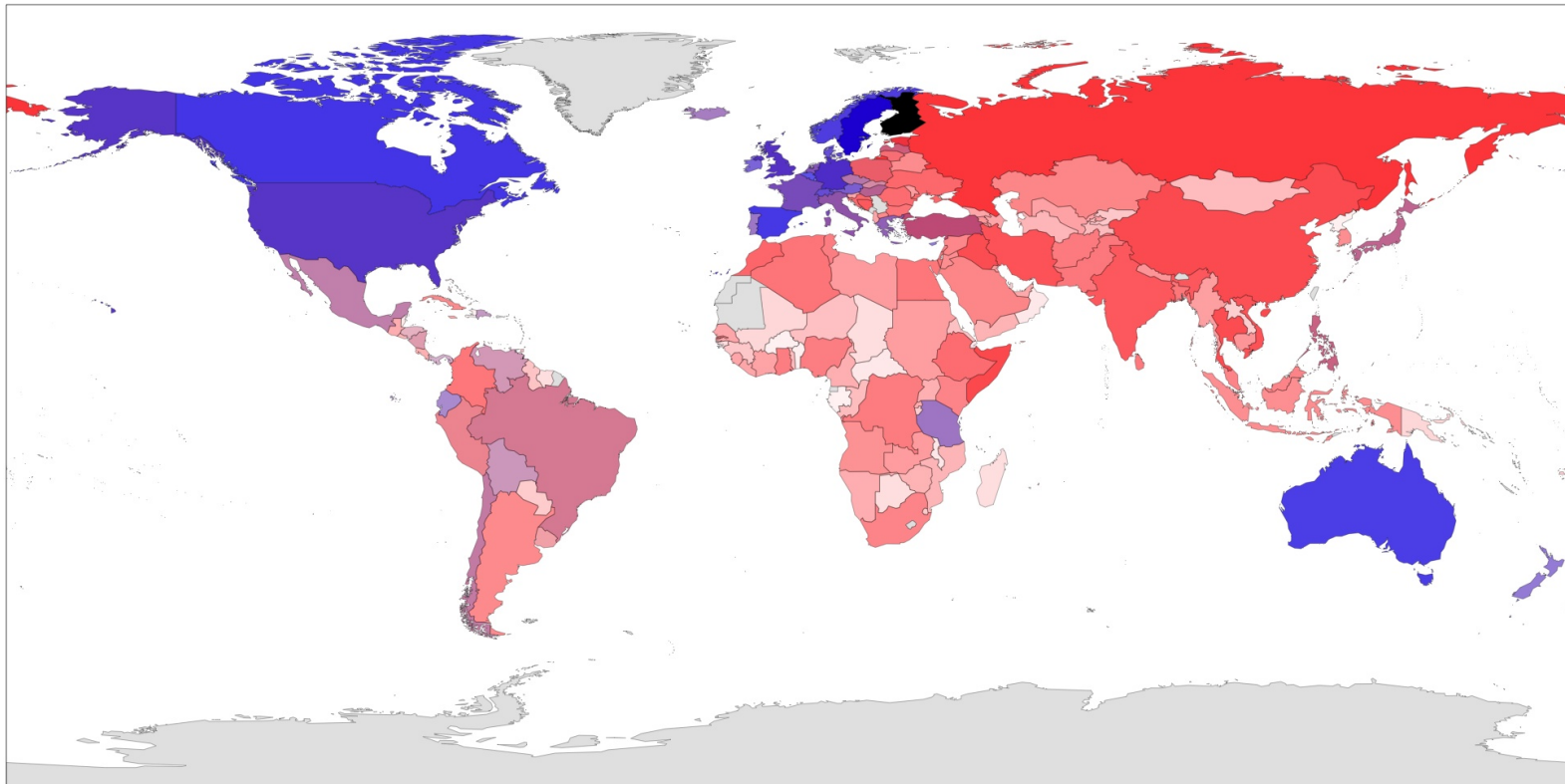


Open Analytics for Parliamentary Data in Finland

Leo Lahti, D.Sc. (Tech.) / B.Sc. (Pol.Sci)
Open Legislative Data Conference. Paris, July 6, 2012.



