

ZMATH 2015c.00827

Ridgway, Jim; Nicholson, James; McCusker, Sean

‘Open data’ and the semantic web require a rethink on statistics teaching.

Technol. Innov. Stat. Educ. 7, No. 2, 12 p., electronic only (2013).

Summary: The concept of statistical literacy needs to be refreshed, regularly. Major changes in the ways that data can be accessed from government and non-government agencies allow everyone to access huge databases, to create new variables, and to explore new relationships. New ways of visualizing data provide further challenges and opportunities. The Open Data movement, and the rise of data driven journalism are increasing public access to large scale data via the media. Here, we map out some opportunities and potential pitfalls, and discuss the rebalancing of statistics curricula that is required. The most obvious challenge is the need to introduce students to the exploration and analysis of large scale multivariate data sets. The curriculum should also address issues of data provenance and quality. We present an example of our visualisations of complex multivariate data, used in classroom trials. General issues of pedagogy and curriculum innovation are discussed.

Classification: K10 D30 U70 M10

Keywords: statistics education; statistical literacy; open data; curriculum development; innovation; explorative data analysis; multivariate data; data representations; visualisation; semantic web; exploring complex data in social science classrooms; educational objectives; mathematics and society
<https://escholarship.org/uc/item/6gm8p12m>