a **skills** base

4. Data market monitoring tool

5. Identification of sectoral **priorities** for R&I

Framework Conditions

1. **Availability** of data and **interoperability** (Fostering Open Data policies, Data handling tools and methods, Supporting new open standards)

2. Enabling **infrastructure** for a data-driven economy (Cloud computing, E-infrastructures and High Performance Computing, Networks/Broadband/5G, Internet of Things (IoT), Public Data Infrastructures)

3. **Regulatory issues** (Personal data protection and consumer protection, Data-mining, Security)

Ref: EU COM(2014) 442 Towards a thriving data-driven economy

three steps on the road to the data-driven economy

1. Digital ecosystems (network, systems, data) = promote **competition**
2. Lean approach to policy making (timing, bottom-up, trial and error) = promote **deregulation**
3. Participation and complexity (government as a platform, hyper connected socio-technical complex systems) = promote **engagement** & demand-driven **innovation**

A black and white illustration of a man with a beard and glasses sitting in a chair in a room. The room contains a window, a lamp, and some furniture. The text "Personal Data Space" is overlaid in large white letters across the center of the image.

Personal Data Space

Data is at the centre of the future knowledge economy and society

Ref: EU COM(2014) 442 Towards a thriving data-driven economy

data driven economy

1. data **technologies** = dealing with complexity (HD and SW)
2. data **market** = public and private partnership (scope and scale)
3. data **policy** = data driven and demand driven approach to policy making (monitoring,
4. data **value** = to tackle emerging societal challenges (health, environment, mobility - social innovation)

democratizing innovation and innovating democracy

Thank you

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