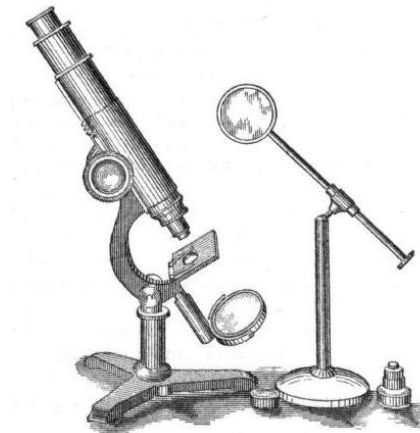


Lack of tools is forming a key bottleneck
for data access & parliamentary monitoring efforts



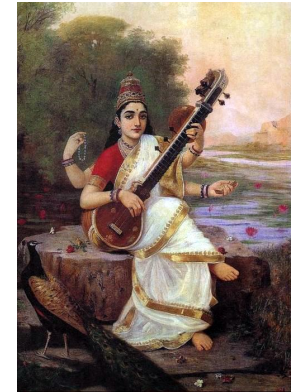
HS.fi

Design of flexible research & analysis tools
will have a central role
in realizing the full potential
of the new information resources.



Turning Data into Knowledge

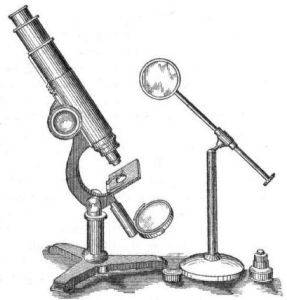
Integrating data across multiple sources can increase its value, reliability and applicability



Wisdom, Action

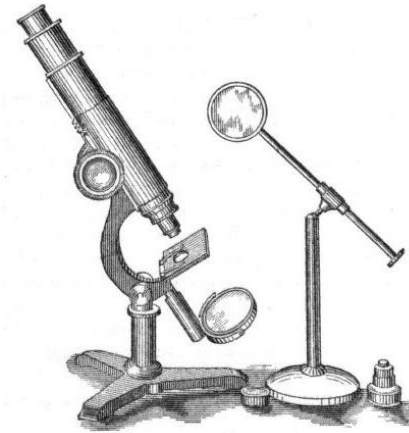
Knowledge, Understanding

Information, Facts



Observations, Data

Open government data is opening up new opportunities for research



Bringing in tools from other data-rich research fields
Common data formats / analytical challenges
Emphasis on transparency & reproducibility

Attracting new target groups
(researchers/citizen scientists/organizations/officials/...)

Louhos repository for open government data analytics in Finland:

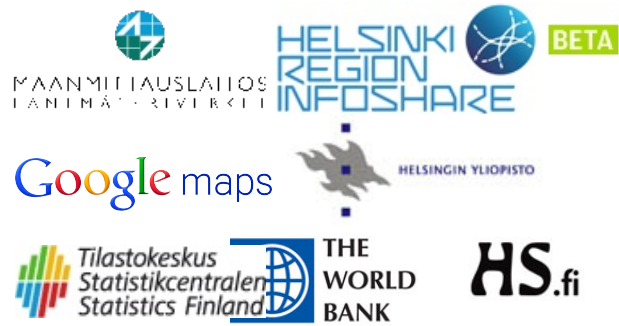
- 1) Develop and collect source code: programmatic access to hundreds of Finnish data resources
- 2) Apply new research tools to monitor decision-making processes
- 3) Analysis blog to support research, citizen science, outreach, data journalism, transparency etc.

