

Alison J. Head

# How College Students Respond to Climate Change in Troubled Times

Four Takeaways from Project Information Literacy's Latest Study

Information literacy educates individuals for life as free human beings who have the capacity to influence the world. But at a time where there is less agreement about what is true, what can be trusted, and where information has originated, it's more challenging than ever for the public to reach consensus about how to respond to big, complex problems such as climate change.

How can students learn to take informed action when their ability to comprehend and respond to threats posed by the climate crisis is jeopardized by anxiety, frustration, and despair? How can librarians connect with students and faculty alike when the stakes are so high and society's ability to confront the crisis seems so inadequate?

At Project Information Literacy (PIL), a national research institute I direct, we think it's critical for us to understand not *what* students know about the climate crisis but *how* they know it, so librarians can develop effective learning opportunities. What are the ways in which students encounter, engage with, and respond to climate change news and information? How do these interactions shape their perceptions of the worldwide climate emergency? How do these attitudes impact their willingness to take action?

To answer these questions, a team of PIL researchers surveyed 1,593 college students from nine US colleges and universities earlier this year as part of a larger study on how Americans encounter and act on information about climate change. We used information literacy as a lens to better understand why some students are skeptical or ambivalent about climate change while others remain hopeful in the midst of gloom.

Our latest research was part of a yearlong study that our small team of PIL researchers in library and information science, new media, and data science conducted during 2023 and 2024. We examined how our sharply divergent attitudes and beliefs about climate change are shaped by the channels of news and information with which people, including students, living throughout the United States encounter, curate, and engage.<sup>1</sup> To date, there have been no other in-depth explorations of the technological and social infrastructures through which Americans develop their understanding of the climate crisis.

Since students will have to live with the consequences of decisions we make now to combat climate change, their perspective is vital for addressing climate change today. A deeper understanding of how students encounter and process information about climate change

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Alison J. Head is the founder and director of Project Information Literacy (PIL), a national, nonprofit research institute in the San Francisco Bay Area, email: [ajhead1@gmail.com](mailto:ajhead1@gmail.com).

can help campuses address the pervasive despair among students who worry that little can be done to combat the crisis.

Librarians are well aware that information flows to all of us, online and in person, through multiple channels that have grown increasingly diverse, individualized, and unrelenting. These streams, influenced by our experiences and values, make up our *information worlds*, a concept critical for understanding how social and technological spaces determine our fundamental beliefs and knowledge and the ways in which we make sense of their world. Ultimately, information worlds are what unites and divides us.

This article shares four major takeaways from our research about how information worlds define students' encounters and response to climate change. Our findings serve as a basis for some librarians wanting to promote and others actively mobilize climate change engagement and action on their campus.

### **1. Students curate information streams that include climate change news, but most find media coverage about the climate crisis lacking and frustratingly incomplete.**

While students we surveyed followed news of all kinds, they had read, listened to, or heard only “some” (27%) or “a little” (39%) climate change news during the past week. As one said of news coverage, “it’s either a new record we’ve broken with heat, or loosening regulation—it’s all very depressing.” One reason for this reaction may be that too much of the news coverage of climate change is so bleak: More than three-quarters of the student sample (77%) agreed with the statement, “The media focuses more on the negative impacts of climate change rather than solutions.”

What appears lacking in most climate change coverage is not so much a sense of urgency but the big-picture context with a focus on progress toward solutions. The *newness of news*, with its focus on the latest weather-related disasters and political disputes over climate policy, makes it hard to cobble together a sense of perspective. Our findings suggest this gives many students (and so many of us) a vague sense of impending catastrophe rather than a clear path for possible futures based on choices we make together.

Librarians are particularly well suited to respond to this problem: Whether it’s through reference services or instruction, academic librarians can share how to find credible news stories providing more context about the climate crisis that speak to the concerns and preferences of their specific student and faculty audiences. There are reliable news sources, such as *ProPublica* and *The Guardian*, that have been long-time leaders in solutions journalism and publishing in-depth stories with data and evidence about mitigating climate catastrophes through community action and federal policy changes. For many librarians, sources like these are a starting place to work with students and faculty.

### **2. Students rarely share climate change news and information with others, but the classroom provides a rich setting for discussions.**

While a majority of students held the same opinions about climate change as people in their orbit, such as family (66%) and friends (79%), their participation in the public square was notably limited. Few students (27%) shared ideas or links to climate change news and information through conversations with people in real life or on social media in the month prior to taking the survey, if at all (26%). A large majority (74%) said discussions about climate change can be productive, even though respondents' comments suggest many are not likely to initiate them.

Surprisingly, a vast majority of our student sample (66%) say they were willing to talk about climate change with someone even if they don't necessarily agree, a surprise given the political contention during a heated election year.

The classroom is one place where conversations can flourish. As one student put it, "Hearing about climate change makes me want to be part of a solution, it's why I'm studying environmental science." For some students, general education courses encouraged them to overcome anxiety and feel more positive about the future. As one student said, "I already knew about climate change, but the class focus on explaining how to increase electric power made the solution seem doable and made me more hopeful about combating climate change." As we have found in PIL's prior research,<sup>2</sup> the classroom can be an influential incubator for discussing and interpreting current events, and for offering solutions that foster student engagement.

