Art + Brain Lab

Art and Brain EEG

In Winter 2013, DXARTS was chosen as the inaugural recipient of the Bergstrom Award from the College of Arts & Sciences to create the *Art and the Brain Lab*. The lab enables students and faculty, from both art and natural science backgrounds, to conduct hands-on research, fostering artistic collaborations arising from investigations at the intersection of neuroscience and digital art.

The idea for the proposal arose from a successful Fall 2013 DXARTS interdisciplinary seminar course entitled *Art and the Brain*, which joined art practice (Professor James Coupe), neuroscience (Professor Eberhard Fetz), and the history and theory of art-science collaboration (Professor Edward Shanken). For a more in-depth look at the course, see the Arts & Sciences Perspectives article "This is Your Brain on Art."

The first phase of development will allow the lab to acquire core equipment enabling faculty and students to build EEG data-driven responsive artworks and environments. These interactive systems will consist of feedback loops between neural activity in users and variations in multimedia output. Changes in specific parameters of a user's brain activity will determine changes in the artwork and, conversely, changes in the artwork may also trigger changes in the user's brain activity. By studying such interactive systems, the lab hopes to facilitate research with the potential for expanding artistic creation, interaction design, human-computer interface development, and neuroscientific knowledge.

The Bergstrom Award for Art and Science was established for the purpose of supporting projects or activities at the UW that enhance the student experience and bridge the intersection between art and science. Learn more about the award and the lab in our news archive.