NATIONAL ACADEMIES

Committee to Advise the U.S. Global Change Research Program Fall 2024 Meeting Agenda

MEETING OBJECTIVES

Al is a fast-moving topic, with rapidly evolving *tools.* An overall aim of this Advisory Committee discussion is to inform USGCRP's immediate needs *and* provide a framework and components for future iterations of these considerations.

- Support USGCRP's current development of AI guidelines for use in development of its scientific assessments through conversation and relevant examples and provide framework for revisiting guidelines on AI as approaches and tools advance. Identify opportunities and challenges for use of AI to support assessment development (including text and graphics)
- Identify needs and requirements from the assessment community to share with AI methods and tools developers to enable appropriate use of these tools in support of the scientific assessment process.

All times Eastern

WEDNESDAY, SEPTEMBER 25, 2024

10:00–10:20	 Welcome: Advisory Committee and USGCRP Julie Vano, Advisory Committee (AC) co-chair USGCRP: Al guidance for assessment authors: status, plans, useful guidance from this meeting
	Discussion Framing and Foundations Deb Niemeier, AC co-chair
10:20–10:40	Overview of key stages / components of USGCRP scientific assessment development process. <u>David Reidmiller</u>, Gulf of Maine Research Institute. USGCRP Advisory Committee
	Session Aim: Review primary components of the development process for USGCRP scientific assessments (with a focus on the NCA).
10:40–12:00	Overview of AI approaches and tools: AI landscape and tools for scientific assessments.
	 <u>Heng Xu</u>, University of Florida. Board member, National Academies Board on Human Systems Integration (BOHSI)
	Dan Weld, University of Washington, Allen Al
	 <u>Quynh Nguyen</u>, National Institute of Nursing Research (NINR)
	Alaa Al Khourdajie, Imperial College London
	Session Aim: Provide a common understanding and language for AI approaches and tools for use in developing scientific assessments, and examples of uses of AI for research and assessments.
12:00-1:00	LUNCH
1:00-4:00	Principles / Requirements for Authoritative, Useful, Trusted Scientific Assessments

Phil Mote, AC member

Session aim: Identify and discuss *principles and values* to be considered and advanced for authoritative scientific assessments that are useful, equitable, and trusted; and how these principles inform AI selection and use. Provide examples of how others have identified key principles in their work and used those principles to inform AI (and other) applications and guidelines.

1:00–1:30 Overview and considerations.

- Katie Shilton, University of Maryland
- Lily Xu, Oxford University
- <u>Ann Bostrom</u>, University of Washington
- **1:30–3:00** Small group discussions: breakout sessions, breakout reporting Sarah Fortner, AC vice-chair
- 3:00–3:10 BREAK

3:10–4:00 Insights from other organizations, agencies

- Alison Appling, Janice Gordon, USGS
- Lauren Kmec, Science magazines
- <u>Tony Broccoli</u>, American Meteorological Society; Rutgers University

4:00–5:00 NASEM and USGCRP Program Updates, Upcoming Events, with Discussion

- National Academies. Report briefing: <u>Developing a Strategy to Evaluate the National Climate</u> <u>Assessment</u>. <u>Kai Lee</u>, Study committee chair
- USGCRP. USGCRP staff
- Next topics for Advisory Committee consideration

5:00 Adjourn Day 1

THURSDAY, SEPTEMBER 26, 2024

10:00–10:15 AI for USGCRP HISA Development: Day 1 Discussion Recap

10:15–12:15 Applications, Opportunities, Cautions for AI Use in Scientific Assessment Development

Sarah Fortner

Phil Mote

Phil Mote

Phil Mote

Small group discussions: key scientific assessment objectives and principles and potential AI applications for key assessment stages. What does the assessment community need from AI tool developers to take advantage of this technology? Reporting from breakout groups.

12:15–1:00 LUNCH

1:00–2:00 Group Discussion

Key takeaways from the meeting discussions and next steps related to meeting goals:

- Support USGCRP's current development of AI guidelines for use in development of its scientific assessments through conversation and relevant examples and provide framework for revisiting guidelines on AI as approaches and tools advance. Identify opportunities and challenges for use of AI to support assessment development (including text and graphics)
- Identify needs and requirements from the assessment community to share with AI
 methods and tools developers to enable appropriate use of these tools in support of the
 scientific assessment process.

2:00–2:30 Meeting Recap

Julie Vano

2:30 Adjourn Meeting