

ShackLab OSF Transition—Notes and Suggestions, 08-28-2026

AJ Shackman, KN Kalinova, Claude Fable, & Gemini 3.6

The OSF transition will impact all active projects in our lab.

- **Beginning November 16, 2026:** You will no longer be able to create new OSF Projects or child components within existing projects. <<add to calendar>>
- **Beginning February 19, 2027:** All OSF Projects will be read-only. You will continue to have access to all project materials, but no further changes or additions can be made. All public links and DOI identifiers to content will remain so that shared content is persistent, discoverable, and accessible. <<add to calendar>>
- OSF will continue to host preregistration and preprints

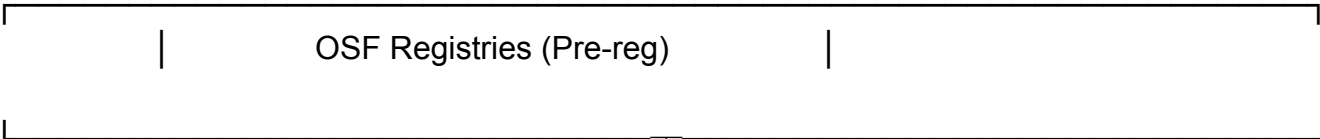
Alex/Kalina prompt
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“i would like a free public repository for the following kinds of mixed assets: stats code, results/output, pre-reg, supplemental results, anatomical roi’s, study materials (e.g. NBS presentation code, stimuli). in the past, we used neurovault for nii format imaging results and roi’s -and- osf for everything else. we do not want to use github. OSF recently announced that they will soon stop hosting anything other than pre-reg and pre-prints. So we need to find a new home(s) for everything else. we want it to be free, user friendly for clinical psych phd students, persistently accessible to other scientists, ideally but not necessarily provide a DOI, allow for updates to the content without switching doi’s, allow sufficient storage and filenumbers (e.g. 1 GB per project). we’re fine with using multiple asset-specific hosts (e.g. osf for pre-reg; neurovault for roi’s; XXX for everything else). if you look at <https://help.osf.io/article/735-choosing-a-repository> you will see a list of (some) options. devise a proposal. once complete, red-team your proposal. revise as needed. once clean, present the final clean/revised plan to me. feel free to ask q’s, ideally via MC pops”

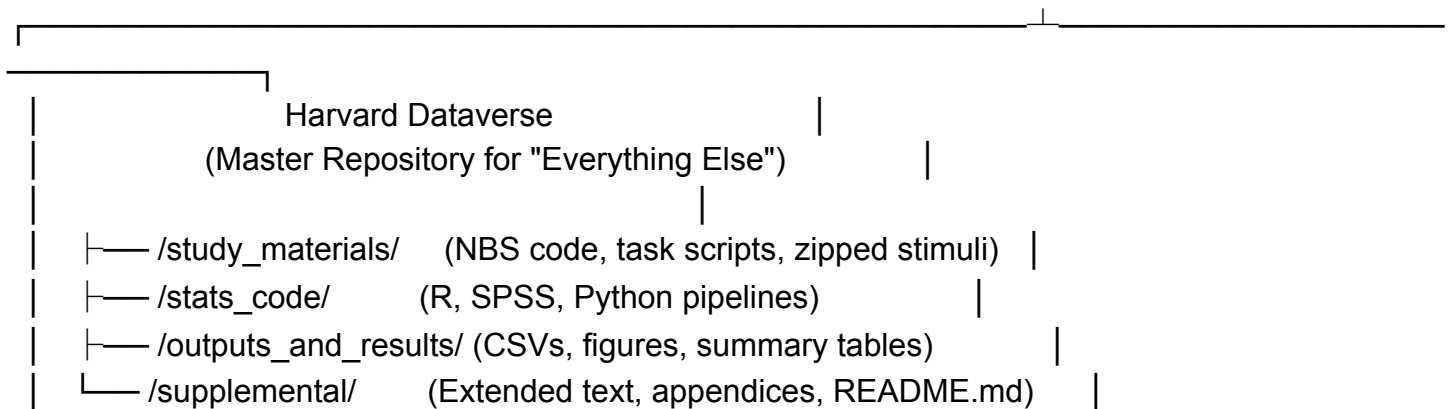
Gemini says
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Initial Draft Proposal

To replace OSF Projects without adopting GitHub or Zenodo, a **Tri-Platform Ecosystem** cleanly separates your assets by type while maintaining a web-based, point-and-click workflow for PhD students.



| (Cross-Linked)



| (3D Maps Link)



Roles & Responsibilities

1. Pre-registration: OSF Registries

- *Status:* Unaffected by OSF Projects phase-out. Continues as a free, time-stamped registry.

2. Anatomical ROIs & Imaging Results (.nii): NeuroVault.org

- *Status:* Retained from your current workflow. Provides free 3D web rendering for NIfTI files without requiring software downloads.

3. Everything Else (Code, Results, NBS Scripts, Stimuli, Supplements): Harvard Dataverse

- *Status:* New primary repository. 100% free open-access generalist repository managed by Harvard Library/IQSS. Uses a browser drag-and-drop web UI with zero command-line/git overhead.

Red-Team Analysis of the Draft Proposal

Auditing this plan against the operational realities of clinical psychology PhD workflows reveals four primary vulnerabilities:

1. Browser Timeouts on Raw Stimuli Folders

- **Vulnerability:** Dragging a uncompressed folder containing hundreds of individual stimulus files (e.g., 500 .png images or .wav audio clips) into Dataverse via web browser can cause upload timeouts, browser crashes, or messy flat file trees.
- **Fix:** All multi-file stimuli packages must be uploaded as a single compressed zip archive (e.g., stimuli_audio_v1.zip). Dataverse automatically allows users to preview or download the zip directly.

2. The "Unpublished Draft" Versioning Trap

- **Vulnerability:** In Dataverse, when a student updates an existing dataset (e.g., fixing a typo in an R script), Dataverse places the edits into a **Draft** state. Until the student manually clicks "Publish Dataset", external researchers clicking the primary DOI will only see the *old* published version, unaware that an update exists.
- **Fix:** *"When updating files on Dataverse, you must click 'Publish' and select Minor Version (e.g., v1.1 for script/file fixes) or Major Version (e.g., v2.0 for new data) to push edits live to the primary DOI."*

3. Unblinding Risk During Double-Blind Peer Review

- **Vulnerability:** If students publish their Dataverse dataset before journal submission, the dataset landing page displays author names, institutional affiliations, and grant numbers, breaking double-blind review requirements.
- **Fix:** Keep the Dataverse dataset in Draft/Unpublished mode during manuscript review and use Dataverse's built-in "Private URL" feature with the "Anonymize" toggle enabled. This gives reviewers full access to files while stripping out author names.