louhos.github.com/en

General-purpose software libraries as flexible research tools



Open Data



Open Tools

louhos.github.com/en

Bits

Business ■ Innovation ■ Technology ■ Society

January 8, 2009, 1:52 PM

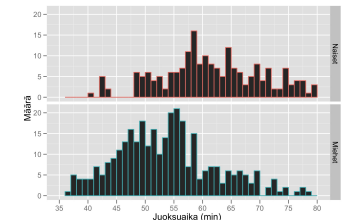
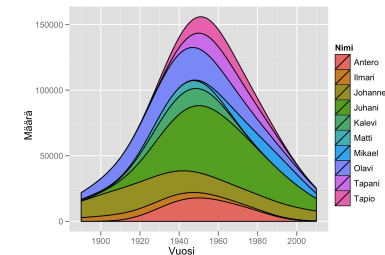
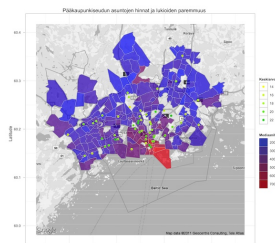
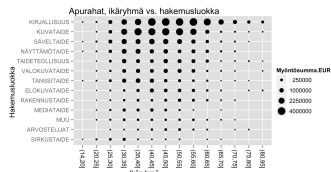
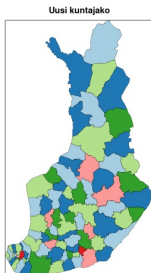
R You Ready for R?

By ASHLEE VANCE



soRvi - comprehensive R Library for Open Data in Finland

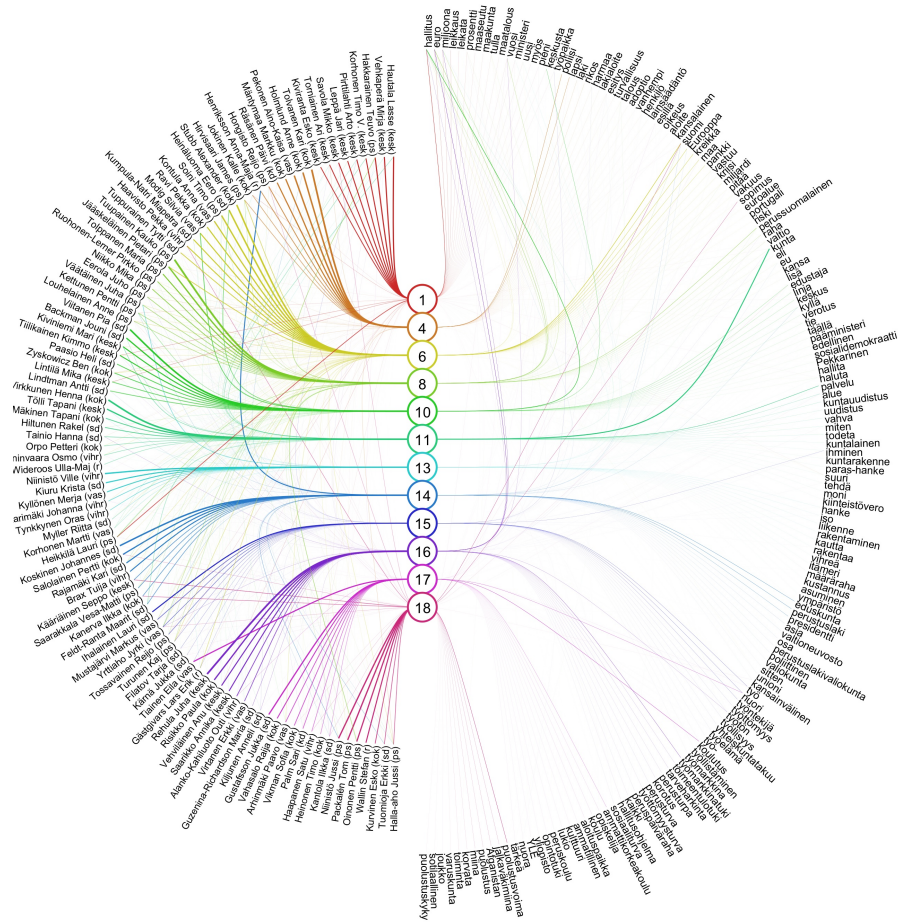
"turning machine":
seamless integration of open data, algorithms and applications



Example: Non-parametric Latent Dirichlet allocation (topic model) to identify underlying factors from multinomial count data across diverse document collections

Debate topics in the Finnish parliament:

