

Spotlight

Never Too Old to Care: Reaching an Untapped Cohort of Climate Action Champions

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Manuscript received October 10, 2016; Editorial Decision date October 24, 2016

Decision Editor: Robert B. Hudson, PhD

Keywords: Climate change, Sea-level rise, Risk perception, Civic engagement, Age-related differences, Visualization

Introduction

Numerous studies of U.S. audiences have examined people's opinions about anthropogenic climate change and possible response options (e.g., Leiserowitz, Maibach, Roser-Renouf, Feinberg, & Rosenthal, 2016; MacInnis et al., 2014; Moser, 2014; Saad & Jones, 2016). Typically they find that younger adults tend to be more interested in climate change than older people, on average are more concerned, and want to see actions to reduce greenhouse gas emissions and prepare for the impacts of climate change (DeSilver, 2014; Jamelske, Barrett, & Boulter, 2013; Jamelske, Boulter, Jang, Barrett, Miller, & Han, 2015). This seems intuitive in that the younger generation will be around longer to see worse(ning) impacts, and they are saddled with the heavy burden of finding even more radical and possibly more costly solutions in the future due to the failure of the current generation to implement adequate responses.

These insights have led some to either deliberately or unconsciously write off older Americans in terms of targeted engagement. Concern is lower, and due to a shorter remaining lifespan, motivation to fight for a livable future may also be lower. On the other hand, many members of the older age groups are said to hold firm values about civic engagement, vote in greater numbers than younger Americans, and have more time to give to climate activism (Kimball & Payne, 2014). So is it really justified to ignore older Americans when it comes to engaging people on climate change?

This Spotlight brings attention to the findings of a recent study that suggest it may be premature to dismiss an entire generation in climate outreach efforts, and in fact doing so may constitute a critical missed opportunity.

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Project Background and Methodology

In 2015, a collaborative project called Here-Now-Us was launched to facilitate greater involvement of local populations in planning for the impacts of sea-level rise and climate change (sometimes called preparedness or resilience building) in Marin County, California. The project involved a diverse set of partners from local and federal government, the civic and private sectors, and academia. The goal of Here-Now-Us was to test the use of a unique visualization technique to increase citizens' engagement in local planning efforts. Marin County leaders were interested in increasing public engagement in the adaptation planning process they had already launched. This provided the project team a unique opportunity to (a) test a new visualization technology, (b) advance scientific understanding of the use of visualization in public engagement in climate change, and (c) explore ways to encourage citizens to participate in public dialogue about potential adaptive solutions.

To visualize sea-level rise impacts, the project team used a viewfinder called an “OWL,” which was modeled after the familiar devices found at notable vistas. The OWL is a 360-degree rotating audio-visual platform that enables users to view visuals, respond to survey questions, and leave audio comments. Importantly, compared with other visualization approaches that use 2D, computer-based visuals viewed indoors, the OWLS use realistic, 3D, interactive visualizations placed in the very landscape in which climate change impacts are expected to occur in the future. This approach makes climate change risks real and tangible to viewers, thus overcoming a commonly found problem in climate engagement to date: psychological distance (Jones, Hine, & Marks, 2016; McDonald, Chai, & Newell, 2015; Spence, Poortinga, & Pidgeon, 2012; Weber, 2016). OWL-based visuals score highly on all recommended dimensions for effective visualizations emanating from prior scientific research (Corner, Webster, & Teriete, 2015; Sheppard, 2012): realism, immediacy, relevance, human experience, and the clear link between human choices and future consequences. The resulting visual experience is cognitively and emotionally arousing, and through the interactive nature of the device, also physically engaging, thus generating more impactful and memorable experiences in users.

For this project, the team placed two OWL units (one for adult-sized, upright standing viewers, the other [ADA-compliant] one for children or wheelchair users) along a highly frequented multiuse path close to residential areas, schools, roads, and restaurants (Moser, Daniels, Pike, & Huva, 2016). Over a 14-week installation period, the project recorded more than 3,700 viewing sessions. Over the course of viewing two risk scenarios (current flooding and future flooding under sea-level rise scenarios commonly used in local planning) and two different adaptation response scenarios (a seawall and a nature-based “green infrastructure” solution), OWL users responded to five short, simple survey questions embedded in the viewer. The questions, using Likert-scale or multiple-choice questions, inquired about people’s (1) initial and (2) subsequent level of concern about flooding, their (3) interest in learning more about adaptation options (those shown and others), (4) their motivation to get engaged in local adaptation planning efforts, and (5) their age.

The project team analyzed the results and tested them for statistical significance using a variety of statistics and tests. To ascertain whether there was a relationship between age and level of concern, interest in learning more about adaptation, and desired level of further engagement, we used subsamples of the population that answered each of the relevant questions as well as the last question on age. The size of the relevant data subsets ($n > 1000$ for each variable), the statistically significant findings, the validity of constructs, and well-established underlying theory on risk perception and motivation, as well as the triangulation among different data, give confidence in the validity of the findings (for detailed results see Moser et al., 2016).

