2022 Call for Macroscopes

Background and Goals

The *Places & Spaces: Mapping Science* exhibit is designed to open people's minds and hearts to the value, complexity, and beauty of science and technology. We are inviting authors of interactive data visualizations, also called macroscopes, to submit their work for inclusion in the *Places & Spaces: Mapping Science* exhibit.

IMPORTANT DATES	
Submissions due:	Feb 15, 2022
Mapmakers notified:	Apr 1, 2022
Submit final entries:	May 30, 2022
Ready for display:	Aug 31, 2022

Macroscopes are software tools that help us focus on patterns in data that are too large or complex to see with the naked eye. The idea of the macroscope was explored in 1979 by Joël de Rosnay in a book titled *The Macroscope: A New World Scientific System* [1]. To meet the challenges posed by the rapidly increasing abundance, diversity, and complexity of information, de Rosnay proposed the macroscope, a tool for observing "what is at once too great, too slow, and too complex for our eyes."

Like microscopes and telescopes, macroscopes can startle us when we point them at objects we thought we already knew. Through their lens, we may see familiar structures in a new light or gain a fresh perspective on an old process. This year's call for submissions to the *Places & Spaces* exhibit celebrates the decidedly *scopic* feature of macroscopes. Simply put, we are looking for interactive visualizations that disrupt our old habits of seeing, that challenge our common patterns of perception in order that we might see something anew. To do so, they may use novel datasets and algorithms or employ innovative user interface designs.

Places & Spaces is a traveling exhibit that currently features 100 maps and 28 interactive macroscopes from a wide range of disciplines. Since 2005, the exhibit has traveled to 28 countries and appeared in various formats at over 382 venues and events, including the Davos Economic Forum, National Academy of Sciences, and the New York Public Library. News coverage has appeared in *Nature*, *Science*, *USA Today*, and *Wired*.

References

[1] de Rosnay, Joël. 1979. *The Macroscope: A New World Scientific System*. New York: Harper & Row.

Submission Details

Interactive data visualizations designed for desktop, mobile, touch-enabled, and/or large (e.g., tiled wall) devices are all welcome. To be incorporated into the exhibit kiosk, macroscopes must be 1) web-based, 2) touch-enabled, 3) allowed to run inside an iframe element, 4) have CORS enabled for http://idemo.cns. iu.edu, and 5) served over HTTPS. Macroscopes will be deployed on a 46" multi-touch 1920 x 1080 display running Ubuntu 20.04 LTS and Chrome 91. Each macroscope should be fully functional for at least two years. Macroscopes might be deployed using other hardware, please contact the curatorial team to discuss options. Macroscope authors should be available to work with the exhibit staff over a period of three months to prepare the macroscopes for public display and travel.

Each entry must be submitted by February 15, 2022, and needs to include:

- Title of macroscope
- Author(s) name, email address, affiliation, mailing address, and social media handles
- Link to online site that features the macroscope tool or to executable code
- Macroscope tool description (300 words max): user group and needs served, data used, data analysis performed, visualization techniques applied, and main insights gained. Please also outline the vision that this new macroscope embodies.
- References to relevant publications or online sites that should be cited, links to related projects or works
- Describe the impact your data visualization has had on public awareness, social policy, or political action.
- Submit entries via the link below
    - https://forms.gle/wPr5X16Cm5MwDb7c9

Review Process

Submissions will be reviewed and evaluated by the exhibit advisory board (listed below) in terms of their:

- Scientific rigor
- Value as a tool for data exploration
- Ability to provide new, actionable insights
- Relevance for a general audience

Final Submission

Authors of winning entries will be contacted by April 1, 2022 and invited to submit final entries by May 30, 2022. Each final entry consists of:

- Link to online site that features the macroscope tool or link to executable code. This must be a fully self-contained version of the macroscope that can operate without any outside links and without opening new windows.
- Biographies for all authors (100 words each)
- High resolution author portraits that are no smaller than 360 x 450 pixels, or 1.2” x 1.5” at 300 dpi.
- Signed copyright and reproduction agreement

Authors are welcome to use the expertise and resources of the exhibit curators and designers.
The macroscopes are expected to be ready for display by August 31, 2022.

Exhibit Advisory Board

- **Gary Berg-Cross**, Cognitive psychologist
- **Kevin Boyack**, President, SciTech Strategies Inc.
- **Donna Cox**, Advanced Visualization Laboratory, University of Illinois at Urbana-Champaign
- **Bonnie DeVarco**, Media X, Stanford University
- **Ingo Günther**, Karlsruhe University of Art and Design
- **Francis Harvey**, Cartography and Visual Communication, Leipzig University
- **Peter A. Hook**, Associate Law Librarian, University of Notre Dame
- **Vincent Lariviére**, Professor of Information Science, Universitè de Montrèal
- **Lev Manovich**, Computer Science, The Graduate
- **Elijah Meeks**, Chief Visualization Officer & Co-founder, Noteable
- **André Skupin**, Geography, San Diego State University
- **Olga Subirós**, Big Bang Data, Olga Subiros Studio
- **Stephen Uzzo**, Chief Scientist, New York Hall of Science
- **Caroline S. Wagner**, Wolf Chair in International Affairs, The Ohio State University
- **Benjamin Wiederkehr**, Interactive Things

Please feel free to send any questions you might have regarding the judging process to Todd Theriault (ttheriau@indiana.edu) and use the subject heading “Macroscope Inquiry.”