

Engagement and education in Big Data, reproducible neuroscience

Cloud computing made easy

Accelerate discovery by analyze brain data on any cloud resources.

New publishing paradigm

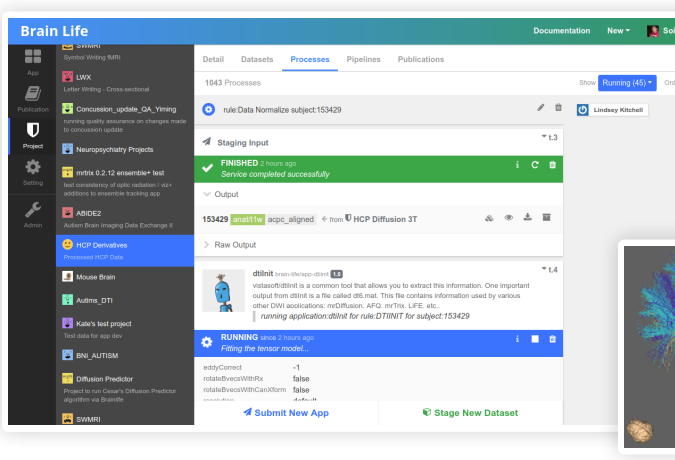
Share data and analyses by publishing all your research assets in a cloud platform.

Advance Reproducibility

Upload and analyze data while automatically tracking all your important analyses steps.





























































































































































































































































Analyze and visualize.

Try the Brainlife Apps. Apps are open cloud services. Use the Apps to easily analyze data, monitor progress, visualize your results and share them with other users.



Upcycle data and code.

Upload new data or access available data to implement innovative studies and analyses. Data and Apps are conveniently organized into open or private projects shared among users.

