Jonathan Gilligan
Presenter

Marco Janssen
Panelist

Firouzeh Taghikhah
Panelist

Gilberto Montibeller
Panelist

Katherine Lacasse
Panelist

UPCOMING WEBINAR | Modeling Behavioral Change

LIVE WEBCAST
Modeling Behavioral Change in Socio-Environmental Systems
MON. 20 JUNE 2022, 15:00 –16:30 (EDT UTC -4)
MON. 20 JUNE 2022, 21:00 – 22:30 (CEST UTC +2)
TUES. 21 JUNE 2022, 05:00 – 06:30 (AEST UTC +10)

Registration is required. Register HERE.

Expanding the development and use of socio-environmental system (SES) models is critical to solving urgent problems situated at the human-nature interface. Substantial progress is being made, but modeling challenges associated with a range of diverse issues remain.

This is the fifth in a series of webcasts based on the 2020 article **"Eight grand challenges in socio-environmental systems modelling"** by Sondoss Elsawah and colleagues.

This webcast and panel discussion event is focused on the critical challenge of incorporating the human dimension in SES modeling. The webcast will present the state of the art in modeling behavioral change, fundamental scientific challenges, and promising research directions. The event is intended for practitioners and scholars who commission, sponsor, or use SES models.

It will begin with a pre-recorded presentation by Dr. Jonathan Gilligan, followed by a short talk from each panelist reflecting on the specific challenges and solutions for incorporating human dimension using case studies from their experience. Then an open discussion will follow. Viewers may post questions and comments.

PROGRAM
Welcome & Juneteenth Remembrance: Margaret Palmer, Director, SESYNC, USA
Introduction: Sondoss Elsawah, Associate Professor, University of New South Wales,

Canberra, Australia

Presentation: "Modeling Behavioral Change in Socio-Environmental Systems" (20 min.)
Jonathan Gilligan, Associate Professor and Associate Director for Research, Vanderbilt Climate Change Research Network, Vanderbilt University, USA

Panel Session: (Responses 7 min. per panelist)
Marco Janssen, Professor, Arizona State University, USA
Firouzeh Taghikhah, Research Fellow, The Australian National University, Australia
Gilberto Montibeller, Professor and Director of Professional and Executive Education at the Loughborough University, UK
Katherine Lacasse, Associate Professor, Rhode Island College, USA

Q&A: Presenters and panelists respond to questions from the participants (15 min.)
Open Discussion: (10 min.)

RESEARCH SPOTLIGHT | Research Yields Online Game & Book

SESYNC Researchers Develop Game That Challenges Users to "Survive the Century"

If you had the global platform to sway human opinion and behavior in the face of climate change—what would you do? What choices would you make when confronted with various political, environmental, and social scenarios? Would you invest in green technology and cut taxes? Would you be tempted to unleash your inner supervillain and spark WWIII? What if you blocked out the sun (just a little bit)? If you've never considered such questions before, an online game, developed by researchers from the National Socio-Environmental Synthesis Center (SESYNC), now gives you the opportunity to do so.

The game, called Survive the Century, places you as the senior editor of the world's most popular and trusted news organization—giving you the enviable power to set the news agenda and thereby shape global outlook and behavior. In the interactive story, presented in a choose-your-own-adventure style, users have the power to make choices that will determine how well—or how poorly—humanity adapts to climate change through the year 2100. It aims to help users imagine a range of possible climate futures and to remind us that the stories we tell ourselves and others have very real consequences for the future.

Developed by SESYNC researchers Sam Beckbessinger, Simon Nicholson, and Christopher Trisos (a former SESYNC postdoc), "Survive the Century" grew out of a 2019 SESYNC workshop. Since launching in 2021, the story has already been read over 20,000 times and was featured in publications like *New Scientist*, *Gizmodo,* and *Stories for Earth*. Recently, Survive the Century was published in a book format, featuring full-color illustrations by Annika Brandow and news stories from the future written by leading sci-fi writers. Survive the Century is a work of "climate fiction or 'cli-fi,'" informed by real science with consultation from more than 25 scientists, researchers, policy makers and subject-matter experts. Read more.

NEW PUBLICATIONS | SESYNC in the Journals

"Perspectives on confronting issues of scale in systems modeling." Published in *Socio-Environmental Systems Modelling* by Takuya Iwanaga, Patrick Steinmann, Amir Sadoddin, Derek T. Robinson, Val Snow, Volker Grimm, and Hsiao-Hsuan Wang. This paper resulted from the SESYNC Pursuit: Simultaneously managing scale and uncertainty using innovative

software design concepts in a tiered, system-of-systems modeling framework.

"Towards mapping biodiversity from above: Can fusing lidar and hyperspectral remote sensing predict taxonomic, functional, and phylogenetic tree diversity in temperate forests?" Published in *Global Ecology and Biogeography* by Aaron G. Kamoske, Kyla M. Dahlin, former SESYNC postdoc Quentin D. Read, Sydne Record, Scott C. Stark, Shawn P. Serbin, and Phoebe L. Zarnetske.

"River rhythmicity: A conceptual means of understanding and leveraging the relational values of rivers." Published in *People and Nature* by Sue Jackson, Elizabeth P. Anderson, Natalia C. Piland, Solomon Carriere, Lilia Java, and Timothy D. Jardine. This paper resulted from the Workshop: Social and Ecohydrological Science Connections for Environmental Flows.