

April  
2023

**ASU** Julie Ann Wrigley  
Global Futures Laboratory™  
Arizona State University

## Global Futures: **Now**



[earthday.org](http://earthday.org)

**“The power to question is the basis of all human progress.” – Indira Gandhi**

This Saturday marks the 53rd annual Earth Day. There is no question that we are living on a planet under duress. At this moment, we are living out of balance with Earth’s life supporting systems. Even as we celebrate, we acknowledge that humankind finds itself at a crossroads—the difficult decisions we make today will have

consequences for the way we live now and the resources we leave for future generations.

Will there be more urgency as our knowledge grows? I want to believe that the answer is yes. We know the actions that are required, and we know that change has happened in the past, sometimes at a rapid [pace](#). The increasing expressions of the negative impacts from global change are likely to increase the allocation of resources toward current and impending crises.

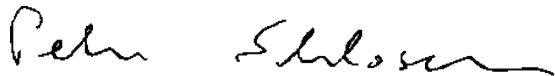
It has happened before. The first Earth Day in 1970 was the summation and amplification of events that preceded it. In 1962, Rachel Carson's "Silent Spring" launched the modern environmental movement. In 1966, a smog event in [New York City suffocated to death as many as 200 people](#). And in 1969, media coverage of a [massive oil spill off the coast of Santa Barbara, California](#) and a [river on fire in Cleveland, Ohio](#) caught the attention of Congress and the American people, searing the need for change into the public consciousness. After [20 million people demonstrated](#) on the first Earth Day, a flurry of government acts followed, including the creation of the U.S. Environmental Protection Agency (1970) and passage of the National Environmental Education Act (1970), the Clean Air Act (1970), the Clean Water Act (1972), the Endangered Species Act (1973), among others. "[The Limits to Growth](#)," published by the Club of Rome in 1972, provided further insights into the hazards of unrestrained economic and population growth, forewarning of the stressors we now see on the planet and society in the present.

Today, we are witnessing major policy successes in spite of the contentious political environment. The U.S. government is mobilizing resources at a scale not seen before to stave off the worst effects of climate change. The Inflation Reduction Act of 2022 is a historic investment in U.S. energy infrastructure and production of the order of [hundreds of billions of dollars](#), with incentives to propel electric vehicles and solar systems, as well as innovations in carbon capture and use of hydrogen in future energy systems. The Infrastructure Investment and Jobs Act of 2021, often referred to as the bipartisan infrastructure deal, includes [\\$8 billion](#) for regional clean hydrogen hubs and [\\$6 billion](#) for research on carbon capture and storage. These investments in present manufacturing and future opportunities, as well as initiatives in other nations, are essential because humankind cannot simply rely on cutting emissions first and then removing carbon dioxide from the atmosphere later—these must be done in tandem rather than sequentially.

The Julie Ann Wrigley Global Futures Laboratory and partners around the region are

working together to be part of these transitions. [The Southwest Clean Hydrogen Innovation Network](#) (SHINe) is under consideration for funding as one of a handful of the regional clean hydrogen hubs under the bipartisan infrastructure law. The coalition will support processing, storage and use of hydrogen, as well as add workforce development and job opportunities. [The Southwest Regional Direct Air Capture Hub](#), also seeking support under the infrastructure law, will accelerate the commercialization of carbon capture, processing, transport and geologic storage through a multi-site hub in the four corners region, in partnership with tribes, area residents, and local and state governments. Both of these endeavors merge scientific knowledge and discovery with engagement for scalable solutions—hallmarks of the Global Futures Laboratory.

We know the path ahead of us looks different than the path behind us. But we are not flying blind as we look to relieve the pressures that our lifestyles have placed on the planet. We have knowledge, technology and history to help guide us toward a thriving future for all. We need to support rapid transformations at the local, national and global scales. It has been done before, and we can do it again. Happy Earth Day.



Peter Schlosser  
Vice President and Vice Provost of Global Futures

## News



## ASU celebrates Earth Week across campuses

The Julie Ann Wrigley Global Futures Laboratory offers a variety of events in celebration of Earth Week, including a three-hour event on April 21 that will include conversations and interactive experiences around water, decision-making and the critical issues that guide our present and futures.

[Read more](#)

## Colorado River water Q&A: ASU experts say White House proposal tries to push states to consensus

Arizona State University water experts [Sarah Porter](#) and [Dave White](#) said the draft Supplemental Environmental Impact Statement may encourage state officials to continue water negotiations with renewed





energy and come to a new, state-led solution.

[Read more](#)



## ASU team studies sea-ice changes in the Arctic

The ARC-NAV project is composed of a national group of scientists taking both a social science and physical science approach to researching sea-ice changes in the Arctic. They are working with Indigenous Arctic communities to find out what matters most to them. The team includes Senior Global Futures Scientists [Shauna BurnSilver](#), [Marty Anderies](#) and [Stephanie Pfirman](#), [among others](#).

[Read more](#)

## ASU exhibit at Arizona Science Center sees state through future generations' eyes

“Mission Future: Arizona 2045” recently opened at the Arizona Science Center. The interactive experience combines space and earth science, storytelling and hands-on elements to explore what a hypothetical future in Arizona would look like.



