

Scoping Paper SP3b: Powerful data - statistics to support social change - Jim Ridgway Notes 15 Sept 2015 [extracted by JE from SP3a, for discussion of *Focus E*]

Resources

Data visualisations (gapminder, eXplorer, Constituency Explorer...)

Rich resources (ONS, Eurostat, OECD, UN, World Bank)

Crowd sourcing

Fellow travellers

Politicised data providers UN (e.g. SDGs and MDGs, despite the warts), OECD

Journalists who really like data [e.g. David Walker, P. Toynbee, Tim Harford, et al.]

Data Checkers (e.g. Full Fact, Media Watch)

'Free' consultants (e.g. Statistics without Borders, Data Kind)

Educators

Most Radstats people

Q-step, etc. [see SP7a]

Jim's Erasmus+ project on stats teaching via big social issues

Big Statistical Ideas

- Measurement basics (myriad reliabilities and validities (e.g. Newton & Shaw, 2014), sampling bias); how to measure things (aesthetics, corruption of measures),
- interpreting multivariate data (Simpson's paradox, interaction, conditional probability),
- non-linearity, trends over time,
- effect size, bounded estimates
- Politics of data, data ownership, ethics...

References

Newton P. & Shaw S. (2014). *Validity in Educational & Psychological Assessment*. Sage

Ridgway J. (2015), *Stats Ed and the Data Revolution in Int Stats Rev*. Retrieved from :

<http://onlinelibrary.wiley.com/doi/10.1111/insr.12110/pdf>.