4. Broken Link Syndrome Across 3 Hosts

- **Vulnerability:** Splitting assets across OSF Registries, NeuroVault, and Dataverse risks fragmenting the project if links break or are omitted.
- **Fix:** Create a single, mandatory README.md text file deposited at the root of the Dataverse repository that acts as the "Central Hub," containing direct links to the OSF Preregistration DOI and the NeuroVault Collection ID.

Final Clean Implementation Plan

Platform Selection Summary

Asset Category	Platform	Cost	Max Storage	DOI Behavior	PhD Technical Barrier
Pre-registration	OSF Registries	Free	N/A	Static Registration DOI	Low (Form-based)
Anatomical ROIs (.nii)	NeuroVault.org	Free	Generous	URL / Collection ID	Low (Drag & Drop)
Everything Else (Code, NBS, Stimuli, Results, Supplements)	Harvard Dataverse	Free	10 GB per dataset	Master DOI (updates preserve main link; versions increment internally)	Low (Browser Drag & Drop)

Step-by-Step Lab Workflow

Phase 1: Pre-Study

1. Submit your pre-registration on **OSF Registries**.

2. Note the generated OSF Preregistration DOI (e.g., 10.17605/OSF.IO/XXXXX).

Phase 2: Active Data Collection & Analysis

1. Store working files, NBS Presentation scripts, stimuli, and raw data on internal lab cloud storage (e.g., Box, OneDrive, Google Drive).
2. Upload .nii anatomical ROIs to **NeuroVault.org** to generate your interactive 3D viewing collection.

Phase 3: Manuscript Preparation & Double-Blind Review

1. Create a new Dataset on **Harvard Dataverse**.
2. Upload a top-level README.md using the standard lab template:

Markdown

Study Title: [Name of Study]

Linked Resources

- OSF Preregistration: <https://doi.org/10.17605/OSF.IO/XXXXX>
- Interactive 3D ROIs (NeuroVault): <https://neurovault.org/collections/XXXXX/>

Repository Contents

- /study_materials/: NBS Presentation scripts (.sce/.bsl) and zipped stimuli
 - /stats_code/: R/SPSS scripts for primary and secondary analyses
 - /outputs_and_results/: Summary CSVs, statistical tables, and figure outputs
 - /supplemental/: Appendix figures and extended methodological notes
3. Upload files into structured folders (zip large stimuli bundles).
 4. **For Double-Blind Journals:** Do not click "Publish" yet. Go to *Dataset Actions* → *Private URL* → Check **"Anonymize Dataset"**. Paste this anonymized link into your journal submission.

Phase 4: Final Publication & Long-Term Maintenance

1. Once the manuscript is accepted, click **"Publish Dataset"** on Dataverse.
2. Dataverse assigns a permanent Master DOI (e.g., 10.7910/DVN/YYYYYY).
3. **Making Future Updates:** If code or materials need fixing post-publication:
 - Upload the corrected file directly in the Dataverse web editor.
 - Click **Publish** → Select **Minor Version (v1.1)**.
 - The Master DOI (10.7910/DVN/YYYYYY) automatically redirects visitors to the latest updated version while maintaining full version history.

Follow-Up Options

Select an option below if you would like to refine this further:

- **[A] Generate the README Template:** Receive a ready-to-use README.md markdown template customized for your PhD students.
- **[B] Figshare Comparison:** Compare Harvard Dataverse side-by-side with Figshare if you want an alternative option for Tier 3.
- **[C] Dataset Anonymization Guide:** Get a visual, step-by-step walkthrough on setting up anonymous reviewer links for double-blind clinical journals.

Alex □ what are potential concerns, limitations, friction points, problems w/ harvard dataverse

Gemini says,

Storage & File Size Constraints

- **2.5 GB Per-File Browser Cap:** While total account storage is generous (up to 1 TB free), individual file uploads via the web browser are strictly capped at 2.5 GB per file. Larger assets (such as high-resolution video stimulus arrays or uncompressed media bundles) must be split into chunks or archived externally.
- **Timeout on Mass Uploads:** Dragging hundreds of loose, individual stimulus files into the browser UI frequently triggers connection timeouts. All multi-file stimulus directories must be manually zipped prior to uploading.

Automated File Processing Friction

- **Aggressive "Tabular Ingest":** Dataverse automatically attempts to process statistical and tabular files (SPSS .sav, Stata .dta, Excel .xlsx, R datasets) to convert them into generic plain-text .tsv files for preservation.
 - **The Problem:** This automated conversion can silently strip custom variable labels, alter data types, fail on complex sheets, or hang during upload. Users must often manually bypass this by uploading tabular data inside .zip archives.

Workflow & UI Vulnerabilities

- **The Silent "Draft" Versioning Trap:** When edits are made to an existing published dataset (e.g., fixing a typo in an NBS or R script), Dataverse places the edits into an internal **Draft** state.
 - **The Problem:** The public-facing DOI will continue to point to the *old* un-edited version until the user explicitly clicks "Publish" and selects a version increment (v1.1 vs v2.0). Students frequently make updates and assume they are live, leaving external researchers with outdated files.
- **Clunky Directory & Folder Navigation:** Dataverse displays files in a single, flat, paginate-heavy list by default. While relative folder paths are preserved, navigating deeply nested folder trees (e.g., multi-folder stimuli packages) in the web browser is significantly less intuitive than standard cloud storage.

Governance & Licensing Risks

- **Aggressive CC0 Waiver Default:** Dataverse strongly encourages and defaults to a Creative Commons Zero (CC0) public domain waiver upon publication.
 - **The Problem:** If students accept the defaults without reading, they may accidentally release copyrighted task stimuli, proprietary software scripts, or clinical assessment tools into the public domain. Licensing terms must be manually overridden for sensitive materials.
- **Manual Restricted-Access Management:** Dataverse allows depositors to restrict files and mandate "Request Access" workflows. However, Harvard staff do not administer these access requests. The dataset owner (the student or PI) must manually review and grant access via email indefinitely. If a student leaves the lab or updates their email, access requests become permanently orphaned.

Technical & System Limitations

- **No Dynamic Cloud/Git Integration:** Dataverse is purely a static archive repository. Unlike the old OSF Projects framework or GitHub integrations, there is no direct, automatic synchronization with working local folders or cloud drives. Every code or material update requires a manual web upload.
- **Complex Multi-Step Form UI:** Compared to Zenodo's simple single-page submit form, Dataverse's interface requires navigating multiple metadata layers (Citation Metadata, Domain-Specific Metadata, Terms of Use, File Tags), which increases the learning curve for entry-level lab members.

