Diverse and Complex Multimodal Neuroimaging Data

Open Platforms and Standards

OceanX
Open Collaborative Ecosystem for Advanced Neuroimaging Exploration

Collaborative and Diverse Community of Faculty and Students

Flexible and Scalable Ecosystem for Collaboration and Exploration

Open: OceanX will optimally leverage open platforms and solutions for data storage, management, and processing, and it will contribute to ongoing national and international open-source efforts in the area of neuroimaging data science.

Collaborative: OceanX will create a collaborative environment to make use of and develop standardized data structures and processing pipelines with support for multimodal datasets, metadata, and provenance information.

Ecosystem: OceanX will serve as a unique testbed for discovery, collaboration, and training in the neuroimaging data sciences. It will facilitate the use of complex neuroimaging datasets in both undergraduate and graduate data science courses and training endeavors. It will enable research aimed at determining the environments, processes, and methods that best foster discovery and collaboration.

Advanced: OceanX will be designed to enable the development and application of state-of-the-art analysis algorithms and computational frameworks. It will be configured to scale and adapt to the evolving needs of the community.

Neuroimaging Exploration: OceanX will enable exploration of a rich diversity of neuroimaging datasets, with an initial focus on anatomical and functional MRI data, including measures of cortical anatomy, functional connectivity, cerebral blood flow, white matter tractography, and simultaneously acquired EEG.