



CCN | Center for  
Cognitive  
Neuroscience  
at Dartmouth



cbbs  
center for behavioral  
brain sciences

# DataLad – decentralized data distribution for consumption and sharing of scientific datasets

Yaroslav O. Halchenko<sup>1</sup>, Michael Hanke<sup>2</sup>

<sup>1</sup> Dartmouth College, Hanover, NH, USA

<sup>2</sup> Otto-von-Guericke University, Magdeburg, Germany

CRCNS 2016, Paris, France 2016



<http://datalad.org>



<http://www.pymvpa.org>



<http://Neuro.Debian.net>



<http://ducredit.org>

Visit DataLad booth #4113 at SfN 2016, San Diego

# Acknowledgments

centerforopenneuroscience.org/whoweare#michael\_hanke\_

Center for Open Neuroscience

Centroids

Collaborators

Michael Hanke  
Nikolaas N. Oosterhof  
Matthew Brett  
Joey Hess  
Benjamin Poldrack

Emeritus

Collaborating projects

Partners

## Michael Hanke



University of Magdeburg,  
Germany



Formerly a visiting post-doctoral research at Dr.Haxby's lab, now a J.-Prof., one of the first Psychoinformaticians, official Debian developer, member of INCF neuroimaging task force -- he is an old-time collaborator and a lead of [PyMVPA](#), [NeuroDebian](#), [DataLad](#) and other projects.

## Joey Hess



Independent Guru



Joey's own introduction "*I'm Joey Hess and I write programs*" conceals his paramount role in establishing the core of the [Debian](#) distribution ([debhelper](#), [debian-installer](#), [debconf](#), [pristine-tar](#), etc.) and his work on variety of other software projects, such as [git-annex](#) which we rely upon in the [DataLad](#) project.

## Benjamin Poldrack



University of Magdeburg,  
Germany

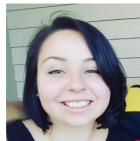


Works on the [DataLad](#) project.

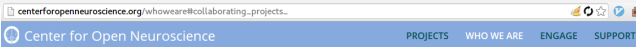
## Interns (Dartmouth)

Debanjum

Gergana



# Acknowledgments



## Centroids

Yaroslav O. Halchenko  
James V. Haxby  
Matteo Visconti di Oleggio  
Castello  
Samuel Nastase

## Collaborators

Michael Hanke  
Nikolaas N. Oosterhof  
Matthew Brett  
Joey Hess  
Benjamin Poldrack



debian.org



1429999

## Collaborating projects



Federal Ministry  
of Education  
and Research

## Partners



International Neuroinformatics  
Coordinating Facility



The source for neuroinformatics tools & resources  
Neuroimaging data repository  
Cloud computing environment

Houston, we've got a problem...

Data is a 2nd-class citizen within software platforms

# Why?

- tarballs are **inefficient** distribution format
- **absent versioning** of data

*derived and/or curated data does change!*

# Why?



ye!

A STORY TOLD IN FILE NAMES:

Location: C:\user\research\data

Filename	Date Modified	Size	Type
data_2010.05.28_test.dat	3:37 PM 5/28/2010	420 KB	DAT file
data_2010.05.28_re-test.dat	4:29 PM 5/28/2010	421 KB	DAT file
data_2010.05.28_re-re-test.dat	5:43 PM 5/28/2010	420 KB	DAT file
data_2010.05.28_calibrate.dat	7:17 PM 5/28/2010	1,256 KB	DAT file
data_2010.05.28_huh??.dat	7:20 PM 5/28/2010	30 KB	DAT file
data_2010.05.28_WTF.dat	9:58 PM 5/28/2010	30 KB	DAT file
data_2010.05.29_aaarrgh.dat	12:37 AM 5/29/2010	30 KB	DAT file
data_2010.05.29_#\$_@*&!!.dat	2:40 AM 5/29/2010	0 KB	DAT file
data_2010.05.29_crap.dat	3:22 AM 5/29/2010	437 KB	DAT file
data_2010.05.29_notbad.dat	4:16 AM 5/29/2010	670 KB	DAT file
data_2010.05.29_woohoo!.dat	4:47 AM 5/29/2010	1,349 KB	DAT file
data_2010.05.29_USETHISONE.dat	5:08 AM 5/29/2010	2,894 KB	DAT file
analysis_graphs.xls	7:13 AM 5/29/2010	455 KB	XLS file
ThesisOutline!.doc	7:26 AM 5/29/2010	38 KB	DOC file
Notes_Meeting_with_ProfSmith.txt	11:38 AM 5/29/2010	1,673 KB	TXT file
JUNK...	2:45 PM 5/29/2010		Folder
data_2010.05.30_startingover.dat	8:37 AM 5/30/2010	420 KB	DAT file