	Documentation	New	👤 Sachi Hayashi																																																																																		
<p>Project to run Causal & Diffusion Predictor ontrain via Brainte</p> <p>SWMRI</p> <p>PUBLIC</p> <p>Public Test Object Used for our users to test Brainte internally</p> <p>HCP Diffusion 3T Main: Conesense Project Datasets + Pustun MRI 3T (120 subjects data-set)</p> <p>HCP Diffusion 7T Main: Conesense Project Datasets + Pustun MRI 3T (184 out of 1200-subjects)</p> <p>NI National Institute Mental Institute Product - loaded by NID</p> <p>HCP Diffusion 3T Rested HCP 3T subjects related</p> <p>OD OI Open Diffusion Data and Denoiser A pipeline for denoising of diffusion preclinical imaging, with multi-scale physics and algorithmic development.</p> <p>Openness / OS/OS0030 CA Causal & Neurophysiologic Imaging LASS Study</p>	<div> <div>Details</div> <div>Subjects</div> <div>Processes</div> <div>Pipelines</div> <div>Publications</div> </div> <p>841 Subjects 10071 Datasets</p> <table> <thead> <tr> <th>SUBJECT</th><th>DATATYPE</th><th>DESCRIPTION</th><th>CREATE DATE</th><th>TAGS</th></tr> </thead> <tbody> <tr> <td rowspan="10">A0000326</td><td>  </td><td>output from Fwseuor</td><td>9/30/2017, 1:30:49 PM</td><td></td></tr> <tr> <td> </td><td>session DS2 task rest acqCAP</td><td>10/20/2016, 12:42:25 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task rest acq45</td><td>10/20/2016, 12:42:05 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task rest acq1400</td><td>10/20/2016, 12:41:32 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task CHECKERBOARD</td><td>10/20/2016, 12:41:24 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task CHECKERBOARD</td><td>10/20/2016, 12:41:14 PM</td><td>  </td></tr> <tr> <td> </td><td>DS2</td><td>10/20/2016, 12:40:30 PM</td><td> </td></tr> <tr> <td> </td><td>DS2</td><td>10/20/2016, 12:40:48 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task BREATHHOLD ac</td><td>10/20/2016, 12:40:48 PM</td><td></td></tr> <tr> <td> </td><td>session DS2 task rest acqCAP</td><td>10/20/2016, 12:43:32 PM</td><td>  </td></tr> <tr> <td rowspan="10">A0000399</td><td> </td><td>session DS2 task rest acq1400</td><td>10/20/2016, 12:43:04 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task CHECKERBOARD</td><td>10/20/2016, 12:42:59 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task CHECKERBOARD</td><td>10/20/2016, 12:42:51 PM</td><td>  </td></tr> <tr> <td> </td><td>DS2</td><td>10/20/2016, 12:42:35 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task BREATHHOLD ac</td><td>10/20/2016, 12:42:31 PM</td><td></td></tr> <tr> <td> </td><td>output from Fwseuor</td><td>9/30/2017, 1:35:29 PM</td><td></td></tr> <tr> <td> </td><td>session DS2 task rest acqCAP</td><td>10/20/2016, 12:45:54 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task rest acq45</td><td>10/20/2016, 12:44:37 PM</td><td>  </td></tr> <tr> <td> </td><td>session DS2 task rest acq1400</td><td>10/20/2016, 12:44:08 PM</td><td>  </td></tr> <tr> <td> </td></tr></tbody></table>	SUBJECT	DATATYPE	DESCRIPTION	CREATE DATE	TAGS	A0000326	  	output from Fwseuor	9/30/2017, 1:30:49 PM		 	session DS2 task rest acqCAP	10/20/2016, 12:42:25 PM	  	 	session DS2 task rest acq45	10/20/2016, 12:42:05 PM	  	 	session DS2 task rest acq1400	10/20/2016, 12:41:32 PM	  	 	session DS2 task CHECKERBOARD	10/20/2016, 12:41:24 PM	  	 	session DS2 task CHECKERBOARD	10/20/2016, 12:41:14 PM	  	 	DS2	10/20/2016, 12:40:30 PM	 	 	DS2	10/20/2016, 12:40:48 PM	  	 	session DS2 task BREATHHOLD ac	10/20/2016, 12:40:48 PM		 	session DS2 task rest acqCAP	10/20/2016, 12:43:32 PM	  	A0000399	 	session DS2 task rest acq1400	10/20/2016, 12:43:04 PM	  	 	session DS2 task CHECKERBOARD	10/20/2016, 12:42:59 PM	  	 	session DS2 task CHECKERBOARD	10/20/2016, 12:42:51 PM	  	 	DS2	10/20/2016, 12:42:35 PM	  	 	session DS2 task BREATHHOLD ac	10/20/2016, 12:42:31 PM		 	output from Fwseuor	9/30/2017, 1:35:29 PM		 	session DS2 task rest acqCAP	10/20/2016, 12:45:54 PM	  	 	session DS2 task rest acq45	10/20/2016, 12:44:37 PM	  	 	session DS2 task rest acq1400	10/20/2016, 12:44:08 PM	  	
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Register your code, algorithms and visualization tools as Apps. Increase the impact of your work by letting collaborators or the whole users community easily reuse your research products.

Increase the impact of your work by using an innovative publishing mechanism. Embed all your research assets, data and analyses, in a reusable cloud format.

Brain Life

App

Publication

Project

Setting

Admin

Documentation

New

OSD

Open Diffusion Data Derivatives

Reproducible Neuroimaging Via Open Cloud Services: Data Upcycling To Advance Discovery In Network Neuroscience

We describe a repository of brain connectome data and data derivatives called OSD (Open Diffusion Data Derivatives).

