CENTER FOR NEUROTECHNOLOGY – NEUROETHICS THRUST

The **Neuroethics Thrust** is a part of the **Center for Neurotechnology** (CNT). The National Science Foundation funded the CNT as an Engineering Research Center (ERC) in 2011 as a multi-institution center (UW, MIT, SDSU) dedicated to advancing research in neural engineering, particularly on developing bi-directional implantable brain-computer interface devices. Neuroethics and members of the Department of Philosophy have been a part of the CNT since its inception. **Sara Goering** has led the Neuroethics Thrust within the CNT since 2012. **Eran Klein**, a neurologist and affiliate professor in the Department of Philosophy, joined the CNT in 2013 to help coordinate educational, research, and ethics engagement activities of the CNT. Undergraduate, graduate, and post-doctoral students in the Philosophy Department have been key contributors to the Neuroethics Thrust.

MISSION

The Neuroethics group studies ethical issues arising from emerging neural engineering technologies. Issues include questions of privacy, security, moral and legal responsibility, changes in our understanding of agency, shifts in personal identity, and social justice. We have a commitment to the inclusion of disability perspectives in the design of devices intended to benefit people with disabilities. Our group does both normative theoretical research and writing, and empirical studies such as focus groups with intended end-users.

Our work is constituted by three principal activities:

- **Education and outreach**
- **Research and scholarship**
- **Neuroscience and ethics engagement**

NEWS

Check out some of our recent activities in the **Neuroethics Group news feed**.

OUR PEOPLE

CORE FACULTY

*Sara Goering*, Lead (UW Philosophy, [CNT profile & research](https://phil.washington.edu))

Sara Goering is Associate Professor of Philosophy at the University of Washington, Seattle, and directs the Neuroethics Thrust in the Center for Neurotechnology (CNT). She is also a member of the Program on Ethics, the Disability Studies Program, and adjunct faculty in the Bioethics & Humanities Department. Her work in the Neuroethics Thrust focuses on issues of agency and identity in relation to neural technology (both DBS and BCI), and emphasizes the importance of engagement with disabled people, who are often the intended end-users of the technology.
Eran Klein (UW Philosophy, CNT profile & research)
Eran Klein is a neurologist specializing in dementia at Oregon Health and Sciences University (OHSU) and the Portland VA Health Care System (PVAHCS). He is part of the Neuroethics thrust at the NSF Center for Neurotechnology (CNT) at the University of Washington. He works at the intersection of neurology, neuroscience, and philosophy.

Judy Illes (UBC, CNT profile & research)
Judy Illes is Professor of Neurology and Canada Research Chair in Neuroethics at the University of British Columbia, Director of the National Core for Neuroethics at UBC, affiliate appointment in the Department of Computer Science and Engineering at the University of Washington and has been an advisor to the Center for Neurotechnology (CNT) since its inception. Dr. Illes’ research focuses on ethical, legal, social and policy challenges specifically at the intersection of the neurosciences and biomedical ethics. This includes studies in the areas of incidental findings and functional neuroimaging in basic and clinical research, addiction neuroethics, stem cells and regenerative medicine, dementia, neurodevelopmental disorders, and the commercialization of cognitive neuroscience.

Joseph Stramondo (SDSU) (CNT profile)
Joseph Stramondo is an Assistant Professor of Philosophy and Associate Director of the Institute for Ethics and Public Affairs at San Diego State University, as well as core faculty for the Neuroethics Thrust. His research is located at the intersection of bioethics and philosophy of disability, with his current project for the Neuroethics Thrust being a conceptual analysis of the distinction between curative and assistive technology, using BCI as a hard test case.