Type: Ph.D Thesis Modified: too many times Copyright: Jorge Cham www.phdcomics.com

# Why?

- tarballs are **inefficient** distribution format
- **absent versioning** of data

*derived and/or curated data does change!*

- code version control systems are **inadequate** for data

*duplication, monolithic storage, etc.*

- **absent generic data distributions**

*no efficient ways to install and upgrade*

- **cacophony** of authorization schemes, interfaces, protocols

- **absent data testing**

*data can and **does** have bugs (see e.g. Halchenko, 2012;  
Rohlfing, 2013)*

- **difficulty to share** new or derivative data

*shareable? some is not! where to host? how to "link" back?*

## DataLad's goal

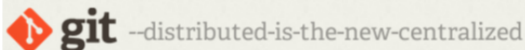
## DataLad's goal

**Managing data should be as easy as managing code and software**

# Welcome [datalad.org](https://data-lad.org)

[DataLad](#)[About](#)[Development](#)[Articles](#)[Archives](#)

← → ↻ 🏠




Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

## Using Git ...

Git is **easy to learn** and has **the most popular state-of-the-art distributed version control system** **performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.

[Visit git website »](#)

 [Learn Git in your browser for free with Try Git.](#)

DataLad aims to provide access to scientific data available from various sources (e.g. lab or consortium web-sites such as Human connectome; data sharing portals such as OpenfMRI and CRCNS) through a single convenient interface and integrated with your software package managers (such as APT in Debian). Although initially targeting neuroimaging and neuroscience data in general, it will not be limited by the domain and we would welcome a wide range of contributions.

# DataLad demo1 - from search to get

File Edit View Search Terminal Help

```
2 14868.....:Fri 21 Oct 2016 09:57:10 PM EDT:.  
(git)hopa:~/datalad[master]  
$> █
```

# DataLad demo1 - from search to get

File Edit View Search Terminal Help

```
2 14868.....:Fri 21 Oct 2016 09:57:10 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> datalad search Haxby
```

```
labs/haxby
```

```
labs/haxby/raiders
```

```
openfmri/ds000105
```

```
2 14871.....:Fri 21 Oct 2016 09:57:54 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> █
```

# DataLad demo1 - from search to get

File Edit View Search Terminal Help

```
2 14868.....:Fri 21 Oct 2016 09:57:10 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> datalad search Haxby
```

```
labs/haxby
```

```
labs/haxby/raiders
```

```
openfmri/ds000105
```

```
2 14871.....:Fri 21 Oct 2016 09:57:54 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> datalad search Haxby | xargs datalad install
```

```
3 installed items are available at
```

```
<Dataset path=/home/yoh/datalad/labs/haxby>
```

```
<Dataset path=/home/yoh/datalad/labs/haxby/raiders>
```

```
<Dataset path=/home/yoh/datalad/openfmri/ds000105>
```

```
2 14872.....:Fri 21 Oct 2016 09:58:14 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> █
```

# DataLad demo1 - from search to get

```
File Edit View Search Terminal Help
```

```
(git)hopa:~/datalad[master]
```

```
$> datalad search Haxby
```

```
labs/haxby
```

```
labs/haxby/raiders
```

```
openfmri/ds000105
```

```
2 14871.....:Fri 21 Oct 2016 09:57:54 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> datalad search Haxby | xargs datalad install
```

```
3 installed items are available at
```

```
<Dataset path=/home/yoh/datalad/labs/haxby>
```

```
<Dataset path=/home/yoh/datalad/labs/haxby/raiders>
```

```
<Dataset path=/home/yoh/datalad/openfmri/ds000105>
```

```
2 14872.....:Fri 21 Oct 2016 09:58:14 PM EDT:.
```

```
(git)hopa:~/datalad[master]
```

```
$> cd /home/yoh/datalad/labs/haxby/raiders
```

```
README.md          qa/                sub002/   sub007/   task_key.txt
```

```
TODO.md            scan_key.txt      sub003/   sub008/
```

```
aligned/          scripts/        sub004/   sub009/
```

```
dataset_description.json stimulus/      sub005/   sub010/
```

```
masks/           sub001/         sub006/   sub011/
```

```
2 14873.....:Fri 21 Oct 2016 09:58:30 PM EDT:.
```

```
hopa:~/datalad/labs/haxby/raiders
```

```
$> █
```