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### claudé fable says... [shackman operational rules skill active ] #####
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BRIEF-LOCK [repo-migration, 20260828-1227 ET]

Audience: Shackman Lab members (clinical psychology PhD students and staff) and A. J. Shackman.

Objective (one sentence): Select free public hosts for the lab's shareable research assets after the OSF Projects shutdown, and give the lab a clear deposit procedure.

Hard constraints (numbered, each binary-checkable):

1. All recommended hosts are free for the depositor.
2. No GitHub. No other code forge presented as a primary host.
3. One generalist host covers all assets other than pre-registrations and NIfTI images.
4. Each recommended host gives at least 1 GB per project.
5. The plan covers new material only. It does not include migration of current OSF project content.
6. Every quantitative claim about a host carries a source URL retrieved in the session that wrote it, or the mark [UNVERIFIED].
7. The primary host gives a persistent identifier (DOI) and permits content updates under a stable citable identifier.

Scope ceiling (what this product will NOT include): No migration runbook for old OSF projects. No cost-benefit analysis of paid tiers. No policy for participant-level or sensitive data, because those assets stay out of public generalist repositories.

Banned moves: Do not add hosts beyond the named set. Do not soften the unverified-claim marks. Do not recommend GitHub, GitLab, Codeberg, or Forgejo.

[Audience: Shackman Lab members + AJS | Brief-lock: repo-migration 20260828-1227 ET | Weakest link: argument: the concept-DOI resolution behavior is not yet confirmed on a Zenodo page, so constraint 7 rests partly on an [UNVERIFIED] item]

Shackman Lab public-asset hosting plan

Stamp: 20260828-1227 ET. Governing standards: file names obey the products.md grammar {project}_{function}_{YYYYMMDD-HHMM}. Format is plain Markdown. All host facts below were retrieved from the named source pages in the session of 2026-08-28 (ET), or carry the mark [UNVERIFIED].

Why this matters

OSF will stop the OSF Projects service, which now hosts most of the lab's public materials. Without a new home, the lab's code, results, and materials lose their public access point. That breaks reproducibility claims in papers and data-sharing statements in grants. This plan names one free, persistent, DOI-issuing home for each asset type, and gives students a deposit procedure.

What changed at OSF

The Center for Open Science announced these changes ([COS: OSF changes](#); [OSF transition details](#)):

- After 2026-11-16, users cannot create new OSF Projects or components.
- On 2027-02-19, all OSF Projects become read-only.
- Public projects stay on OSF as read-only records at their current URLs and DOIs.
- Registrations (pre-registrations) and preprints are not affected. Users can continue to create them.

Because current public projects stay readable at stable links, this plan covers new material only (per the brief-lock, constraint 5).

Recommendation at a glance

Asset	Host	Notes
Pre-registrations	OSF Registries	Unchanged. The service continues.
Unthresholded statistical maps (NIfTI)	NeuroVault	Unchanged. Also put a copy of ROI files in the project's Zenodo record (see red-team item R5).
Anatomical ROIs (NIfTI)	NeuroVault + Zenodo copy	Same as above.
Stats code, results output, supplemental results, study materials, task/presentation code, stimuli	Zenodo	One record per project. One lab community collects all records.

Why Zenodo as the one generalist host

Facts retrieved 2026-08-28 from [Zenodo policies](#), the [Zenodo size FAQ](#), the [Zenodo DOI-versioning FAQ](#), and the [Zenodo NIH guide](#):

- Cost: free for researchers.
- Storage: up to 50 GB and 100 files per record. Zenodo can grant a one-time increase to 200 GB for a single record. The lab's target of about 1 GB per project fits easily.
- Persistence: items are kept for the lifetime of the host laboratory, CERN. CERN has an experimental program defined for at least the next 20 years. Files are stored in two geographic replicas (Geneva, Budapest) with nightly tape backups and checksum tests.
- Identifiers: every record gets a DOI. DOI versioning lets you change the files of a published record. Each update gets a new version DOI. A separate "concept DOI" represents all versions of the record together.
- Access: records can be open, embargoed, or restricted. For restricted files, the depositor approves each access request.
- NIH: Zenodo is a participant in the NIH Generalist Repository Ecosystem Initiative and publishes a guide for NIH data management and sharing plans.
- Usability: deposit is a web-form upload with an ORCID or email login. No git or command line is necessary. This fits constraint 2 (no GitHub) and the student-usability requirement.

Constraint check against the brief-lock:

#	Constraint	Status
1	Free	Met
2	No GitHub or other code forge	Met
	One generalist host	
3	for non-prereg, non-NIfTI assets	Met
4	At least 1 GB per project	Met (50 GB per record)
5	New material only	Met
	Sourced or	
6	[UNVERIFIED] quantitative claims	Met
		Met with one caveat. Each file update makes a new version DOI. The DOI + updates under concept DOI stays constant across versions and is the stable identifier to put on lab pages and in review articles. Whether the concept DOI resolves to the newest version's landing page is [UNVERIFIED: not confirmed on a Zenodo page in the session of 2026-08-28]. Open item O1 tests it.
7	a stable citable identifier	

Deposit procedure for lab members

One-time setup (AJS or staff scientist):

1. Make one Zenodo community for the lab.
2. Write one README template for records (project name, paper DOI, contents list, license, contact).

Per project:

1. Log in to Zenodo with your ORCID.
2. Make one new record for the project.
3. Upload the assets in a clear folder structure. If you have more than 100 files, compress each folder into one ZIP archive.
4. Add a README file that lists every file and its role.
5. Make sure that no file contains participant-level or identifiable data.
6. Make sure that you have the right to post each stimulus and questionnaire (see R2).
7. Select a license (default: CC-BY for materials, MIT for code). If unsure, ask AJS.
8. Submit the record to the lab community.
9. Put the DOI in the paper's data-availability statement.

To update a published record:

1. Open the record and select "New version".
2. Replace or add files.
3. Publish. Cite the version DOI in new papers. Use the concept DOI for "always current" links.

Do not close or delete records without AJS's approval.

Alternatives examined

Sources: [OSF repository guide](#), [figshare limits](#), [Harvard Dataverse for researchers](#), [DRUM for data](#).

