CANDI STORE: AN INFRASTRUCTURE FOR NEUROIMAGE STORAGE AND PROCESSING

Christian Haselgrove, Steven Hodge, Pallavi Rane, Jean A. Frazier, David N. Kennedy

Division of Neuroinformatics, Department of Psychiatry, University of Massachusetts Medical School, Worcester, MA

Contact Information: David.Kennedy@umassmed.edu, (508) 856-8228

Abstract:

In order to support the local data management need for neuroimaging researchers at UMass Medical School within the Child and Adolescent NeuroDevelopment Initiative (CANDI) and beyond, we have implemented a XNAT (xnat.org) instance called CANDIStore. XNAT is an open source imaging informatics platform, developed by the Neuroinformatics Research Group at Washington University. It facilitates common management, productivity, and quality assurance tasks for imaging and associated data. Located securely within the medical school firewall, CANDIStore offers a comprehensive set of image management tools. Users can be authenticated based against their UMass credentials, create private projects, manage research team access, DICOM 'push' directly to CANDIStore from the MRI imaging console, manage demographic and additional subject variables, and perform automated analysis and processing pipelines. CANDIStore is an essential adjunct to the daily operations of neuroimaging research.