

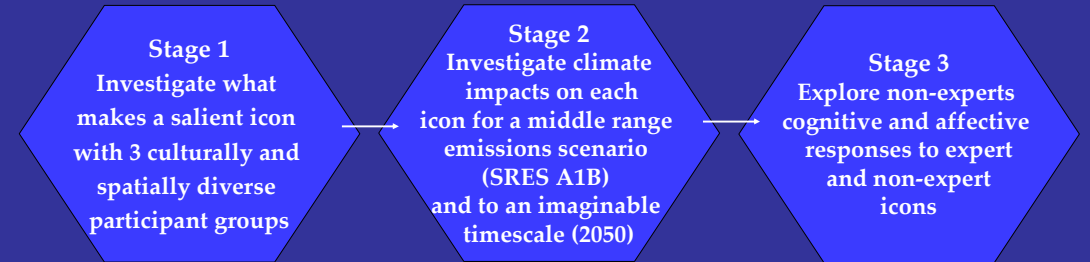
An iconic approach to communicating climate change

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Project summary

This research investigates the use of climate 'icons' to promote public engagement with climate change. Such icons already exist, e.g. the melting of the West Antarctic Ice Sheet (WAIS) or potential Thermohaline Circulation (THC) shutdown – but these 'expert led' icons may not engage non-experts. Using icons chosen by non-expert publics, and presenting climatic information on imaginable timescales and in knowable spatial dimensions provides saliency and encourages engagement with climate change.



An 'icon' is a tangible entity which will be impacted by climate change, considered worthy of respect, which the viewer can relate to feel empathy for

1. Icon selection

Focus groups were held with LEAD International Fellows and with Norwich school parents, and an online survey was conducted with forum members of ClimatePrediction.net. Three axes were apparent in icon selection: spatial scale, and pragmatic and intangible reasoning (links to analytic/experiential system, Slovic *et al.* 2004).

A suite of three expert and three non-expert icons were selected for stage two. The expert icons of the West Antarctic Ice Sheet (WAIS), ocean acidification and the Thermohaline Circulation (THC) emerged from the Avoiding Dangerous Climate Change conference held in Exeter, UK (2005).

The non-expert icons were flooding in the Norfolk Broads, UK; sea level rise and flooding in London, UK, and Arctic sea ice melt and impacts on polar bears.

2. Icon modelling

The Norfolk Broads icon was modelled using the Thames LISFLOOD-FP, a quantitative flood inundation model (Dawson *et al.*, 2005). Flooding impacts on London were realised through the Tyndall Coastal Simulator model (Dawson *et al.*, submitted). Impacts were visualised using the ArcMap Geographic Information System.

Impacts on polar bear populations were investigated through an expert survey of the Polar Bear Specialist Group, part of the IUCN Species Survival Commission (see O'Neill, submitted).

An information sheet was developed for each icon, containing summary results of climate impacts in the form of a narrative, image and map.

3. Icon evaluation

A public pre/post-test workshop was carried out to explore cognitive and affective responses to the non-expert and expert icon treatment.

Icons are a useful tool in climate change communication: after viewing the icons, participants agreed more strongly that if they came across climate information, they would look at it (Wilcoxon matched-pairs signed-rank test, $T = 212$, $P < 0.01$, $n = 142$).

Participants were most drawn to the non-expert icons Norfolk Broads (24%) and polar bears (23%), with reasoning such as 'it shows people how climate change will directly impact on their lives'. Participants were least drawn to the expert icons ocean acidification (11%) and WAIS (7%), often because these icons were 'too technical', or because there was 'nothing to really connect people with the problem'. This finds resonance with similar research (see Moser and Dilling, 2007).

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