NEUROIMAGING

CONNECTOMICS

WHITE MATTER

NETWORK SCIENCE

TRACTOGRAPHY MATCHING

MACHINE LEARNING

WEB SERVICES

OPEN SCIENCE

REPRODUCIBILITY

Details

Datasets

Apps

CREATED ON

11/13/2017

AUTHORS

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DETAIL

This data set is part of the Open Diffusion Data Derivatives (OSD). It contains diffusion-weighted and T1 contrast weighted magnetic resonance imaging data and multiple associated derivatives. Namely, voxels reconstruction models, whole-brain tractograms, segmented white matter tracts, and connectivity matrices (connectomes). Data derivatives were generated using standard methods for data processing, tractography, and structural connectome construction. The OSD repository is also published with a set of static data files organized as a Brain Imaging Data Structure (BIDS), that can be conveniently downloaded from the web browser or unix terminal from <http://osd.brainlife.io>. The static files are also accompanied by files embedded in the www.brainlife.io platform, associated with a set of open services that exploit cloud computing technology to allow reproducing the data processing workflow used to generate the OSD core data set. The OSD open services allow investigators to run the same connectome mapping pipelines on new, user-uploaded, fMRI data. Files and services can be found at <https://doi.org/10.25663/ob.3>.

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Brainlife reaches out beyond neuroscience. It allows computer scientists, statisticians and engineers interested in brain data to use the data to publish their methods and get credit for their work.



Apps Gurus

Data Wizards

Statisticians and data scientists can use available data and derivatives to gather new insights into individuality and variability in human populations.

Mission

Neuroscience is engaging at the forefront of science by dissolving disciplinary boundaries and promoting transdisciplinary research. This process can facilitate discovery by convergent efforts from theoretical, experimental and cognitive neuroscience, as well as computer science and engineering.

To assure the success of this process, the current lack of established mechanisms to promote open sharing data, software and scientific results must be overcome. Promoting open software and data sharing has become paramount to addressing the problem of scientific reproducibility.

We address challenges in the neuroscience of open sharing and reproducibility by providing integrative mechanisms for publishing data, and algorithms while embedding them with computing resources to impact multiple scientific communities.

A global multidisciplinary collaboration

Sixty-six collaborators from global scientific communities contribute to the project by providing data, applications, technology and products to advance understanding the human brain.

🌐 Partners and collaborators

Beijing Normal University • Boston University • Fondazione Bruno Kessler • Harvard Medical School • Illinois Institute of Technology • Indiana University Bloomington • Indiana University School of Medicine • Indiana University-Purdue University Indianapolis • Indiana University Bloomington • Italian Institute of Technology • Massachusetts Institute of Technology • National Institute of Information and Communication Technology • Northwestern University • Stanford University • The Jikei University School of Medicine • The Rockefeller University • The University of Washington • University Medical Center Groningen • University of Michigan • University of Oxford

🔬 Research areas and applications

Cognitive Neuroscience and Learning • Systems Neuroscience • Medical Sciences • Database for neuroimaging data management • Neuroinformatics • Neuroradiology • Biomedical Engineering • Scientific community tools • Information technology • Network neuroscience • Cognitive neuroscience of language • Statistics • Aging & social cognition research • Brain development • Psychological and brain sciences • Vision science and sports concussion research • Informatics and computing • Electrical engineering • Optometry • Computer science • Clinical neuroscience • Neuroimaging and radiology • Alzheimer disease and aging research • Rodent models • Computer Science • Computational neuroanatomy • Decision making and Neuroeconomics • Traumatic brain imaging • Visual brain development • Visual neuroscience and development • Ophthalmology • Systems neuroscience • Data Science • Big data and statistics • Clinical visual neurosciences

“ The Brainlife platform is phenomenal. A great idea, great execution. It reminds me of Wikipedia when it started... now it is essential to almost everyone. Tatiana Wolfe, The Ohio State University.”

The Brainlife team



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Project Director



Lindsey Kitchell
Graduate Student



Brent McPherson
Graduate Student



Bradley Caron
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Lead Software Engineer



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Home

- Documentation
- O3D
- Legacy Workflows

Visualization

- Tract Viewer Demo

Brainlife

- Apps
- Projects
- Publications