# DataLad demo1 - from search to get

```
File Edit View Search Terminal Help
2 14880.....:Fri 21 Oct 2016 10:00:20 PM EDT:.
hopa:~/datalad/labs/haxby/raiders
$> ls sub001/anatomy/
highres004.PAR@          highres008.PAR@          scout001.PAR@
highres004.REC@          highres008.REC@          scout001.REC@
highres004.nii.gz@      highres008.nii.gz@      scout005.PAR@
highres004_defaced.nii.gz@ highres008_defaced.nii.gz@ scout005.REC@
highres004_defacemask.nii.gz@ highres008_defacemask.nii.gz@
2 14880.....:Fri 21 Oct 2016 10:00:29 PM EDT:.
hopa:~/datalad/labs/haxby/raiders
$>
```

# DataLad demo1 - from search to get

```
File Edit View Search Terminal Help
2 14880.....:Fri 21 Oct 2016 10:00:20 PM EDT:.
hopa:~/datalad/labs/haxby/raiders
$> ls sub001/anatomy/
highres004.PAR@          highres008.PAR@          scout001.PAR@
highres004.REC@          highres008.REC@          scout001.REC@
highres004.nii.gz@      highres008.nii.gz@      scout005.PAR@
highres004_defaced.nii.gz@ highres008_defaced.nii.gz@ scout005.REC@
highres004_defacemask.nii.gz@ highres008_defacemask.nii.gz@
2 14880.....:Fri 21 Oct 2016 10:00:29 PM EDT:.
hopa:~/datalad/labs/haxby/raiders
$> datalad get -J4 sub*/anatomy/*nii.gz
2016-10-21 22:00:46,030 [INFO ] Getting 58 items of dataset <Dataset path=/home/yoh/datalad/labs/haxby/raiders> ...
Total (15 ok, 12 failed out of 58) 23%| | 57.0M/253M [00:17<01:04, 3.06MB/s]
sub005/anat .. aced.nii.gz: 98%| ██████████ | 7.33M/7.50M [00:08<00:00, 726KB/s]
sub005/anat .. aced.nii.gz: 71%| ██████████ | 5.08M/7.12M [00:06<00:03, 624KB/s]
sub006/anat .. aced.nii.gz: 75%| ██████████ | 4.24M/5.66M [00:04<00:01, 858KB/s]
sub007/anat .. aced.nii.gz: 21%| ██████████ | 1.49M/6.99M [00:00<00:00, 6.18MB/s]
```

# DataLad demo1 - from search to get

```
File Edit View Search Terminal Help
2 14881.....:Fri 21 Oct 2016 10:01:25 PM EDT:.
hopa:~/datalad/labs/haxby/raiders
$> ls sub001/anatomy/
highres004.PAR@          highres008.PAR@          scout001.PAR@
highres004.REC@          highres008.REC@          scout001.REC@
highres004.nii.gz@      highres008.nii.gz@      scout005.PAR@
highres004_defaced.nii.gz@  highres008_defaced.nii.gz@  scout005.REC@
highres004_defacemask.nii.gz@  highres008_defacemask.nii.gz@
2 14882.....:Fri 21 Oct 2016 10:01:44 PM EDT:.
hopa:~/datalad/labs/haxby/raiders
$>
```

## How: Foundation #1 – Git is

- a **version control system** initially developed to manage Linux project code
- **distributed** - content is available across all copies of the repository while allowing for aggregation of individual differences
- a backbone of **GitHub** and other *social coding* portals
- **very efficient** for managing textual information (code, text, configuration, *etc.*)
- **inefficient** for storing data

## How: Foundation #2 – Git-annex

- is **built on top of Git**
- provides **access to data content** from variety of sources: HTTP, FTP, Webdav, bittorent, RSYNC, Amazon S3, *etc.*
- allows for **custom extensions** to get access to offload data: Dropbox, Google drive, *etc.*
- features optional Dropbox-like **synchronization** facility via *git-annex assistant*

## How: Foundation #2 – Git-annex

- is **built on top of Git**
- provides **access to data content** from variety of sources: HTTP, FTP, Webdav, bittorent, RSYNC, Amazon S3, *etc.*
- allows for **custom extensions** to get access to offload data: Dropbox, Google drive, *etc.*
- features optional Dropbox-like **synchronization** facility via *git-annex assistant*

**Both Git and git-annex largely work on a single repository level**

## How: Foundation #2 – Git-annex


- is **built on top of Git**
- provides **access to data content** from variety of sources: HTTP, FTP, Webdav, bittorent, RSYNC, Amazon S3, *etc.*
- allows for **custom extensions** to get access to offload data: Dropbox, Google drive, *etc.*
- features optional Dropbox-like **synchronization** facility via *git-annex assistant*

