

More details on PLC:

Research Ethics: Integrating IRB and Ethics Pedagogy for Emergent and Applied Research Areas

Shamsnaz Bhada, Assistant Professor, ECE/Systems Engineering
Information Mobility Justice

“Smart Cities” use data and sensors to try to bring “order” to human-organized spaces. Yet a number of white, middle-class assumptions are baked into many of these data collection and research methods, creating a mismatch with actual community needs. I will revise a class in systems engineering to consider the ethics of community focused research that is not exploitative in an engineering design approach. This will involve building tools and mechanisms for early research design processes to identify cultural semantics and nuances that shape research protocols.

Jennifer deWinter, Professor, Humanities & Arts and Interactive Media & Game Development
Cyborg Bodies: Ethics in Augmented and Virtual Realities

This project will create ethics education for mixed-reality classes and projects with a particular focus on Augmented Reality and Mixed Reality. More than transferring IRB protocols from testing computer programs historically deployed on traditional screens, a research ethics in mixed reality must account for the complexity of human biology, from sex and weight to vertigo and access. Classroom lesson plans and IRB modules will introduce and ask students to think through important questions about access, embodiment, racial and gender discrimination, and so forth.

Ruth McKeogh, Director of Human Subjects Research and Academic Programs
IRB as an Ethical Design Partner

The Institutional Review Board (IRB) at WPI “promotes and supports efforts to conduct innovative research at WPI while also helping researchers understand and comply with the ethical guidelines and regulatory requirements for research involving human subjects.” There are ~ 2000 undergraduate students engaged in human-centered technologically innovative research each year. The goal of my project will be to incorporate human subject ethics up-front during the research design stage, through creation of learning modules and IRB materials such as templates and scripts.

Gillian Smith, Associate Professor, CS/IMGD
Training Justice-Oriented, Ethical AI Researchers

There are high profile, newsworthy examples of “AI Gone Wrong” on a near-daily basis, always rooted in the failure of our field to train students and researchers to think critically about the potential impact of their work and to integrate ethics into the research process. In this PLC project, I will develop training modules for students who intend to conduct human subjects research with AI systems, who need help thinking through not just short-term risks to participants, but also the potential long-term societal impact of their research.

Sarah Stanlick, Assistant Professor, Integrative & Global Studies
Beyond the Common Rule: Ethics in Project-Based Learning at WPI

The purpose of this project is to examine the ways in which federal rules of human subjects research both support and limit the education of IQP students on ethical implication of global, place-based research. The outcome of this work will be modules (IRB for Social Scientists and

Humanists) that will extend the understanding of the ethical implications of their work and that can be shared among ID 2050 instructors and beyond for building in ethical training in the project-based classroom.

Yunus Telliel, Assistant Professor, Humanities & Arts

From 'Research Ethics' to 'The Ethics of Research': Transformative Learning in Engineering Graduate Research

From robotics, to gene editing techniques, to AI, current technological advances have necessitated a rethinking of the traditional boundaries drawn between technology and society. As such, engineers need to engage with ethical issues in the design, development, implementation, maintenance, and recycling of technological systems. I will develop three workshops on the ethics of engineering research for graduate students, creating a learning environment in which they will move beyond narrow definitions of 'research ethics' (IRB protocols, questions of liability, etc.) to a broader understanding of the societal impact of engineering research—i.e., 'the ethics of research'.