



Aalto University  
School of Business

# Open data in city service development and predictive analytics

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## Bio excerpts

**Professor of information systems at Aalto University School of Business**

[https://people.aalto.fi/index.html#matti\\_rossi](https://people.aalto.fi/index.html#matti_rossi)

**Winner of the Millennium Distinction Award 2013 for Open Source and Data Research**

**One year visits to Georgia State Univ., RSM Erasmus and Claremont Graduate College**

**Minority owner and former board member of MetaCase Consulting ([www.metacase.com](http://www.metacase.com))**



## Openness and freedom by Anders Chydenius

**Anders Chydenius**, a Finnish enlightenment thinker and politician (1729-1803) was a defender of open economy and open governance in the 18th century.

He played a crucial role in creating the world's first Freedom of Information Act in the Diet of Sweden-Finland in 1766.

**According to Chydenius, economics exists for the benefit of "the little people" - and not the other way round.**



Source: [http://www.chydenius.net/historia/lyhyesti\\_vuodet/e\\_lyhyesti.asp](http://www.chydenius.net/historia/lyhyesti_vuodet/e_lyhyesti.asp)

## Open Data

### Some commonly applied definitions

- **Wikipd:** *“The idea that certain data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control”*
- **Open Knowledge Foundation:** *“A piece of content or data is open if anyone is free to use, reuse, and redistribute it — subject only, at most, to the requirement to attribute and/or share-alike.”*



## Openness

### 1. Technical openness

- Interfaces and standards

### 2. Legal openness

- Contracts, copyright, privacy, data protection, national security etc

### 3. Commercial openness

- Price of access and service design

### 4. Societal openness

- Transparency of society

› (Lindman, Rossi, Tuunainen. 2013. Open data research agenda, HICSS,2013)



## Open Data as a tool for transparency: Helsinki Region Infoshare

**Helsinki and the surrounding area are pioneers in opening data for reuse**

**Helsinki has a public API for city council decision making process, called Open Ahjo (Forge)**

**A hackathon held here produced an open data application called BlindSquare that is location based and helps blind people find their way in the city**

**<http://blindsquare.com>**



## Citizen participation

### Low barrier of entry two-way communication and information sharing platforms are needed to help

- Citizens to have their voice heard
- Representatives to listen to issues
- Ad-hoc groups to organize

### Example: D-CENT project

- digital tools for social movements, civic innovators and civil society groups
- See more: <https://forumvirium.fi/en/project-areas/new-forms-of-media/d-cent>

## Open Information Production brings Transparency and Interoperability to Software Systems and Healthcare

### Prevents Vendor-lock-in

- Open standards and Application Interfaces
- Open collaboration between stakeholders and use cases

### Improves Transparency

- To own healthcare service production
- To own information management and software systems

### Supports Quality Control

- Own internal activity (patient services or medical device maintenance)
- Service providers (e.g. software or logistics)
- External Benchmarking (e.g. international productivity benchmarking)

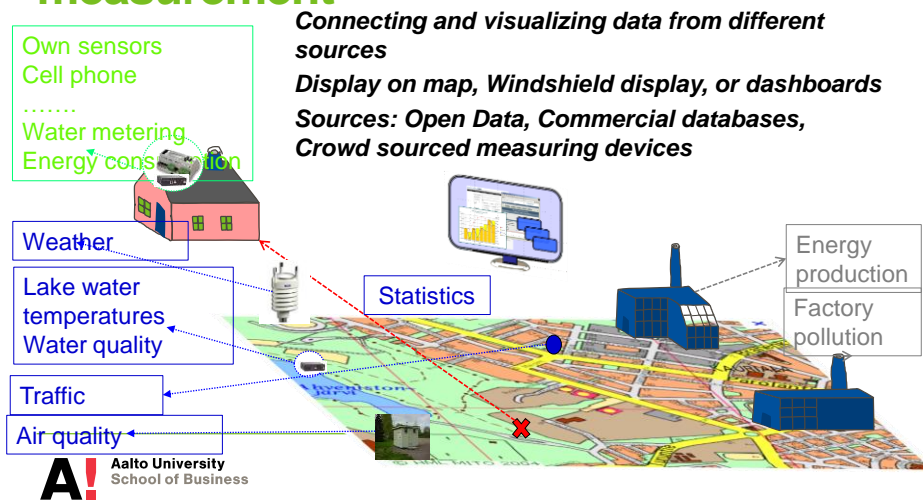
## Openness of healthcare information systems

### Radical solutions proposed

- Use of existing open source systems, creation on new systems (hackatons)
- User ownership of data (e.g. MyData)
- Self-healthcare
- Virtual healthcare
- “Mobile” healthcare
- Robots in healthcare



## What kind of networks are emerging: crowdsourced environmental impact measurement



Source: Synchron Tech Oy white paper



## Summary

**Open data gaining momentum, but little commercial activity**  
**Cities can have radical new services based on open data**  
**Hybrids of open and closed data are probably where most of the action will be**



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