**Both Git and git-annex largely work on a single repository level**  
**TBs of scientific data are out there in separate custom portals**

## How #1+2=#3: DataLad

- comes with **command line and Python** interfaces
- supports both **git and git/annex** repositories
- manages **multiple repositories** organized into “super-datasets” using standard git sub-modules mechanism
- is **scalable** since data stays with original data providers
- **unifies access** to data regardless of its origin (custom portals with authentication, S3, *etc.*) or serialization (*e.g.*, tarballs)
- aggregates datasets’ **meta-data** and allows for quick **search**
- can **publish** original or derived datasets publicly (a web server, WiP: github) or for internal use (*e.g.* via ssh), while possibly keeping data available from elsewhere
- can **export** datasets (tarballs, WiP: ISA-TAB)
- can **crawl** external online data sources, and update git/annex repositories upon changes

# OpenfMRI ds000001: [website](#)

 <https://openfmri.org/dataset/ds000001/>

**Revision: 2.0.0** Date Set: May 24, 2016, 7:26 p.m.

Notes:

- Converted to BIDS standard.

Data Associated with Revision:

- [Raw data on AWS](#)

**Revision: 1.1.0** Date Set: Feb. 18, 2016, 8:28 p.m.

Notes:

Updated orientation information in NIFTI headers for better left-right determination.

Data Associated with Revision:

- [Raw data checksums](#)
- [Raw data on AWS](#)

**Revision: 1.0.0** Date Set: July 10, 2012, 8:28 p.m.

Data Associated with Revision:

# OpenfMRI ds000001: crawled version (gitk)

The screenshot displays the gitk interface for the repository 'OpenfMRI ds000001'. The left pane shows a commit history graph with branches 'master' and 'remotes/origin/master'. The right pane lists commit messages and their timestamps. The bottom pane shows the details of the selected commit (SHA1 ID: 6a6549410895bce39a9fb56da36fd915faa49dd8).

**Commit History (Right Pane):**

Commit Message	Timestamp
Merge branch 'incoming-processed'	2016-06-08 18:01:53
Added files from extracted archives	2016-06-08 18:01:52
Updated git/annex from a remote location	2016-06-08 17:59:07
Merge branch 'incoming-processed'	2016-05-25 11:00:47
Added files from extracted archives	2016-05-25 11:00:46
Updated git/annex from a remote location	2016-05-25 10:58:15
Merge branch 'incoming-processed'	2016-05-24 16:03:33
Added files from extracted archives	2016-05-24 16:03:33
Updated git/annex from a remote location	2016-05-24 16:00:55
Merge branch 'incoming-processed'	2016-05-23 15:29:24
Added files from extracted archives	2016-05-23 15:29:23
Updated git/annex from a remote location	2016-05-23 15:27:13
Adjusted crawler configuration: crawl:pipeline section and _dataset	2016-05-23 14:53:27
Merge branch 'incoming-processed'	2016-03-31 00:28:17
Added files from extracted archives	2016-03-31 00:28:17
Updated git/annex from a remote location (Multi-version commit #2/2: 1.1.0. Remainir	2016-03-31 00:26:39
Merge branch 'incoming-processed'	2016-03-31 00:27:13
Added files from extracted archives	2016-03-31 00:27:13

**Selected Commit Details (Bottom Pane):**

SHA1 ID: 6a6549410895bce39a9fb56da36fd915faa49dd8

Find: commit containing: [ ] Exact [ ] All fields [ ]

Search: [ ]

◆ Diff ◆ Old version ◆ New version Lines of context: 3 Ignore space change Line dif

Follows: [ ]

Precedes: [2.0.0](#)

Added files from extracted archives

Files processed: 134  
renamed: 133  
+git: 5  
+annex: 128

◆ Patch ◆ Tree

Comments

CHANGES

- dataset\_description.json
- participants.tsv
- sub-01/anat/sub-01\_T1w.nii.gz
- sub-01/anat/sub-01\_inplaneT2.nii.gz
- sub-01/func/sub-01\_task-balloonanalogrisktask
- run-01\_bold.nii.gz

# OpenfMRI: crawled super-dataset

← → ↻ 🏠 datasets.datalad.org/?dir=openfMRI



To install this dataset in your current directory use

```
datalad install ///openfMRI/
```

To install with all subdatasets and all data

```
datalad install -r -g ///openfMRI/
```

For more information about DataLad and installation instructions visit [datalad.org](https://datalad.org)

