InnovationLab: A Data Ecosystems approach to Ethical AI for Biomedical and Behavioral Research

Apply Now >>

Developing social and technical approaches to defining and implementing ethics across the AI data ecosystem

Why and How to Apply

If you want to explore critical issues related to the ethical future of the AI data ecosystem and participate in a stimulating and open exchange with a diverse, multidisciplinary range of researchers, we invite you to submit an application. If applying, please be prepared to answer questions about yourself, your work experience, your research focus, and why you are interested in and qualified for the Innovations Lab. Applications will be reviewed by a content expert team and NIH staff. Research-related information will be kept confidential.

Apply Now >>

Application Deadline: February 14, 2022 at 5 pm ET

If you have questions or need additional information, please email our organizing team at jocelyn.tejeda@knowinnovation.com.

Join a 5-day virtual workshop to develop novel cross-disciplinary collaborations!

Applications are Due February 14, 2022 - 5 pm ET. Apply Today!

Overview

The National Institutes of Health's Office of Data Science Strategy (ODSS) seeks to build a multi-disciplinary community of stakeholders interested in the social implications of technology that can help bridge the gap between artificial intelligence (AI) and ethics in biomedicine to advance the NIH mission. By forging new collaborations among these cross-disciplinary groups, the NIH seeks to identify the benefits, risks, and future directions in biomedical AI that align with the public interest and ensure equitable health benefits for all communities. It is anticipated that the interdisciplinary collaborations formed during these events will result in new peer-reviewed publications and/or prepare teams for submitting proposals to NIH funding opportunities to further develop, refine, and test hypothesizes and develop original research project ideas. Click here to learn about related activities.

The event will be held online and will take place March 14-18, 2022 from 10:00 AM ET - 5 PM ET.

Applicants must commit to participating for the entire duration of the Innovation Lab if selected as a meeting participant.

There will also be some required prework and light background reading/viewing.

The Challenge

The AI data ecosystem consists of many elements from AI models and workflows, data repositories, data, metadata and the myriad ways they are sourced, computational infrastructures, and data generators, as well as many different stakeholders including researchers, data users, data re-users, data donors / human subjects, and model developers. Each element poses its own opportunity for putting ethics into practice; and each participant poses their own normative principles and ability to weigh ethical considerations. Increasingly, the ethical development and application of AI requires an integral understanding across multiple ecosystem elements, and the ability to address and honor the concerns of a multitude of stakeholders.

How do we develop social and technical approaches to defining, measuring, and implementing ethics across the ecosystem? What approaches can ensure robust assessment and control of AI models, data, and methodologies over time and as they are applied in new situations with regards to their ethical use?

A systems approach is needed to take into consideration the interrelated, interdependent elements of the AI data ecosystem and account for the fact that changing any one element may affect others. Attention is needed now to intentionally prepare for the ubiquitous use of AI in biomedical research and establish an ethical AI/data ecosystem.

The Innovation Lab

An Innovation Lab is an intensive, interactive, and free-thinking workshop on a particular topic, involving up to thirty diverse participants. It aims to stimulate thinking in promising new research approaches and theories at the intersection of artificial intelligence and machine learning, biomedical and behavioral research, and ethics. Participants will be expected to engage constructively in dialogue with each other, the facilitators, and the Subject Guides to develop collaborative research proposals. Collaboration will be encouraged, especially by bringing diverse minds together to embrace this challenge.

The Innovation Lab will run over five days starting at 10 am ET on Monday and concluding after final presentations on Friday. The approach of the Innovation Lab is not to discuss ideas that are already well developed but not yet published. Rather, the goal is to bring individuals from different disciplines together to interact and engage in free-thinking on first principles, to learn from one another and create an integrated vision for future research projects. It is expected that the sharing of these ideas would be encouraged within the Innovation Lab but their confidentiality would be respected outside the Innovation Lab. At the Lab, interdisciplinary teams will work together to ideate and develop a roadmap for how to tackle selected challenges in this field. Through the course of the five days, teams will form, pitch and refine plans (based on input from subject guides and other participants) for interdisciplinary pilot projects that advance scientific questions related to social and technical approaches to defining and implementing ethics across the ecosystem.

Who Should Apply

This Innovation Lab will bring together people expert in behavioral and biomedical research, IRB review, data and technology standards, data repositories, data management, AI model development, computer science, computational tools, social science, ethics, tech law and data sharing policy, patient advocacy, and community engagement interested in forming new collaborations and developing innovative approaches to address ethical opportunities and challenges arising in the AI

data ecosystem. It is anticipated that the inter-disciplinary collaborations formed during these events will result in new peer-reviewed publications or prepare teams for submitting proposals to NIH funding opportunities to further develop, refine, and test hypothesizes and develop original research project ideas.

Approximately 30 applicants will be selected to participate in the Innovation Lab on the basis of the interests, expertise, and other characteristics solicited in the application. Most participants are expected to be academic faculty, industry and legal experts, researchers, and program directors, from early to senior career stages. Original thinkers from outside academia (e.g., industry) or earlier career stages are also encouraged to apply. When selecting participants, consideration will be given to balance across a range of diverse disciplinary experience and expertise. All participants should be willing to engage in frank disclosure and assessment of ideas in a collegial and professional fashion. To facilitate open sharing, all meeting discussions will be considered a private communication and not to be shared outside of the meeting, unless approved by the contributor. NIH staff will review applications and select the final list of participants. All research-related application information will be kept confidential.

Meeting Outcomes

New collaborative teams will form around promising research ideas and iteratively develop the concepts into realizable research projects. We encourage teams to develop applications for NIH funding opportunities and NIH staff are available to assist with identifying appropriate opportunities.