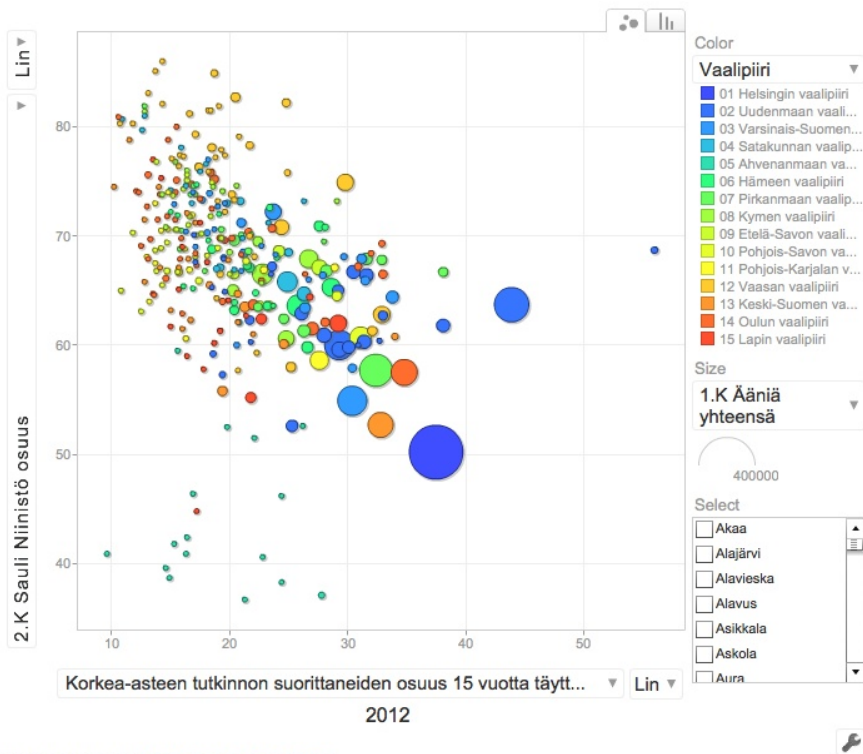
MPs vs. Topics vs. Words



Data: Helsingin Sanomat

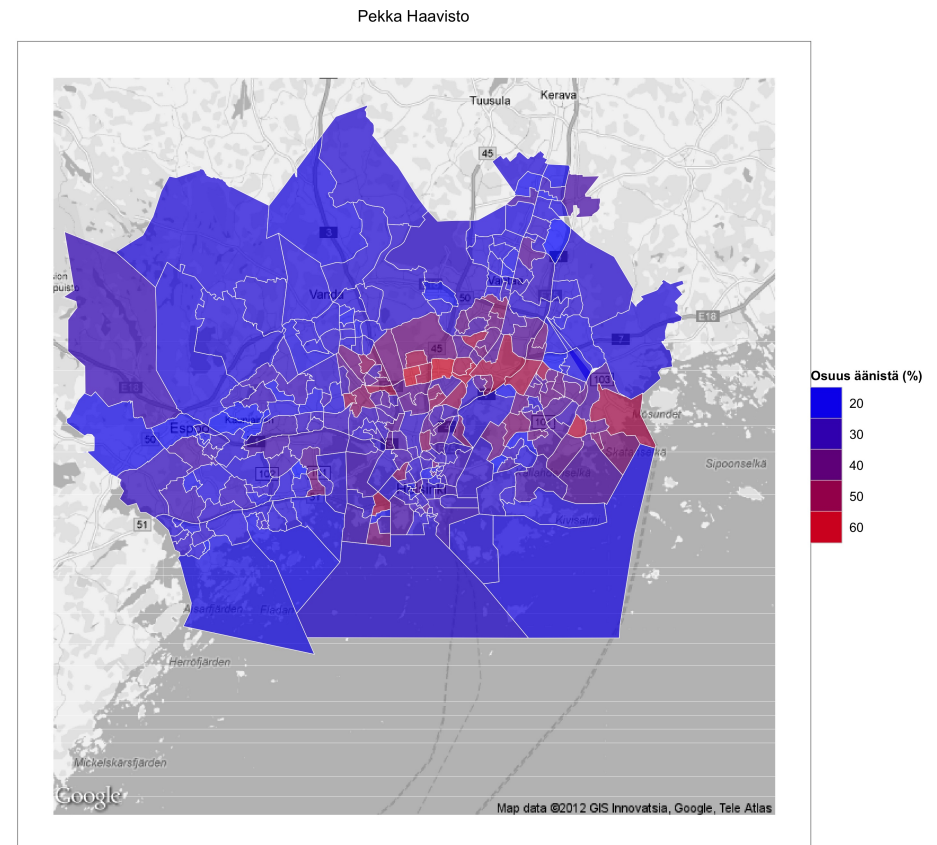
Example: presidential elections

Popularity of presidential candidates by socio-economical factors and geographic regions



Data: tab • Chart ID: MotionChartID5aad7ceed8ac