[datasets.datalad.org](https://datasets.datalad.org/) / [openfMRI](https://openfMRI.org/) /

Search:

Name ▲	Last Modified ⚡	Size ⚡	Description
./	2016-10-11 00:27:05	717.8 kB/1.3 TB	OpenfMRI ( <a href="http://openfMRI.org/">http://openfMRI.org/</a> )
../	2016-09-22 15:31:00		
ds000001/ @2.0.1	2016-09-19 19:18:54	2.8 kB/2.4 GB	Balloon Analog Risk Task
ds000002/ @2.0.1	2016-10-07 22:43:10	2.4 kB/2.9 GB	Classification learning
ds000003/ @2.0.1	2016-10-07 22:43:13	2.1 kB/413.5 MB	Rhyme judgment
ds000005/ @2.0.0+3-2-gbed9245	2016-09-07 16:26:20	2.4 kB/1.9 GB	Mixed-gambles task
ds000006/ @2.0.0+3-2-g8b1d65a	2016-09-07 16:26:20	2.4 kB/4.8 GB	Living-nonliving decision with plain or mirror-reversed text

Our growing “distribution” :

- <http://datasets.datalad.org>

Covered :

- <http://openfmri.org> (S3)
- <http://crcns.org>
- <http://studyforrest.org> *etc.*

Coming :

- <http://humanconnectome.org> (S3, XNAT)
- <http://nitrc.org/ir> (INDI, FCP, *etc.*)

Straight from the oven : MRI DICOM → DataLad BIDS

<https://github.com/nipy/heudiconv/pull/32>

Integration : NeuroDebian

```
apt-get install openfmri-ds000113  
apt-get install openfmri
```



## Summary: DataLad ...

- helps to manage and share available and your own data via a simple (command line or Python) interface
- helps with
  - authentication
  - crawling of websites with data resources
  - getting data from archives
  - publishing your new or derived data
- uses pure git/git-annex repositories under – power users can stay in power, and everything is version controlled
- makes meta-data *useful* to normal humans
- is ready for you to start using it, documentation is growing:  
[www.datalad.org](http://www.datalad.org)

## Summary: DataLad ...

- helps to manage and share available and your own data via a simple (command line or Python) interface
- helps with
  - authentication
  - crawling of websites with data resources
  - getting data from archives
  - publishing your new or derived data
- uses pure git/git-annex repositories under – power users can stay in power, and everything is version controlled
- makes meta-data *useful* to normal humans
- is ready for you to start using it, documentation is growing:  
[www.datalad.org](http://www.datalad.org)

**Managing data can be similar to managing code and software**

**Brain Download:**

**iz compltes.**

# Thank you!

For more information visit

Website: [datalad.org](http://datalad.org)

Github: [github.com/datalad](https://github.com/datalad)

Twitter: [@datalad](https://twitter.com/datalad) (I am [@yarikoptic](https://twitter.com/yarikoptic), Michael is [@eknahm](https://twitter.com/eknahm))

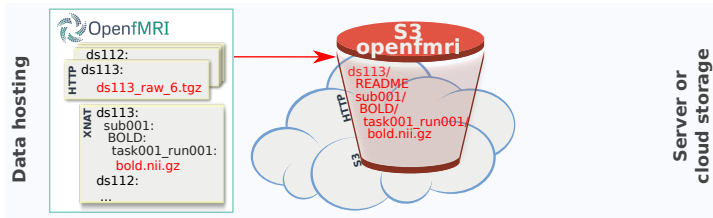
SfN 2016: Booth #4113

## References

Halchenko, Y. O. (2012). Incorrect probabilities in Harvard-Oxford-sub left hemisphere. [Retrieved 11-Mar-2013].

Rohlfing, T. (2013). Incorrect icbm-dti-81 atlas orientation and white matter labels. *Frontiers in Neuroscience*, 7(4).