We're not the only ones that think this way. Writing for *Scientific American*, Matthew Schneider Mayerson<sup>3</sup> says the key to talking with students about climate change is to let them express their feelings and fears before introducing the science. That's when discussions about worries and concerns can happen and students can see how community climate action amplifies solutions—solutions that can counter despair, inform policy making, and spark feelings of hopefulness. As a starting point, PIL's news study lays out teaching strategies for how to better prepare students to gather and evaluate credible news sources, first as students and then as lifelong learners.

**3. Encounters with climate news may be sporadic, yet students routinely evaluate the credibility of content.** Most students' pathways to climate change news are self-curated and algorithmically promoted. As a result, their encounters with climate change news are sporadic and unplanned—something about climate change pops up on their social media feed (54%) or appears on a news site they visited (28%), or their attention is drawn to a headline, photo, illustration, or chat while scrolling (31%). In sharp contrast, those who actively searched for climate change news comprised a small minority of our sample (18%). As our survey responses and open responses to our survey confirm, climate change news comes in a piecemeal, haphazard manner about one disaster after another.

Even though these may not be ideal ways to stay current with climate change, students had a deep trust and acceptance of expertise. Trust in US institutions of all kinds has been declining for years,<sup>4</sup> yet the students we surveyed were both more trusting of institutional knowledge and more inclined to evaluate the information they encountered than our general sample of Americans. A significant majority of students (82%) agreed that scientists understand the causes of climate change, and over half (58%) believed most news about the climate crisis was credible. Many had combined this innate trust with other methods of verifying the reliability of news, like comparing one source with another for fact-checking.

Having grown up with the threat of climate change, many have learned about media and information literacy, and source evaluation appears to have become a habitual practice, often introduced to them by librarians. In the larger sense, these findings are good news for librarians: They provide empirical evidence that ongoing lessons in determining the credibility of sources, even with a well thought out "one-shot," can have cumulative and positive outcomes as far as shaping student evaluation practices.

**4. Amid widespread climate anxiety, there are glimmers of hope.** While climate change made a large majority of students we surveyed (78%) feel anxious about their future and even more (88%) were anxious for future generations, nine out of 10 undergraduates agreed that humanity has the ability to mitigate climate change. Another 78% believed in the power of individual action, and even more (81%) were motivated to be part of the climate change solution. There's good news in findings like these: Even if students say they are “sad,” worried,” “anxious,” and “angry” about living on a planet in peril, many are taking individual steps, such as recycling and taking mass transit to fight climate change, no matter how small they may seem.

The challenge, as author and climate activist Hannah Ritchie argues,<sup>5</sup> is convincing more people that they are not alone in wanting action on climate change. In particular, librarians can leverage their role on campus as a gathering place for discussion, knowledge, research, and access to carefully curated climate change resources that are both current and credible.

## A Way Forward

Taken together, findings from our latest information literacy research tell us students living in the US have devoted considerably more attention to thinking about climate change than other young people their age not actively enrolled in college. Students by and large trust scientists to understand the causes of climate change and also trust journalists more than we found in our survey of the general population. Most students have a strong belief that combating climate change is their civic duty, and though they feel anxious about the future, they believe humans will mitigate the climate emergency facing all of us. More than any other findings, our survey results demonstrate students have made evaluation a habitual practice, even with topics as complex as climate change.

Altogether, our findings suggest that, coupled with widespread anxiety about the future, there is a groundswell of support for climate action on campuses. Other pressing issues compete for students' attention, like wars raging in the other parts of the world, student protests across the country, and a looming presidential election, yet only a handful of our survey respondents (20%) say that they don't think about climate change at all.

For all these reasons, librarians have played—and continue to play—a critical part in helping students gain a sense of agency as we all confront a global climate challenge. Helping students deal with such vast and pressing issues raises new research questions relevant to librarians' and educators' needs about navigating the changing information landscape. More than ever, librarians can bring credibility, clarity, and a deeper understanding of climate change solutions to students seeking answers as well as spark hope and give students a sense of agency about an uncertain future. ❧

## Notes

1. Alison J. Head, Steven Geofrey, Barbara Fister and Kirsten Hostetler, “How Information Worlds Shape Our Response to Climate Change,” Project Information Literacy Research Institute, July 9, 2024, <https://projectinfolit.org/pubs/climate-study/>.

2. Alison J. Head, John Wihbey, P. Takis Metaxas, Margy MacMillan, and Dan Cohen, “How Students Engage with News: Five Takeaways for Educators, Journalists, and Librarians,”

Project Information Literacy Research Institute, October 16, 2018, [https://projectinfolit.org/pubs/news-study/pil\\_news-study\\_2018-10-16.pdf](https://projectinfolit.org/pubs/news-study/pil_news-study_2018-10-16.pdf).

3. Matthew Scheider Mayerson, “To Teach Students about Climate Change, ‘Just the Facts’ isn’t Enough,” *Scientific American*, September 21, 2009, <https://www.scientificamerican.com/article/to-teach-students-about-climate-change-just-the-facts-isn-t-enough/>.

4. “America’s Trust in Its Institutions Has Collapsed,” *The Economist*, April 17, 2024, <https://www.economist.com/united-states/2024/04/17/americas-trust-in-its-institutions-has-collapsed>.

5. Hannah Ritchie, *Not the End of the World: How We Can Be the First Generation to Build a Sustainable Planet* (New York: Little, Brown, Spark, 2024), 9.

## **About PIL’s Climate Change Study**

The climate change study was conducted by Alison J. Head, PhD, Steven Geoffrey, Barbara Fister, and Kirsten Hostetler. PIL Fellows Yuqi He, Marisa Ambrose, and Noah Padecky were also contributors to the research,

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