Trust and Big Data

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A BIG DATA WORLD...

With smaller and smaller devices

- **The Digital revolution** -> data-driven economy -> new characteristics -> new opportunities and new challenges
- **Data analytics** -> key opportunities for value generation -> new implications for private and public sector
- **Device miniaturization** + data ubiquity -> more pervasive digital environment -> Threat to data protection, privacy and overall trust in the network
The 4Vs+ of Big Data: Volume, Velocity, Variety, Veracity ....
Big Data Analytics...
Beyond Business intelligence (BI)

Traditional (BI) Analytics

- Descriptive analytics
- Diagnosis analytics

Big Data Analytics

- Predictive analytics
- Data Science

Scope

Datasets

- Limited data sets and types of data
- Cleansed data
- Relatively simple models

- Large scale data sets
- More types of data
- Raw and unstructured data
- Complex models

Methodology

- **Causation**: what happened, and why?

- **Correlation**: new insight, accurate answers and precise predictions
Big Data: New opportunities

The transformational power of big data

Big data becomes more: timely, holistic, accessible, relevant, authoritative...

- Accurate measurement of demand and expectations
  --> better service and product design

- Models and predictive analytics for climate, health care, urbanization, transport, finance, economy etc...
  --> evidence based policies
Big Data: new challenges...

- Data ownership
- Data quality
- Data access
- Public awareness and perception
- Governance and legal/regulatory framework
- Data Ethics

...
TRUST EMPOWERS

*Trust is the highest form of human motivation. It brings out the very best in people*” -Stephen R. Covey

- Certainty, confidence and predictability -> expands the benefits of the digital economy
- Trust is key to the development of smart and human-centric technologies -> for innovation focused on empowerment
- Borderless nature of the network -> building trust is an inherently global priority
TRUST IN BIG DATA: Oxymoron?

Maximize vs. minimize

- "Big data without Trust" -> massive spread of analytics without particular controls for the protection of personal data.
- Big data may not always be smart data.
- Personal data retain their value as long as they are perceived a scarce and difficult to obtain resource.
- Not in the interest of industry and individuals to dilute this value.
- De-commoditization.

Source: Thomas Hassel
SMART DESIGN, SMART DEVICES

“Humanizing” our technology

- Design thinking is holistic, interdisciplinary, integrative and innovative, across the entire technology lifecycle
- A mindset, approach, set of tools applied in order to achieve human-centered innovation
- Creation of sustainable and meaningful value within the contexts of business and society at large.
IDENTITY FOR BUILDING TRUST & PRIVACY

Context is still king

Source:
ITU Internet Report 2006: digital.life
THE POWER OF THE HOLISTIC APPROACH

Where the technical is part of a greater whole
THE POWER OF GLOBAL COOPERATION

Dialogue is vital

- Global principles for big data, digital identity and trust require concerted public-private sector dialogue
- Legal and policy standardization - further harmonization at the global level
- Within ITU-T:
  - SG3: Economic and policy issues
  - SG13: Future Networks
  - SG17: Security
  - SG20: IoT and its applications including smart cities and communities
- The human being at center stage of innovation and design
Trust and in Big Data

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Thank you!
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