# DataLad data distribution: Data life cycle

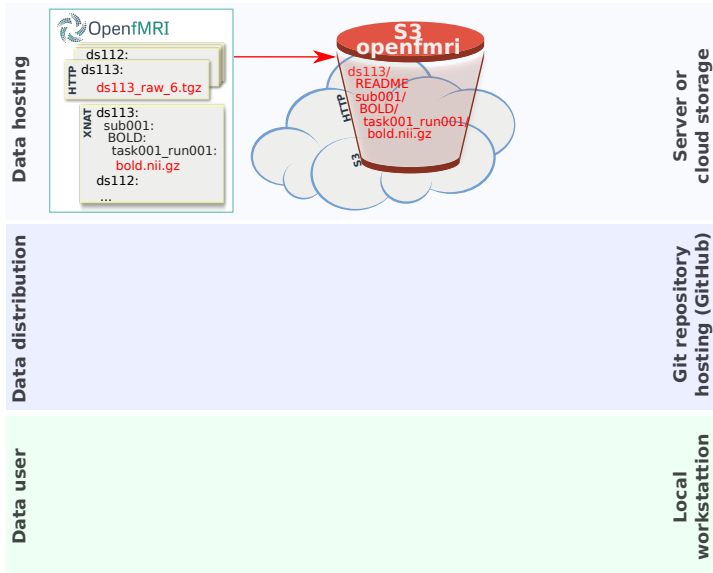


Data user

Local workstation

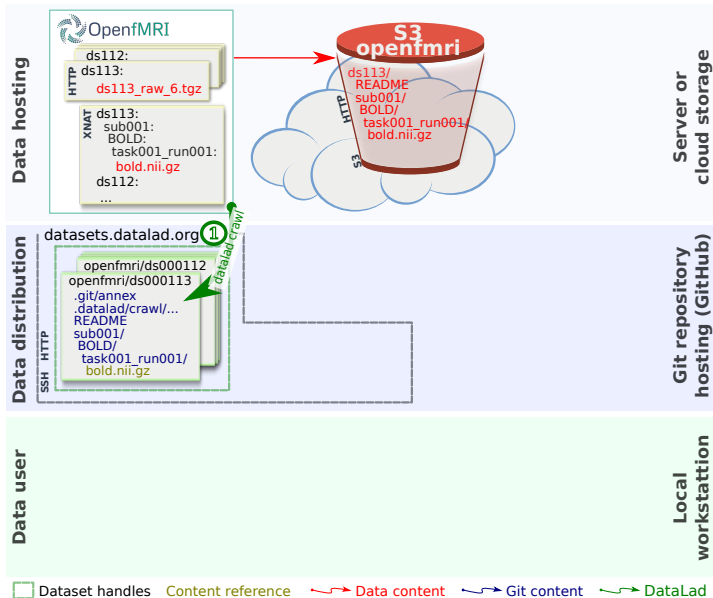
Content reference     Data content     Git content     DataLad

# DataLad data distribution: Data life cycle

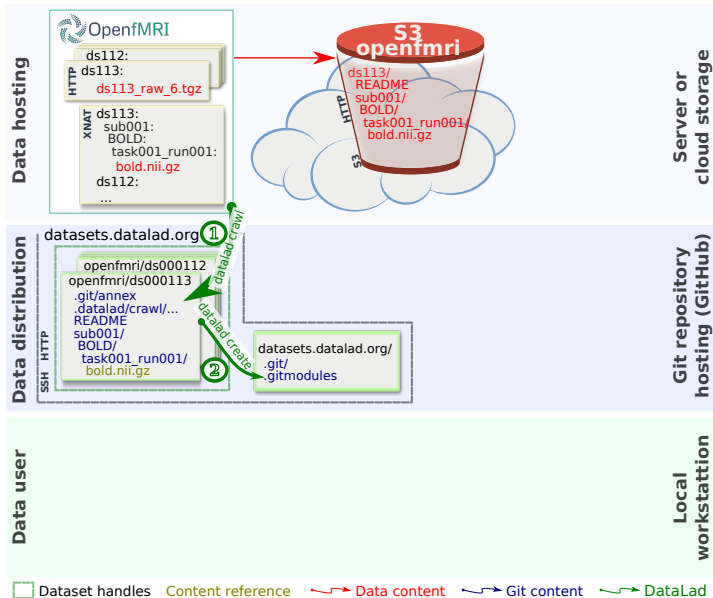


Content reference    Data content    Git content    DataLad

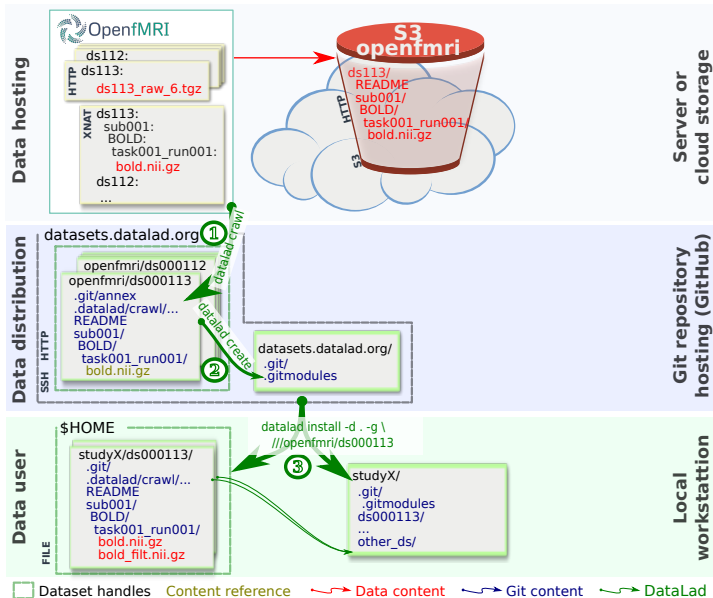
# DataLad data distribution: Data life cycle