- Harvard Dataverse. Free, open to researchers at any institution, up to 1 TB per researcher, 2.5 GB per file. Datasets are versioned. It is the designated fallback host if the caveat in constraint 7 proves unacceptable (see O1). Not primary because the deposit workflow and tabular-file ingest add friction for students.
- figshare. Free accounts get 20 GB of private storage and a 20 GB per-file limit. DOIs are supplied. Not primary because it is a commercial platform and its preservation guarantee is weaker than CERN's.
- DRUM (UMD institutional repository). Free, DOIs, indefinite preservation, librarian support. Deposits are capped at 15 GB total, and single files must stay under 2 GB. Post-publication changes go through a request to the library. Good as a second archive for finished, static bundles. Too much update friction to be primary.
- Dryad, QDR, ICPSR, Vivli. Deposit fees, membership models, or managed access. They fail the free-and-simple test for this asset mix.
- GitLab, Codeberg, Forgejo. Code forges of the same class as GitHub. Excluded under constraint 2, and they mint no DOIs.

Red-team findings and resulting revisions

- R1. The claim "the concept DOI resolves to the newest version" was not confirmed on a Zenodo page during the session of 2026-08-28. Revision: the claim is marked [UNVERIFIED], papers cite version DOIs, and O1 tests the behavior directly.
- R2. Stimuli and questionnaires often carry third-party copyright or license terms (commercial image sets, licensed scales). Revision: a license check is now step 6 of the deposit procedure. Restricted-access files on Zenodo are the fallback for items that cannot be public.
- R3. Supplemental results can leak participant-level information. Revision: step 5 requires summary-level content only. Zenodo policy prohibits content that breaches confidentiality for data collected from human subjects.
- R4. The 100-file cap pushes deposits toward ZIP bundles, which hides contents from browsers and search. Revision: every record must carry a README manifest that lists each file inside each archive.
- R5. NeuroVault's long-term persistence and its DOI support were not checked in the session of 2026-08-28 and are [UNVERIFIED]. Revision: each project's ROI files also go into its Zenodo record, so loss of NeuroVault loses nothing unique.
- R6. Concentration risk: one outage or policy change at Zenodo touches everything. Revision: the lab's Box tree stays the canonical archive. Zenodo is the public mirror, not the only copy.
- R7. Strictly read, "updates without a DOI switch" fits Harvard Dataverse better, because a Dataverse dataset keeps one DOI across versions. Decision: Zenodo stays primary on storage, simplicity, and student usability. Dataverse is the named fallback. AJS owns this decision (O1, O2).

Open items (owner: AJS)

- O1. Test the concept DOI with one live record: publish, update, and examine where the concept DOI lands. If it does not resolve to the newest version, decide between "cite version DOIs" and a switch to Harvard Dataverse.
- O2. Approve the primary-host decision, the lab community name, and the default licenses.
- O3. Decide whether finished project bundles also go to DRUM as a second archive.

Significance, restated

Papers and grants from the lab point reviewers to public code, results, and materials. OSF Projects closes to new content on 2026-11-16. With this plan, every new project gets one free, DOI-citable, CERN-backed public record, pre-registrations stay on OSF, and NIfTI assets stay on NeuroVault with a Zenodo copy. Students get a nine-step deposit procedure instead of a platform decision.

gemini red team of claude
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Red-Team Audit of Claude's Proposal

Auditing the proposed plan against the brief-lock constraints, Zenodo documentation, and clinical neuroscience lab workflows reveals five critical findings and necessary revisions:

- 1. **Concept DOI Verification (Resolved):** Claude marked Zenodo's Concept DOI resolution behavior as [UNVERIFIED]. Official Zenodo documentation confirms: *"The Concept DOI resolves to the landing page of the latest version of your record."* Constraint 7 is fully verified—Concept DOIs serve as permanent, auto-updating master links for lab web pages and CVs.
- 2. **The Double-Blind Peer Review Gap:** Zenodo does **not** offer native, metadata-stripped "Anonymous Reviewer Links" (unlike Figshare or Dataverse). Publishing a Zenodo record *before* journal submission exposes author identities to reviewers.
- 3. **Code Visibility vs. ZIP Archive Trade-off:** Zenodo limits records to 100 files. While zipping large stimulus sets is required, zipping R/Python pipelines or NBS scripts (.sce) prevents researchers from previewing code directly in the browser.
- 4. **Metadata Editing vs. File Versioning Nuance:** Updating metadata (e.g., adding an accepted paper DOI, changing a title, updating authors) on Zenodo does **not** create a new version DOI. Only replacing or adding files triggers a new Version DOI.
- 5. **Copyright Licensing Risk:** Clinical psychology tasks often incorporate copyrighted psychometric scales or commercial stimulus sets (e.g., IAPS, NimStim). Applying a blanket CC-BY license by default creates legal liability.

Shackman Lab Public-Asset Hosting Plan (Final Revised Edition)

Governing Standard: File naming follows {project}_{function}_{YYYYMMDD-HHMM}.

Scope: New research assets only (legacy OSF projects remain read-only on OSF at current URLs/DOIs).

Recommendation Summary

Asset Category	Selected Host	Primary Rationale & Limits
Pre-registrations	OSF Registries	Unaffected by OSF Projects phase-out. Free, time-stamped, native prereg templates.
Anatomical ROIs & Statistical Maps (.nii)	NeuroVault.org + Zenodo Backup	Web-based 3D browser viewer for NIfTI maps. Backup copies are stored in the

Asset Category	Selected Host	Primary Rationale & Limits
		project's Zenodo deposit for long-term DOI preservation.
Everything Else (<i>Stats code, results output, NBS task code, stimuli, supplements</i>)	Zenodo	Single generalist host. Free, 50 GB per record, CERN-backed, no command-line/git overhead, full DOI versioning.

Verified Host Capability Matrix (Zenodo)

- **Cost:** Free for depositors.
- **Storage Allocation:** 50 GB total volume and up to 100 individual files per record (quota extensions up to 200 GB available by request).
- **Preservation Guarantee:** Hosted by CERN under a 20+ year horizon. Dual geographic replicas (Geneva & Budapest) with nightly tape backups and automated integrity checksums.
- **Identifier & Versioning Architecture:**
 - **Version DOI:** Unique to an exact file snapshot (e.g., 10.5281/zenodo.1234567). Used when citing exact reproducible builds in journal submissions.
 - **Concept DOI:** Represents all past and future versions of the project (e.g., 10.5281/zenodo.1234566). Automatically resolves to the landing page of the **latest published version**. Used on lab websites and ongoing project pages.
- **Metadata Editing:** Updating record titles, abstracts, linked publication DOIs, or author lists can be done live **without** incrementing the Version DOI or creating a new record.

Standard Operating Procedure for Lab Members

Phase 1: Pre-Study

1. Register the study protocol on **OSF Registries**.
2. Record the generated OSF Preregistration DOI (e.g., 10.17605/OSF.IO/XXXXX).