[Read more](#)



## Regional network advances to full proposal for developing Southwest hydrogen hub

[The Southwest Clean Hydrogen Innovation Network](#) (SHINe) is submitting a full proposal for the development of a desert Southwest clean hydrogen hub. The full proposal will seek federal funding to support crucial clean hydrogen-focused initiatives.

[Read more](#)

## The pace of change

Peter Schlosser, Steven Beschloss and Ayrel Clark-Proffitt discuss the complicated history of societal change — and how swift action is needed now, during one of the most decisive decades of our time, if we are to obtain a sustainable future.

[Read more](#)



## Putting a cap on plastic bottle consumption

Scientists say the creation of plastic water bottles taps too much of our groundwater supply, leaves a heavy carbon footprint, is a large source of litter and causes severe damage to the world's coral reefs. According to a recent report, the bottled water industry is only growing.

[Read more](#)

## ASU students use the power of storytelling to drive awareness of water scarcity at Idea Jam

More than a dozen students came together to develop creative ideas to increase public awareness of the water issues affecting Arizona communities at Idea Jam 2023. Impact Water - Arizona joined forces with Learning Futures and Decision Theater to sponsor the event in an effort to reach new audiences through student innovation.



[Read more](#)



## New fellowship explores artificial intelligence and society

Through a new fellowship opportunity offered by the School for the Future of Innovation in Society and the New York Academy of Sciences, three postdoctoral research scholars can participate in a program that combines education and training experiences relating to AI and society. The application deadline is April 25.

[Read more](#)

# People



## Bermuda Institute of Ocean Sciences professor's job is kinda fishy

[Leocadio Blanco-Bercial](#) studies the ocean from a St. George's observatory on the islands of Bermuda for the Bermuda Institute of Ocean Sciences, one of the longest-serving research institutes dedicated to studying ocean processes in the Western Hemisphere and now associated with the Julie Ann Wrigley Global Futures Laboratory. Blanco-Bercial's work focuses on understanding how diversity is originated and maintained in the open ocean.

[Read more](#)

## 3 ASU professors honored as American Association of Geography Fellows



ASU faculty and Global Futures Scientists [A. Stewart Fotheringham](#), [Wei Li](#) and [Wenwen Li](#) were celebrated as AAG Fellows at the 2023 meeting of the AAG in Denver. AAG is a nonprofit scientific and educational society, and the AAG Fellows program recognizes those who have made significant contributions to advancing geography.



[Read more](#)



## ASU researcher receives prestigious Smith Fellowship for local conservation work

Amber Datta is conducting research for a project titled “Pathways to power: Supporting Indigenous peoples and local communities to achieve local and global conservation goals,” thanks to support from the Society for Conservation Biology and the Cedar Tree Foundation through the prestigious David H. Smith Conservation Research Fellowship.

[Read more](#)

## Nancy Grimm among 2023 ASLO award winners

[Nancy Grimm](#) received the 2023 Alfred C. Redfield Lifetime Achievement Award in recognition of her insights on the impacts of human activities and climate change on the biogeochemistry in urban and inland waters. This award honors an aquatic scientist for



major, long-term achievements in the fields of limnology and oceanography, including research, education and service to the community and society.

[Read more](#)

## Events



### Earth Day: Celebrating Our Relationship with the Planet

Check our [Earth Week online hub](#) with programming and events hosted across ASU's campuses.

**April 20-21**  
**Various locations**

[Register](#)



### Arizona Water Innovation Initiative Kick-Off Event

Please join us as we celebrate the launching of the [Arizona Water Innovation Initiative](#).

**Tuesday, April 25, 2:30-4 p.m.**  
**Walton Center for Planetary Health Auditorium**

[Register](#)



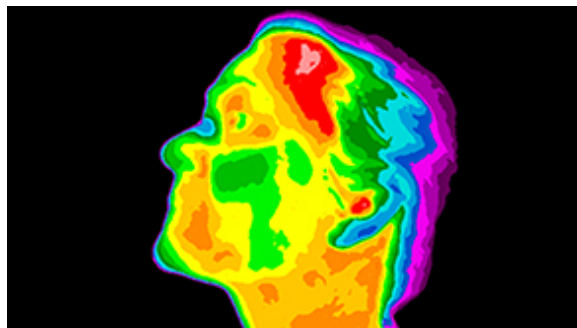
## College of Global Futures: Convocation

Celebrate our College of Global Futures graduates. For those who cannot attend in person, the ceremony will be available via [live stream](#).

**Tuesday, May 9, 2 p.m.**

**Grady Gammage Memorial Auditorium**

[Learn more](#)



## 23rd International Congress of Biometeorology

The theme for the 2023 International Congress of Biometeorology is Urban to Global Sustainability.

**May 14-17**

**Memorial Union**

[Register](#)

## Global Futures Viewbook

**We must rediscover our planet and our relationship with it.**

What does this mean, exactly? For the faculty, students, researchers and global partners of the Julie Ann Wrigley Global Futures Laboratory, it means a commitment to urgently exploring pathways to impactful solutions and decisions that address the challenges we have caused through resource extraction and thoughtless consumption as part of a relentless pursuit of “progress.”

We believe better is possible.

[Learn more](#)

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**#1 in the U.S.  
for global impact**

—Times Higher Education, 2021

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