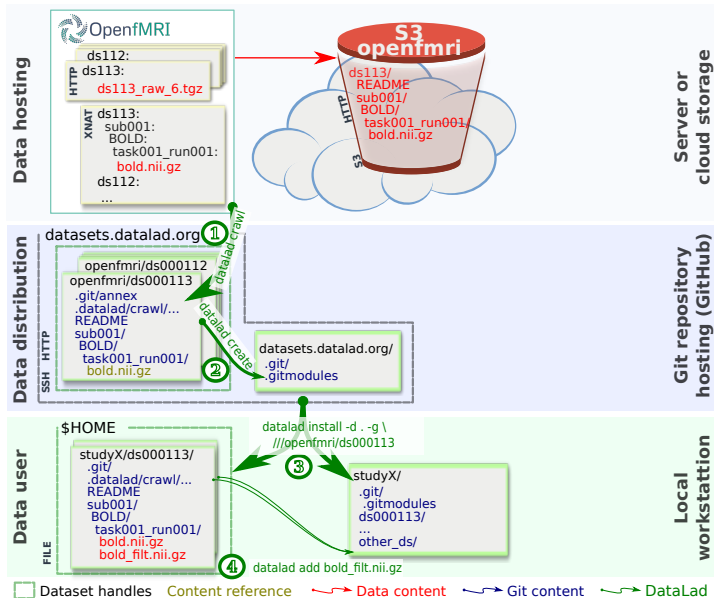
# DataLad data distribution: Data life cycle



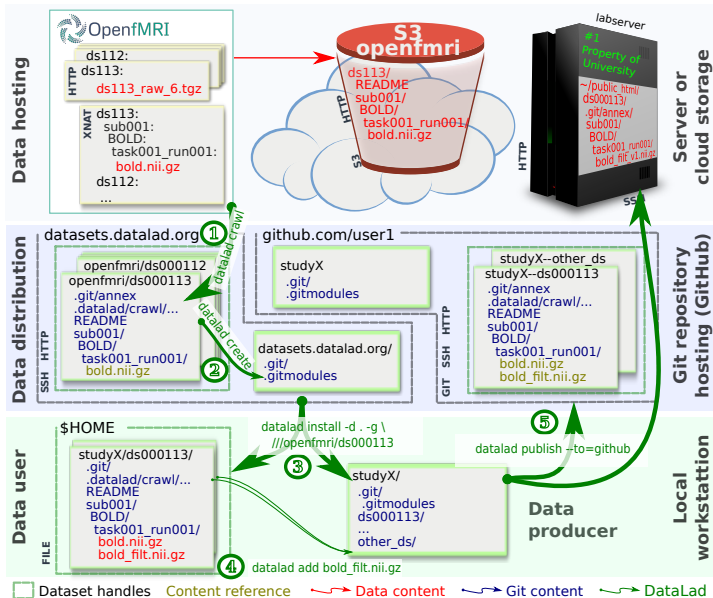
# DataLad data distribution: Data life cycle



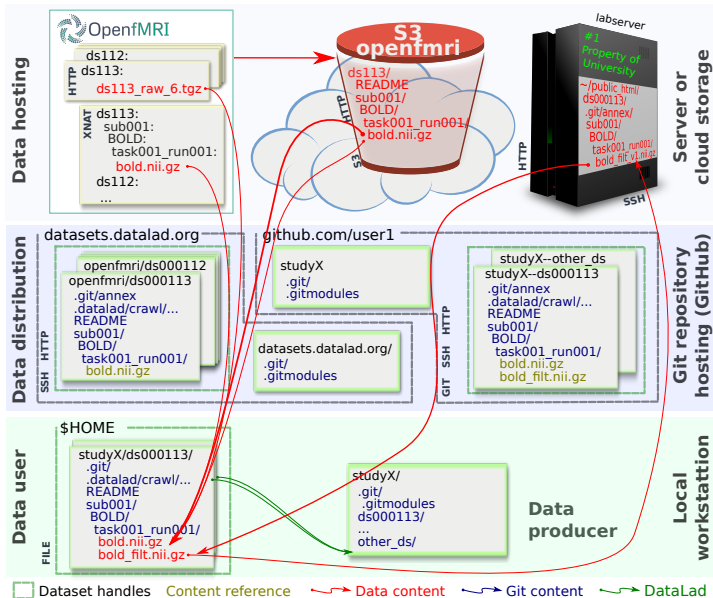
# DataLad data distribution: Data life cycle