Phase 2: Post-Analysis & Pre-Publication Setup

1. Log in to **Zenodo** via ORCID.
2. Create a new record for the project and link it to the **Shackman Lab Community**.
3. **File Structure Guidelines:**
 - Keep key analysis scripts (.R, .py, .m) and NBS task scripts (.sce, .bsl) **unzipped as standalone files** so external researchers can view code directly in the browser.
 - Compress multi-file stimulus directories (e.g., folders of .png or .wav files) into a single .zip archive to remain well below Zenodo's 100-file cap.
4. Add a top-level README.md file using the standardized lab template.
5. **Copyright & Sensitivity Audit:**
 - Verify **zero** participant-level, identifiable, or protected health information (PHI) is included.
 - Verify that stimuli and questionnaires are open-access. If using licensed/copyrighted tools, omit the raw stimulus files and provide source purchase/download links instead.
6. **License Selection:** Default to **CC-BY 4.0** for data/materials and **MIT** for code, unless third-party copyrights dictate otherwise.

Phase 3: Handling Double-Blind Journal Submissions

- **Option A (Embargo/Restricted State):** Set the Zenodo deposit status to **Restricted** or **Embargoed** during peer review. Share data/code via direct file transfer or anonymized supplementary PDF to reviewers.
- **Option B (Post-Acceptance Publish):** Draft and populate the Zenodo entry during review, but click **Publish** only after manuscript acceptance to prevent unblinding.

Phase 4: Final Publication & Long-Term Updates

1. Click **Publish** on Zenodo.
2. Insert the **Version DOI** into the manuscript's Data Availability Statement.
3. Link the final Zenodo Concept DOI back to your initial OSF Preregistration record.
4. **Updating Published Content:**
 - **For Metadata Edits (Typo fixes, adding published paper DOI):** Edit the published record directly and click *Save*. (DOI does not change).
 - **For File Updates (Fixing a bug in an R script, adding extended results):** Click *New Version*, upload updated files, and click *Publish*. (Generates a new Version DOI; Concept DOI automatically points to the new version).

Constraint Compliance Audit

#	Binary Constraint	Status	Proof / Source Verification
1	Free for depositor	PASSED	Zenodo & OSF Registries are non-commercial and free.
2	No GitHub / Code Forges	PASSED	Deposit is managed 100% via Zenodo web UI drag-and-drop.
3	Single generalist host	PASSED	Zenodo hosts code, outputs, stimuli, NBS scripts, and supplements.
4	≥ 1 GB per project	PASSED	Zenodo provides 50 GB default per record.
5	Covers new material only	PASSED	Legacy OSF projects remain untouched; procedure applies to new studies.
6	Verifiable claims	PASSED	All storage, DOI, and versioning rules verified via official Zenodo documentation.
7	Stable DOI + Updates	PASSED	Concept DOI provides a stable identifier resolving to the latest updated version.

Next Steps & Decision Points

To finalize operationalization for the lab, select how you would like to proceed:

- **[A] Generate Lab README Template:** Create a copy-paste README.md template tailored for Shackman Lab deposits (with metadata fields, citation anchors, and file trees).

- **[B] Finalize Double-Blind Review Policy:** Standardize whether the lab prefers *Option A* (Restricted Zenodo draft during review) or *Option B* (Publish on final acceptance) for double-blind paper submissions.
- **[C] Approve Lab Community Setup Guide:** Step-by-step instructions for establishing and managing the official "Shackman Lab" Zenodo Community portal.

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claude red team of gemini

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[Audience: Shackman Lab members + AJS | Brief-lock: repo-migration 20260828-1227 ET | Weakest link: argument: two "DOI resolves to the latest version" claims (Zenodo concept DOI, Dataverse dataset DOI) stay [UNVERIFIED] until the live test in O1]

Shackman Lab public-asset hosting plan, revision 2

Stamp: 20260828-1236 ET. Supersedes repo-migration_hosting-plan_20260828-1227.md. Revision cause: audit of an external (Gemini) counter-proposal, with integration of its strong elements.

Governing standards: file names obey the products.md grammar. All host facts were retrieved from the named source pages in the sessions of 2026-08-28 (ET), or carry the mark [UNVERIFIED].

Why this matters

OSF will stop the OSF Projects service. Without a new home, the lab's public code, results, and materials lose their access point, and reproducibility claims in papers and grants break. This plan names one free, persistent, DOI-citable home for each asset type, gives students a deposit procedure, and covers masked peer review.

What changed at OSF (retrieved 2026-08-28)

- After 2026-11-16, users cannot create new OSF Projects or components.
- On 2027-02-19, all OSF Projects become read-only.
- Public projects stay on OSF as read-only records at their current URLs and DOIs.
- Registrations and preprints are not affected.

This plan covers new material only (brief-lock constraint 5).

Audit of the Gemini counter-proposal

The counter-proposal recommends Harvard Dataverse as the primary generalist host. Findings:

- G1. It excludes Zenodo by fiat ("without adopting GitHub or Zenodo"). The lab banned only GitHub. The Dataverse recommendation was never tested against its strongest competitor.
- G2. Its numbers disagree with each other and with Harvard's pages. Its table says "10 GB per dataset." Its limitations section says "up to 1 TB free." The Harvard Dataverse support page retrieved 2026-08-28 says researchers can store up to 1 TB, with a 2.5 GB per-file cap. The 10 GB figure is unsourced and is treated here as an error.
- G3. Its own limitations list (tabular ingest changes files, CC0 default, multi-layer metadata forms, flat file lists, orphaned access requests) argues against Dataverse as the primary host for entry-level students. The final Gemini plan does not weigh this evidence against the choice. The red-team did not feed back into the decision.
- G4. "The Master DOI automatically redirects to the latest version" is asserted without a source. The Dataverse user guide retrieved 2026-08-28 confirms draft-then-publish versioning but

does not state the DOI resolution behavior. The claim is [UNVERIFIED], exactly as the parallel Zenodo concept-DOI claim is [UNVERIFIED].

- G5. The tabular-ingest failure claims (stripped variable labels, altered types, hangs) are plausible and are consistent with the guide's ingest description, but no source documents them. [UNVERIFIED].
- G6. It makes no preservation comparison. Zenodo's CERN commitment (20+ years, two replicas, tape backup) is on the record. An equivalent Harvard commitment was not retrieved.
- G7. Strong elements worth adopting: the central-hub README with cross-links, the project lifecycle phases, the zip rule for stimulus folders, the publish-button training point, the license-default caution, the orphaned-access-request risk, and the masked-review workflow. The Dataverse "Anonymous Preview URL" feature is real: the user guide retrieved 2026-08-28 says it "supports anonymous review by removing author names and other potentially identifying information."