RESEARCH ASSOCIATE

Ishan Dasgupta
Ishan Dasgupta is a post-doctoral research associate in the Department of Philosophy and the Center of Neurotechnology at the University of Washington. He works at the intersection of law, ethics, and public health policy as it relates to emerging technology. His past work has focused on ethical issues surrounding induced pluripotent stem cells, inclusion of pregnant women in biomedical research, and the use of tissue samples in genetics research. At UW, Ishan will focus on issues of agency in relation to neurotechnology.
Andreas Schönau

Andreas Schönau is a post-doctoral Research Associate in the Department of Philosophy and Center for Neurotechnology at the University of Washington. His past research focused on the clarification of conceptual theories and empirical methods in philosophical and neuroscientific research, the interdisciplinary combination of their respective insights, and the generation of conclusions towards understanding the phenomenon of free will from an action-theoretical perspective. At UW, he continues working on agency-related issues in the intersection of Neuroscience and Philosophy.

AFFILIATE

Frédéric Gilbert (University of Tasmania)

Frederic Gilbert, PhD, is a philosopher conducting research on the ethical issues raised by novel implantable neurotechnologies, in particular experimental use of Brain Computer Interfaces (BCI).

GRADUATE STUDENTS

Marion Boulicault (MIT)

Marion Boulicault is a PhD student in the Department of Linguistics and Philosophy at MIT. Before coming to MIT, she worked for a number of years in environmental policy and completed a Master's degree in the History and Philosophy of Science at the University of Cambridge. Her research draws on work in feminist theory, disability studies, science and technology studies, and analytic philosophy of science to explore the role of values and perspectives in the creation of scientific knowledge.

Tim Brown (UW Philosophy)

Tim Brown is a PhD student in the Department of Philosophy and a Research Assistant in the UW Biorobotics lab under Dr. Howard Chizeck. His research focuses on the experiences of people using deep brain stimulation, brain computer interfaces, and other neural technologies. In particular, his work explores the issues of personal autonomy, identity, and security that can arise as people learn to incorporate neural technologies into their lives.
Darcy McCusker (UW Philosophy)
Darcy McCusker is a PhD student in the Department of Philosophy.

Michelle Pham (UW Philosophy)
Michelle Pham is a PhD candidate within the UW Department of Philosophy. Her dissertation focuses on the different roles of consensus in science, and its implications in the public sphere. She's been a CNT Neuroethics Fellow for two years. Her work within the CNT has focused on researcher-end user relationships and development of social and ethical guidelines in neural engineering.

Paul Tubig (UW Philosophy)
Paul Tubig is a PhD student in the Department of Philosophy. His general research is in social philosophy, political philosophy and biomedical ethics - with a special interest in questions of justice related to public health. As a CNT fellow, Paul is working to develop tools to facilitate ethics engagement between neural engineers and non-scientists.

Erika Versalovic (UW Philosophy)
Erika Versalovic is a PhD student in the Department of Philosophy. Her work is on relational agency and she will be the RA for an NIH RF1 grant focused on BCI and agency.

FORMER MEMBERS OF THE NEUROETHICS THRUST

Raney Folland
Alicia Intriago (now labor litigator at Greenberg Traurig, Sacramento, CA)
Melissa Liu (finishing PhD in anthropology at UW)
Matthew Sample (now postdoc at Institut de Recherches Cliniques de Montréal (IRCM)
Laura Specker Sullivan (now Assistant Professor at the College of Charleston)
Anjali Truitt (now Senior Project Manager, Health Partners, Minneapolis, MN)

CURRENT AND FORMER UNDERGRADUATE AND/OR SUMMER RESEARCH ASSISTANTS
Jenan Alsarraf (UW)
Sami Ayele (high school student; now at Johns Hopkins University)
Melissa Diamond (UW)
Hannah Earhart (summer research education for teachers)
Alex Franke (UW; now at Washington State University medical school)
Cohavit Gil (UMass Amherst)
Mikalia Jackson (Spelman College)
Anders Levell (UW)
Hannah Martens (UW)
Phoenix Meadowlark (UW)
Christopher Pham (UW)
Sierra Simmerman (UW)
Hale Soloff (Urisinus University; now at Emory University neuroscience graduate program)
Ian Stevens (Northern Arizona University)