R version 2.14.1 (2011-12-22) • googleVis-0.2.13 • Google Terms of Use • Data Policy

Data: Helsingin Sanomat
Helsingin Kaupungin Kiinteistövirasto

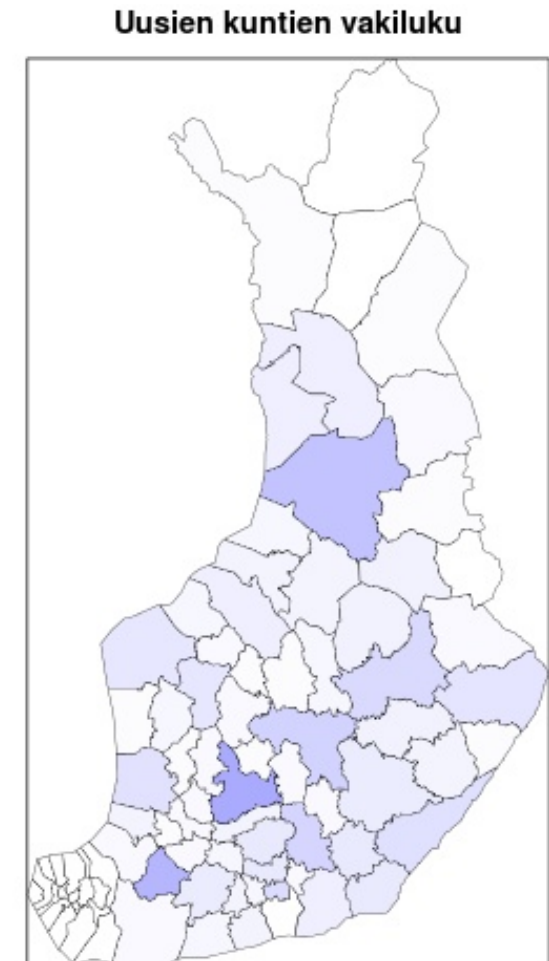
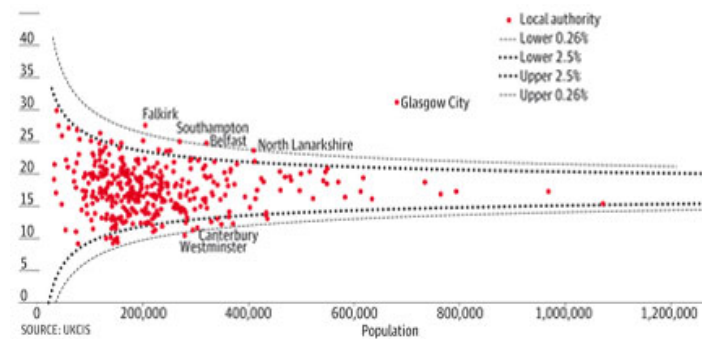
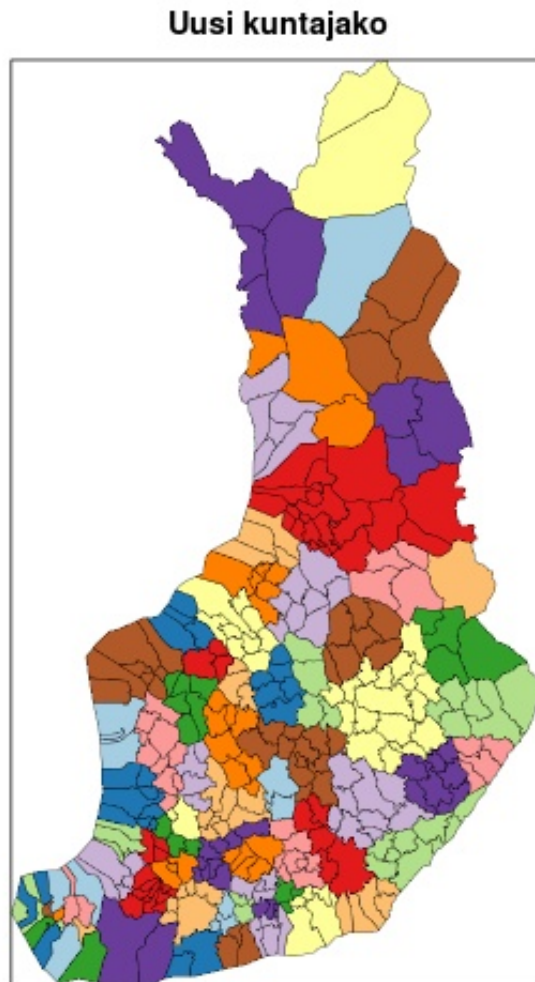