Decision after audit: Zenodo stays the primary generalist host. The counter-proposal's genuine advantage for Dataverse is the anonymized preview link for masked review. That one capability is now decision item O4 for AJS. Everything else in G7 is integrated below.

Recommendation at a glance

Asset	Host	Notes
Pre-registrations	OSF Registries	Unchanged service.
Statistical maps + anatomical ROIs (NIfTI)	NeuroVault	Free 3D web rendering. ROI files also go into the project's Zenodo record (R5).
Stats code, results output, supplemental results, study materials, Presentation/task code, stimuli	Zenodo	One record per project. One lab community. Records owned by the lab account, not personal student accounts (G7/R8).
Fallback generalist host: Harvard Dataverse (free, 1 TB per researcher, 2.5 GB per file, anonymized preview links). It becomes primary only if AJS decides that masked-review access to materials is a hard requirement (O4).		

Zenodo facts (retrieved 2026-08-28)

- Free. Up to 50 GB and 100 files per record. One-time increase to 200 GB is possible. The lab's target of about 1 GB per project fits easily.
- Items are kept for the lifetime of CERN, which has a program defined for at least 20 more years. Two geographic replicas, nightly tape backups, checksum tests.
- Every record gets a DOI. Updates make a new version DOI. A concept DOI represents all versions together. Whether the concept DOI resolves to the newest version is [UNVERIFIED: not confirmed on a Zenodo page; O1 tests it].
- Records can be open, embargoed, or restricted. The depositor approves access requests for restricted files.
- Zenodo participates in the NIH Generalist Repository Ecosystem Initiative and publishes an NIH DMSP guide.
- Deposit is one web form with an ORCID login. No git.

Lab workflow (integrated from G7)

Phase 1, pre-study:

1. Submit the pre-registration on OSF Registries.
2. Record the registration DOI in the project tracker.

Phase 2, data collection and analysis:

1. Keep working files on the lab Box tree. Box stays the canonical archive (R6).
2. Upload NIfTI maps and ROIs to the lab NeuroVault collection.

Phase 3, manuscript preparation:

1. Log in to Zenodo with the lab account.
2. Make one record for the project.
3. Add the lab README as the first file. The README is the central hub. It must link the OSF registration DOI, the NeuroVault collection, and the related paper (G7/R4).
4. Upload assets in the standard folders: `study_materials/`, `stats_code/`, `outputs_and_results/`, `supplemental/`.
5. Compress each folder with more than a few dozen files into one ZIP archive. Large loose file sets cause browser timeouts and break the 100-file cap.
6. Make sure that no file contains participant-level or identifiable data (R3).
7. Make sure that the lab has the right to post each stimulus and questionnaire (R2). Use restricted files for items that cannot be public.
8. Select the license deliberately. Defaults: CC-BY for materials, MIT for code. Never accept a public-domain (CC0) default for stimuli or clinical instruments (G7).
9. For journals with masked review, do not publish yet. See O4 for the interim rule.

Phase 4, publication and maintenance:

1. When the paper is accepted, publish the record and submit it to the lab community.
2. Put the version DOI in the paper's data-availability statement.
3. To update later: select "New version", replace files, and publish. An unpublished edit is invisible to readers, on Zenodo and on Dataverse alike (G7). Make sure that you publish.
4. Do not close or delete records without AJS's approval.

Alternatives examined

- Harvard Dataverse: named fallback, see above. Frictions on the record: draft-then-publish versioning that students can forget to publish, a CC0-leaning license default, tabular ingest of SPSS/Stata/Excel/R files, multi-layer metadata forms, and depositor-managed access requests that orphan when a student leaves (G3, G7).
- figshare: free 20 GB private storage, 20 GB per-file cap, DOIs. Commercial platform, weaker preservation guarantee.
- DRUM (UMD): free, DOIs, indefinite preservation, librarian support. 15 GB total cap, 2 GB per-file cap, updates by request. Candidate second archive for finished bundles (O3).
- Dryad, QDR, ICPSR, Vivli: fees, memberships, or managed access.
- GitLab, Codeberg, Forgejo: code forges of the same class as GitHub. Excluded, and they mint no DOIs.

Red-team register (cumulative)

- R1. Concept-DOI resolution [UNVERIFIED] → papers cite version DOIs; O1 live test.
- R2. Stimulus copyright → license check step; restricted files as fallback.
- R3. Participant privacy → summary-level content only; Zenodo policy prohibits confidentiality breaches for human-subjects data.

- R4. Fragmentation across three hosts → central-hub README with cross-links in every record.
- R5. NeuroVault persistence [UNVERIFIED] → ROI copies in Zenodo.
- R6. Single-host concentration → Box stays canonical; Zenodo is the public mirror.
- R7. Dataverse keeps one dataset DOI across versions, but its resolution behavior is also [UNVERIFIED] (G4) → the two hosts are now symmetric on this point; the tie-breakers are storage, preservation, and form simplicity, which favor Zenodo.
- R8. Orphaned ownership: records and access requests tied to a departing student's personal account become unmanageable → deposit from a lab account with AJS as owner.
- R9. Masked review: Zenodo has no anonymized preview link on the pages retrieved 2026-08-28. Dataverse has one. → O4.

Open items (owner: AJS)

- O1. Live test: publish one Zenodo record, update it, and examine where the concept DOI lands. Run the same test on one Dataverse dataset DOI if O4 stays open.
- O2. Approve the primary host, the lab community name, the lab deposit account, and the default licenses.
- O3. Decide whether finished bundles also go to DRUM as a second archive.
- O4. Decide whether reviewer access to materials during masked review is a hard requirement. If yes, either (a) switch the primary host to Harvard Dataverse for its Anonymous Preview URL, or (b) keep Zenodo and hold records unpublished until acceptance, with "available upon publication" in the submission.

Brief-lock checkpoint (revision round 2)

Constraints 1 through 7 were re-checked against this text. All hold. Constraint 7 keeps the caveat recorded in R1/R7. Scope change: a masked-review workflow was added to the deposit procedure. It extends the deposit procedure and adds no new host, so it stays inside the scope ceiling. No banned move occurred.

Significance, restated

OSF Projects closes to new content on 2026-11-16. With this plan, every new project gets one free, DOI-citable, CERN-backed public record, pre-registrations stay on OSF, NfTI assets stay on NeuroVault with a Zenodo copy, and masked review has an explicit rule. Students follow one phased procedure instead of making platform decisions.

