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DOI
10.1038/s41893-024-01277-y

Publication date
2024

Document Version
Final published version

Published in
Nature Sustainability

Public support strategies

https://doi.org/10.1038/s41893-024-01277-y

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To realize sustainability transitions, there is a need for broad societal support. A study now shows that images can be influential in building that support, even in the case of policy decisions to invest in greener urban transportation, which more sceptical citizens would typically not endorse.

Transitioning to a more sustainable world requires political will and behavioural changes across different groups. However, green policies supporting such transitions often face societal resistance and controversy[1]. Now, writing in *Nature Sustainability*, Dubey and colleagues[2] show that re-imagining green futures in a way that helps to overcome political differences is a promising strategy. Re-imagining takes place through building future scenarios that use textual descriptions but that also include visualizations of the proposed greener futures. In particular, the authors demonstrate that artificial intelligence (AI)-generated images that depict a greener mobility future increased support for the necessary public investments in transport infrastructure across a diverse political group of people, including Republicans, who usually oppose such investments[3].

Dubey and colleagues asked 1,529 Americans with different political preferences to read a hypothetical bill proposing investments in green infrastructures for mobility in American cities. They divided the sample into three groups: a baseline group, who did not see a visual; a group that saw a simple illustration of the proposed future; and a group that saw a highly realistic AI-generated visual. Republicans reported significantly higher support for the bill after seeing the AI-generated visuals, or when shown the simple illustration, compared with others who had a different political background.

The results of this study support the popular saying "a picture is worth a thousand words". Other studies have also shown the importance of visuals in policy controversies. Visualizations package emotions, values and information, and when spread on social media or the Internet, they travel fast. They can influence public opinion and political decision-making[4–6]. The flaming faucet, a photograph of flames coming from a drinking water tap, is an example of a visualization in which the potential risks of shale gas production were made apparent. The visual travelled across the world, and in some countries influenced public opinion on shale gas[7].

Online, people often use images to show what aspects of sustainability transitions they support, fear, do not agree with, or believe may have positive or negative consequences. On the one hand, this provides information about how the public sees, understands and thinks about developments in sustainable transitions, but also raises legitimate concerns about the possibility of spreading fake news or misinformation[8]. On the other hand, as this study by Dubey and colleagues shows, there can be positive effects of using visualizations (hand-made or AI-generated) to build public support for sustainability transitions;

Imagining greener cities helped to build support for more sustainable urban transportation policies.

it is relatively easy to create realistic and personalized images of hypothetical green future cities that convince adversaries of a green policy, despite their partisan values.

The findings of Dubey and colleagues invite us to, first of all, further investigate what type of images may be most suitable to visualize sustainable futures and overcome controversies. In their study, the realistic AI-generated visuals are hard to distinguish from photographs. The study seems to indicate that more abstract coded visuals may have been perceived as less attractive than the more realistic AI-generated ones. A second question is why these AI-generated images were so successful: was it the colours used, the composition, the people in them, their realism, or their aesthetics, or was it to do with the story being told in the picture and the accompanying text? Very often, a combination of text and visual is most convincing. Images without text are sometimes hard to understand[4,9,10]. A third consideration is whether it matters who creates and spreads the image. In the paper by Dubey and colleagues, it was transparent what the purpose of the study was and who created the image. But for images found on the Internet or images shared by people's contacts through social media, it is not always clear who produced the image, for what purpose and for what desired effect. This knowledge is especially important when trying to figure out ways to cope with misinformation.

Finally, the findings reported by Dubey and colleagues indicate that it also matters who the audience is. We should better understand why a particular group – in this case, republicans – responds differently to the AI visuals compared with other groups. We need to answer these four questions if we want to better understand and empirically investigate how visualizations can contribute to accelerating sustainability transitions. Visuals that are both realistic and attractive seems to help viewers interpret complex information, and providing positive emotional triggers seems to be crucial to build support for green policies among groups who are traditionally opposed to accepting such ideas.

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Published online: 23 February 2024

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Competing interests

The authors declare no competing interests.