Municipal restructuring vs. population density

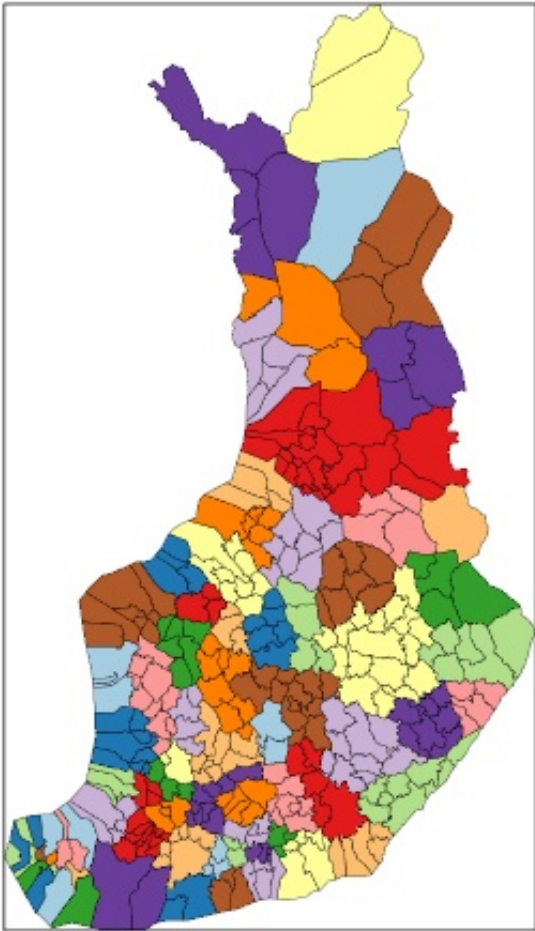
Municipality info: YLE

Municipality map:
Land Survey Finland

Population data:
Statistics Finland



Data Elections year 2012

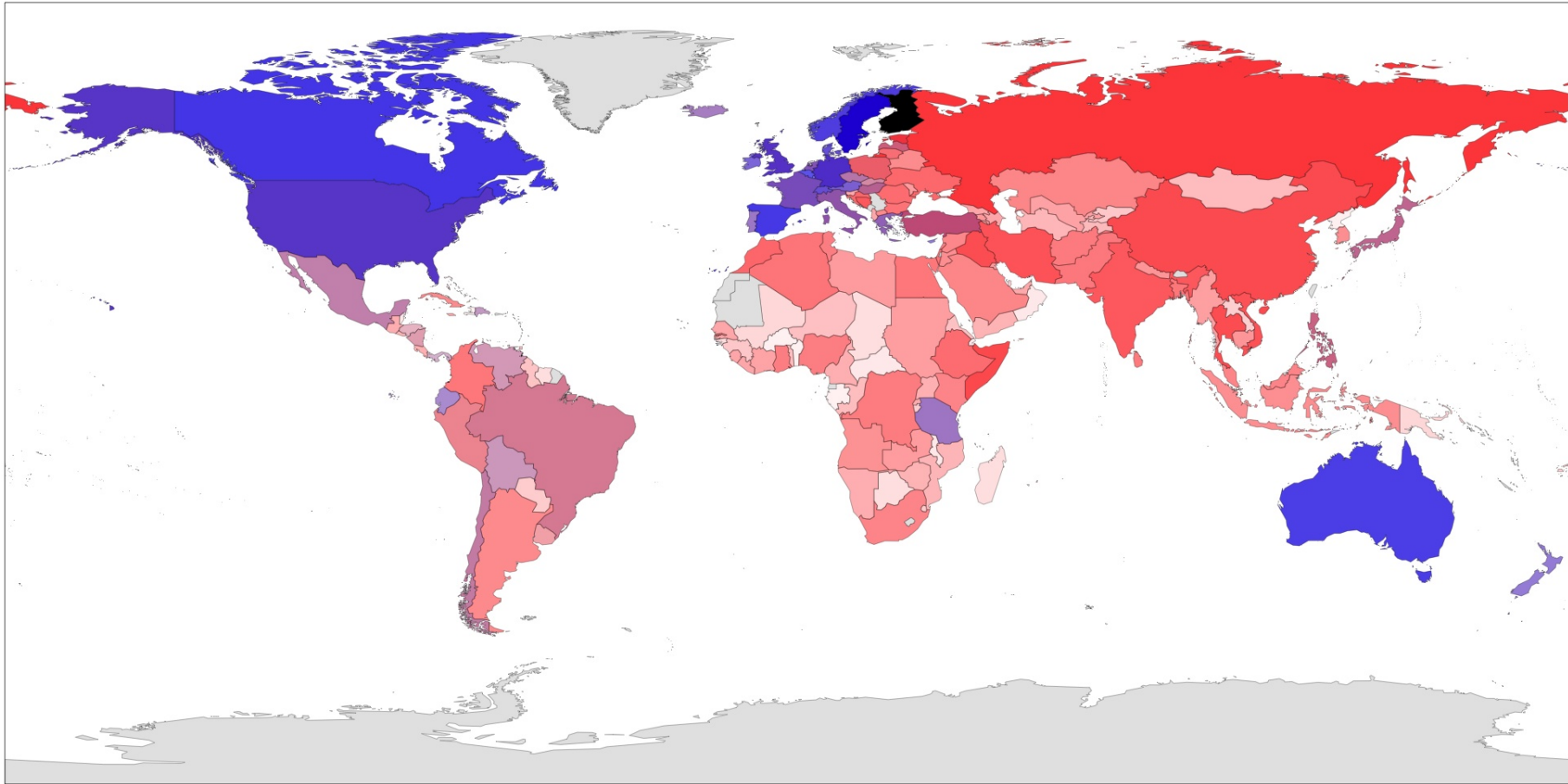


Building sustainable community infrastructure for parliamentary monitoring

Umbrella project: various individuals, organizations & media companies involved and joining

voting statistics, socio-economical indicators, crowd-sourced and screen-scraped data on election candidates and members of the parliament, parliamentary polls, government websites, public documents, blogs social networks, media

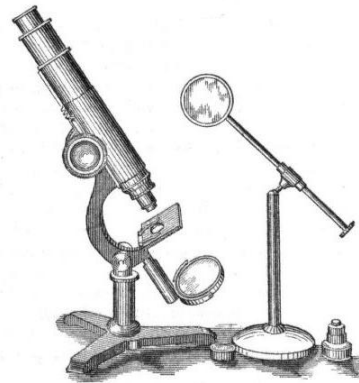
Global challenges, local solutions!



global network of similar local initiatives?

Thank You!

Louhos team
Helsinki Region Infoshare
Statistics Finland
Geographic Land Survey Finland
Helsingin Sanomat
Open Communities
OLD conference organizers & participants



Contact: louhos.github.com/en