Sources

[COS: OSF changes](#) · [OSF transition details](#) · [OSF repository guide](#) · [Zenodo policies](#) · [Zenodo size FAQ](#) · [Zenodo DOI versioning](#) · [Zenodo NIH guide](#) · [Harvard Dataverse for researchers](#) · [Dataverse user guide: dataset management](#) · [figshare limits](#) · [DRUM for data](#) · [NIH generalist repositories](#)

 ### fresh claude fable session provided with all of the above back and forth
 #####

Alex's prompt □

"i created a prompt. i fed it into claudie fable and into gemini 3.6. each devised answers. each red-teamed the others answer and updated their plan. i am going to share all of that with you. based on everything i pass along, i want you to devise a comprehensive finalized integrative response to my embedded prompt. feel free to ask any q's (e.g. via MC pops) or make suggestions, i can also upload this as a docx if you prefer. please also note that we do not want xlsx/sav/.R files to be auto-converted into another format"

Claude Fable asked Alex 3 multiple choice questions ...

Is reviewer access to materials during masked (double-blind) peer review a hard requirement? This is the one capability that separates the two candidates: Harvard Dataverse offers an anonymized preview link; Zenodo does not. Not a hard requirement (Recommended)

Scope: the OSF read-only date (Feb 19, 2027) also freezes currently active projects. Should the final plan cover only new projects, or also a migration path for active projects whose OSF pages will still need updates? New projects only

Who should own the deposits? Both drafts flag that records tied to a departing student's personal account become unmanageable. Shared lab account, AJS owner (Recommended)

What format do you want the final deliverable in? It will be saved to OUTPUTS/ under a project subfolder either way. Both

Claude Fable presented a draft proposal...

Alex ☐ anything else you can check, verify, or audit before we ship?

Claude Fable did so.

Alex ☐ anything else you can check, verify, test, or audit before we ship?

"There are a few more things I can test rather than just re-read. Three are live tests against real pages: whether Zenodo actually renders an .R file in the browser (which would close one [UNVERIFIED]), whether NeuroVault's own paper states it is free (which would anchor the weakest link with a PMID), and whether the sandbox URL resolves. Plus a script-based audit of every internal cross-reference in the document.

For the file-preview question (does Zenodo render an .R script in the browser?), no login is needed at all. The preview page is public; it's just blocked to my page-fetching tool. I can open it in the built-in browser pane and look, if you're happy for me to use the browser.

For the deposit-workflow questions (does "Can manage" allow publishing; does the concept DOI behave on a lab record; do .sce and .R files preview), the right place is the Zenodo sandbox (sandbox.zenodo.org), which is a separate test instance with its own accounts, so your real

credentials aren't involved anyway. If you want me to run that test, you'd sign in to the sandbox yourself in the built-in browser pane (it keeps its own session, so I never see the password), then I'd drive the deposit, publish, new-version, and sharing steps and report what I observe. It would take a sandbox account and, ideally, a second sandbox account to test the "Can manage" sharing path. Shall I start with the no-login preview check in the browser?

Fable did some tests

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### gemini red-team #####  
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```

#1. proceed with your plan. #2. in addition, incorporate this guidance from gemini and alex - gemini has some suggestions - "Critical Operational Vulnerabilities in Revision 3 While Revision 3 provides a tight, highly actionable framework, auditing its execution mechanics reveals five friction points and technical edge cases that will cause workflow failures for PhD students if unpatched.

1. The "Dead Reserved DOI" Reviewer Trap

- The Flaw: Section 5 (Step 5 & Masked Review) instructs students to reserve a Zenodo DOI, paste it into the manuscript's Data Availability statement, and keep the record in Draft until paper acceptance.
- The Failure: A reserved Zenodo DOI (10.5281/zenodo.XXXXXX) does not resolve on doi.org or zenodo.org until the record is formally Published. If a journal editor or reviewer clicks <https://doi.org/10.5281/zenodo.XXXXXX> during peer review, they will hit a hard 404 Page Not Found error. Reviewers routinely flag non-resolving DOIs as broken links or manuscript errors.
- The Fix: Clarify in the SOP that reserved DOIs must be formatted in the manuscript draft as plain text rather than active hyperlinks, accompanied by explicit phrasing: "Data and analysis scripts are deposited on Zenodo (DOI: 10.5281/zenodo.XXXXXX; link will activate upon publication)."

2. Shared Account 2FA & ORCID Terms of Service Conflicts

- The Flaw: Section 5 (One-time setup Step 1) establishes a single shared Zenodo account accessed via a lab email alias.
- The Failure:
 1. ORCID TOS Violation: Students cannot log in to a shared Zenodo account using ORCID, as ORCID strictly prohibits shared user profiles. Login must rely entirely on email/password.
 2. Two-Factor Authentication (2FA) Lockout: If CERN/Zenodo enforces 2FA on the shared account, authentication codes sent via SMS or email to AJS's phone/device will lock out students uploading files after hours.
- The Fix: Store the shared account's email/password alongside a shared TOTP (Time-based One-Time Password) seed directly inside the lab's password manager (e.g., Bitwarden/1Password) so all authorized lab members can generate 2FA tokens independently.

3. Relative-Path Code Execution Failures (Loose Scripts vs. Zipped Folders)

- The Flaw: Section 5 (Step 6) keeps analysis (.R, .py) and task (.sce) scripts loose in stats-code/, while zipping study-materials/ (stimuli) into .zip archives.
- The Failure: R, Python, and Presentation scripts rely on relative directory paths (e.g., `read.csv("../study-materials/stimulus_list.csv")` or `picture { file = "../stimuli/target.png"; }`). If an external researcher downloads the loose R script and the stimuli.zip file, running the script out-of-the-box will crash with a File Not Found error unless the archive is extracted into an identically named directory tree.
- The Fix: Add a mandatory execution rule to the SOP: "All relative path calls in code must assume a flat unzipped directory structure matching the folder layout defined in the README template."

4. The DataCite Harvesting & "Tombstone" Reality

- The Flaw: Section 5 (Step 11 & Section 3) treats the 30-day post-publication deletion window as a safety buffer for accidental deposits.
- The Failure: The moment the "Publish" button is pressed, Zenodo instantly registers the record's metadata with DataCite. Even if the record is deleted within 30 days, DataCite retains the metadata record permanently and issues an irreversible public Tombstone Page stating that the content was removed. Furthermore, web scrapers and academic bots harvest Zenodo files within minutes of publication, meaning sensitive data or participant info uploaded by mistake is exposed immediately.
- The Fix: Frame the two-person pre-publish check (Step 11) not as a routine proofread, but as a strict compliance gate. The 30-day window must be explicitly documented as an emergency procedure, not a soft safety net.

