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Presentation of uncertainties on web platforms for climate change information

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Climate research has a long tradition, however there is still uncertainty about the specific effects of climate change. One of the key tasks is - beyond discussing climate change and its impacts in specialist groups - to present these to a wider audience. In that respect, decision-makers in the public sector as well as directly affected professional groups require to obtain easy-to-understand information. These groups are not made up of specialist scientists. This gives rise to the challenge that the scientific information must be presented such that it is commonly understood, however, the complexity of the science behind needs to be incorporated.

In particular, this requires the explicit representation of spatial and temporal uncertainty information to lay people. Within this talk/poster we survey how climate change and climate impact uncertainty information is presented on various climate service web-based platforms. We outline how the specifics of this medium make it challenging to find adequate and readable representations of uncertainties.

First, we introduce a multi-step approach in communicating the uncertainty basing on a typology of uncertainty distinguishing between epistemic, natural stochastic, and human reflexive uncertainty. Then, we compare existing concepts and representations for uncertainty communication with current practices on web-based platforms, including own solutions within our web platforms ClimateImpactsOnline and ci:grasp. Finally, we review surveys on how spatial uncertainty visualization techniques are conceived by untrainded users.