

When Open Data Do Not Mean Open Knowledge: Interpreting Environmental Monitoring Results

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Public access to environmental information, strengthened in the European Union by the Aarhus Convention, has significantly expanded the availability of environmental monitoring data. Yet increased access does not automatically produce shared understanding. This presentation examines epistemic challenges associated with interpreting open environmental data, focusing on the interaction between cognitive biases, statistical literacy, and intrinsic statistical properties of environmental datasets. Particular attention is given to skewed distributions and compositional structures typical for concentration-based measurements, which may generate misleading correlations and complicate inference about environmental processes. The paper argues that open environmental data shift the central challenge from availability to interpretation, influencing trust in official communication and shaping public risk perception. This highlights the need for interpretative mediation in open environmental governance.

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