Data visualisation and information design at the science-policy interface: drawing from the IPCC experience.

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In this digital age, communication has become increasingly visual. Like never before, visual information is increasing exposure and widening outreach to new audiences. With growing demands from Journals (Table of Content arts, visual abstracts, scientific figures), conferences (posters, presentation) and competitive grants submissions, the science world is not spared, and figures represent a tremendous opportunity to communicate findings more effectively. It is therefore important to get figures and images right for the intended audience, even more so when visualizing scientific data and conveying complex concepts.

The Intergovernmental Panel on Climate Change (IPCC), whose primary role is to inform policy makers on the state of knowledge on climate change, showcases how complex science can be visually communicated to a non-expert audience. Since its fifth assessment report, published in 2014, the IPCC has acknowledged the importance of communicating its assessments in an understandable, accessible, actionable and relevant way to all its stakeholders without compromising on the scientific robustness and accuracy.

Currently in its sixth assessment cycle, the IPCC features a new approach to figure design in its three recently published Special Reports. This approach consists in an unprecedented collaboration between design, information and cognitive specialists and the IPCC authors. This co-design process, along with a continuous guidance to authors on visualization and cognitive concepts, was conducted in a user-centered way to best serve the audience needs and their respective background. The challenge of visually representing multi-disciplinary results, testing, evaluating, and refining the figures improved the clarity of the key messages. The entire co-design method has proven to be a successful process during the preparation of the special reports and the preparation of the sixth assessment report is building on this experience. Despite a lack of available analytics, the IPCC communication department has observed an unprecedented media coverage and a certain amount of derivative products based on the special reports figures created by third parties.