Findings

Overarching Insights

Overall, the research showed unambiguously that the OWL-based 3D visualizations could raise concern about flood risks in OWL users. By localizing sea-level rise in the very place in which it is expected to occur and experiencing it quite viscerally, the visualizations helped increase awareness and understanding of localized climate change risks.

Notably, the visualizations proved particularly effective with populations that initially showed no to little concern about current flooding risks. Presumably, these viewers had no or only limited prior experience with flooding, had not thought about sea-level rise risks before, and/or had not imagined how this global risk might affect them locally. This subgroup of viewers shifted on average two levels up as a result of viewing the sea-level rise visual. Moreover, those who expressed high levels of concern about current flooding risks, those who expressed high levels of concern about future sea-level rise, and those who made the greatest shifts toward greater concern expressed a desire to engage in the more intensive forms of engagement, such as attending a meeting or taking an active role in their communities.

Age-Related Differences

Age-related differences are particularly interesting: Of the OWL users who answered all five questions—that is, the most engaged OWL user segment—about half fell into the Gen X (36–50 years old, 26%) and Baby Boomer (51–72 years old, 26%) generations; another 21% were under 15 years of age (Gen Z), 18% self-identified as Millennials (18–35 years old), and the smallest group (10%) were the Matures (more than 72 years old, sometimes also called Silents).

A closer look reveals that the Matures (along with Gen X) were most concerned about existing flooding risks (measured as the groups with the largest number of “extremely” and “very” concerned individuals), followed by Millennials and Baby Boomers. Interestingly, the older age groups also had the largest percentage of “not at all” concerned individuals.

When shown the sea-level rise scenario, Matures, Baby Boomers, and Gen Zs shifted most significantly toward greater concern, producing an overall pattern of higher concern levels about future sea-level rise being positively correlated with age. But the oldest and the youngest age group also had the greatest number of “not at all” concerned. A chi-square test revealed that this relationship is statistically significant.

When asked about the level of interest in learning more about the various adaptation options, more than 90% of participants in each group except the oldest generation were interested in learning more about at least one of the options given (Figure 1).



Figure 1. An elder resident of Marin County exploring sea-level rise visualizations in the OWL viewfinder. Source: Leslie Alden (used with permission)

Finally, a distinct positive correlation was found between age and desired level of engagement in the adaptation planning process, with the youngest commonly wishing no further involvement or simply expressing interest but without active engagement. By contrast, older adults more often wished for more information, were willing to attend a meeting, or wanted to take on an active role in the community. In fact, the chi-square test uncovered the statistically most significant correlation of all analyses done for this project between age and engagement level: the older in age, the higher the desired level of engagement. Reflective of common patterns of civic engagement in the United States, life stage, and time availability (DeSilver, 2014), a plurality of the Matures wished to take an active community role, and a majority of Baby Boomers were willing to attend a meeting on adaptation.

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Implications and Conclusions

The OWLs proved highly effective in raising concern and motivating people to become further engaged. The greatest impact was seen on viewers who entered the experience with low levels of concern, who—as a result of seeing the sea-level rise visual—made the largest jump in concern and then expressed a great interest in learning more and particularly in getting more actively involved in the community’s adaptation planning process.

This pattern was seen most prominently in the older viewing groups and points to the potential of mobilizing

older Americans for climate action. Particularly notable was their desire to become actively engaged in the community.

It is important to bank on this elevated readiness to engage by providing OWL users (or people mobilized in other ways) immediately with something meaningful to do, preferably multiple, but not an overwhelming set of, options. Such options, as this research suggests, must respond to expressed desires of engagement. Those interested in increasing local engagement in climate action are well advised to gear some of that outreach specifically to older Americans who are willing to help leave a better future for the next generation.

Funding

Funding for this project was provided by the Federal Emergency Management Agency (FEMA) (Region IX) through a Community Technical Partnership Grant to the County of Marin and is gratefully acknowledged along with additional funding from Autodesk, Marin Clean Energy, and the County of Marin.

Acknowledgments

Thank you to Christa Daniels (Antioch University) who assisted with the research. The project could not have been carried out without the continuous and successful collaboration, commitment and engagement of all project partners: County of Marin: Supervisor Kate Sears, Leslie Alden, Tara McIntire, Roger Leventhal, Jack Liebster, and Ron Miska; FEMA Region IX: Juliette Hayes and Michael Hornick; Climate Access: Cara Pike, Amy Huva, Apollo Gonzales, and Sutton Eaves; Owlized: Aaron Selverston, Nate Kauffman, Ron Hupp, Randy Burton, and Sedrick Bouknight; and External Project Advisors: Frank Neipold (NOAA), Heidi Nutters (then at the San Francisco National Estuarine Research Reserve), Tristan Randall (Autodesk), and Stephen Sheppard (University of British Columbia). The author further thanks Mick Smyer for his interest in this project and encouragement to publish relevant findings in this issue of *Public Policy & Aging Report*.

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