# DataLad data distribution: Data life cycle




# DataLad data distribution: Data life cycle



# AutomagicIO: automatically fetch necessary files

Given Python code which accesses files within annex repository  
(example from PyMVPA):

 www.pymvpa.org/examples/hyperalignment.html

using a 12 dof linear transformation.

```
verbose(1, "Loading data...")
filepath = os.path.join(cfg.get('location', 'tutorial data'),
                        'hyperalignment_tutorial_data.hdf5.gz')
ds_all = h5load(filepath)
# zscore all datasets individually
_ = [zscore(ds) for ds in ds_all]
# inject the subject ID into all datasets
for i, sd in enumerate(ds_all):
    sd.sa['subject'] = np.repeat(i, len(sd))
# number of subjects
nsubjs = len(ds_all)
# number of categories
ncats = len(ds_all[0].UT)
# number of run
nruns = len(ds_all[0].UC)
verbose(2, "%d subjects" % len(ds_all))
verbose(2, "Per-subject dataset: %i samples with %i features" % ds_all[0].shape)
verbose(2, "Stimulus categories: %s" % ', '.join(ds_all[0].UT))
```

# AutomagicIO: automatically fetch necessary files

DataLad can automatically fetch necessary load whenever specific file is requested:

```
2 5329.....:Thu 23 Jun 2016 12:39:11 PM CEST:.  
(git)hopa:/tmp/PyMVPA[master]  
$> datalad install -s http://data.pympva.org/datasets/tutorial_data /tmp/tutorial_data  
2016-06-23 12:39:13,771 [INFO ] Installing /tmp/tutorial_data (install.py:353)  
1 installed item is available at  
<Dataset path=/tmp/tutorial_data>  
2 5329.....:Thu 23 Jun 2016 12:39:13 PM CEST:.  
(git)hopa:/tmp/PyMVPA[master]  
$> MVPA_LOCATION_TUTORIAL_DATA=/tmp/tutorial_data python -m datalad doc/examples/hyperalignment.  
py  
Loading data...  
2016-06-23 12:39:19,746 [INFO ] File /tmp/tutorial_data/hyperalignment_tutorial_data.hdf5.gz h  
as no content -- retrieving (auto.py:164)  
/tmp/tutorial_data/.git 100%[=====>] 15.04M --.-KB/s in 0.02s  
10 subjects  
Per-subject dataset: 56 samples with 3509 features  
Stimulus categories: Chair, DogFace, FemaleFace, House, MaleFace, MonkeyFace, Shoe  
Performing classification analyses...  
within-subject... done in 1.2 seconds  
between-subject (anatomically aligned)...done in 0.6 seconds  
between-subject (hyperaligned)...done in 3.3 seconds  
Average classification accuracies:  
within-subject: 0.57 +/-0.063  
between-subject (anatomically aligned): 0.42 +/-0.035  
between-subject (hyperaligned): 0.62 +/-0.050  
■
```

# DataLad's testing



Add more commits by pushing to the **nf-repo-slimming-down** branch on **yarikoptic/datalad**.



✓ **All is well** — 9 successful checks

[Hide all checks](#)

✓ **datalad-pr-virtualbox-dl-win7-64** — DEV build done.

[Details](#)

✓ **datalad-pr-docker-dl-nd80** — DEV build done.

[Details](#)

✓ **datalad-pr-docker-dl-nd14\_10** — DEV build done.

[Details](#)

✓ **datalad-pr-docker-dl-nd70** — DEV build done.

[Details](#)

✓ **datalad-pr-docker-dl-nd14\_04** — DEV build done.

[Details](#)

✓ **datalad-pr-docker-dl-nd90** — DEV build done.

[Details](#)

✓ **continuous-integration/travis-ci/pr** — The Travis CI build passed

[Details](#)

✓ **coverage/coveralls** — Coverage increased (+0.18%) to 83.88%


[Details](#)

✓ **datalad-pr-dl-osx-64** — DEV build done.

[Details](#)

**This pull request can be automatically merged.**

You can also merge branches on the [command line](#).

 [Merge pull request](#)