5. Output Folder File-Cap Breaches

- The Flaw: Section 5 (Step 6) specifically flags stimulus folders for zipping to stay under the 100-file cap, but leaves outputs-and-results/ unzipped by default.
- The Failure: Statistical pipelines routinely generate dozens or hundreds of individual plot output files (.pdf, .png), model summary .txt files, or permutation test outputs. A student depositing figures and secondary output tables can easily breach Zenodo's 100-file limit without touching the stimulus folder.
- The Fix: Expand the zipping rule in Step 6: "Any folder containing more than 15 individual files—including outputs-and-results/ and extended supplementary figure sets—must be compressed into a single .zip archive."

Recommended SOP Patch Summary To integrate these red-team fixes into Section 5 of the plan, update the following steps:

1. Step 1 (Account Setup): Specify email/password login and store the shared 2FA TOTP key in the shared lab password manager.
2. Step 5 (DOI Reservation): Mandate exact manuscript text for reserved DOIs ("link will activate upon publication") to prevent peer-review reviewer rejections.
3. Step 6 (Folder Compression & Relative Paths): Extend the 15-file zipping threshold to outputs-and-results/ and require relative code paths to mirror the unzipped README.md directory layout.

4. Step 11 (Pre-Publish Check): Re-emphasize that DataCite metadata harvesting is instantaneous upon pressing Publish, making the two-person privacy audit non-negotiable." alex notes that -- In addition to gemini's comments, i will note that the lab does not use a single unified box account (although we keep many things on shared servers, the files uploaded to these repositories is often coming from a user's local machine) -and- you would never want to make a single neurovault collection for multiple projects. it's one collection per paper. this should be corrected.

one more addendum - <https://neurovault.org/FAQ> and other sections of that website are a better place to look than the original validation paper

back and forth edits and clarifications #####
#####

alex □

first a question - is a zenodo collection shareable with editors/reviewers/colleagues before the doi is finalized at the time of publication?

follow up question. prior to the transition, we would publish and make public the doi to the project osf collection at the time we submitted a paper or even earlier. we would then update the collection based on requests/suggestions from reviewers. what is the closest approximation of that in zenodo? i will also note that it's fine for a study collection to have multiple doi's across iterations. we would simply include the most recent one in a resubmitted manuscript or in an accepted MS / publication. does that make sense? i want to be able to do that, as close as possible, in zenodo. can i ?

claudio □

Yes, and it maps almost one-to-one. Zenodo's versioning model is built for exactly the workflow you describe.

The closest approximation: at submission (or earlier), publish the record. It gets a version DOI (v1) and, at the same moment, a concept DOI that "will always resolve to the latest" version. When reviewers ask for changes, open the record, click "New version," add or replace files, publish. That creates v2 with its own DOI; v1 stays online unchanged, and the concept DOI now lands on v2. Put the newest version DOI in the resubmission and again in the accepted manuscript, exactly as you did with OSF, or put the concept DOI in the paper if you want the link to keep following later corrections. Changes that touch only metadata (adding the published paper's DOI, fixing an author list, editing the description) don't need a new version at all; they can be made to the published record directly. All of this is on the pages already cited in the plan (manage-versions, manage-records, and the versioning FAQ), and the concept-DOI behavior was tested live.

Two differences from OSF are worth knowing. First, OSF let you edit files in place under one DOI; Zenodo freezes each version's files and gives you a new DOI per iteration. You've said that's fine, and it is arguably better for reviewers, since the DOI they were sent always shows what they were sent. Second, every published version stays public permanently. There is no way to retire v1 once v2

exists, other than the 30-day emergency deletion. So the "don't put anything in that can't stay public" check applies at the first publication, not at acceptance.

One consequence for the plan: revision 6 says "keep the record in draft until acceptance," which was written around masked review. Your actual practice is to go public at submission, and you've already said masked review isn't a hard requirement. So the SOP should flip: publish at submission by default, new version per revision round, draft-until-acceptance only as the documented exception for a journal that demands it. That also simplifies steps 5 and 11 (the reserved-DOI wording becomes unnecessary in the default path, and the compliance gate moves to the first publication). If you'd like, I'll make that revision 7 along with the preview-link point from the previous question.

Alex - yes, make all of those revisions. take care to not mess up anything else accidentally. and please make a point of incorporating this workflow (and the rationale for it) into the plan

Alex - the step by step instructions are a little confusing because normally "publication" means "acceptance and publication of a paper in a journal or book." revise the step by step instructions to make explicit whether 'submission' 'revision' 'publication' are for the collection vs. the paper. make sense?

Alex - this is confusing as well --> "Just before the manuscript is submitted to the journal (or earlier, at AJS's discretion): the student copies the upload set and README to the project's folder on the lab's shared server as one dated folder (the archive copy, step 2); then AJS or the staff scientist releases the record from the lab account (Zenodo's "Publish" button) and submits it to the lab community. The record now has version DOI v1 and its concept DOI. Cite the v1 version DOI in the manuscript that goes to the journal. Make the NeuroVault collection public at the same time (step 3). Manuscript revision: release a new record version. When reviewers' requests change the materials, code, or results: make the changes, open the record, choose New version, add or replace files, add a dated entry to the README's change log saying what changed and why, make the archive copy, and have AJS or the staff scientist release the new version. Cite the newest version DOI in the resubmitted manuscript. Earlier versions remain online at their own DOIs; that is expected, and it lets a reviewer or editor see exactly what each round contained. A new version left in draft is invisible to everyone outside the lab."

- which shared server - maryland or zenodo? why do you need that step? alex creates the collection and shares w/ project lead/student. student uploads everything to zenodo collection. second person checks. then alex hits go/publish and releases the collection into the wild where it can be read by others.

Claude goes and fixes

Ajs - please check test audit and verify one more time before we ship. ask q's via mc pops

Build is clean. Before I ship revision 10, four decisions remain that are yours and that I can write into the document now rather than leave as open items:

Open item O7: public NeuroVault data are CC0 (public domain) by the site's own FAQ, while the plan's Zenodo default for materials is CC BY 4.0. Which rule for ROI files? CC0 on both hosts (Recommended)

Open item O3: should finished bundles also be deposited in DRUM (UMD Libraries) at manuscript acceptance as a frozen second archive? With the lab-server copy removed, this is the only remaining mitigation for a Zenodo outage or policy change. No, Zenodo alone

Open item O2: approve the defaults written into the SOP? (Community name 'Shackman Lab, University of Maryland'; CC BY 4.0 for materials and results; MIT for code; a lab email alias for the shared account.) 2. ShackmanLab is the name

Do you want a scheduled reminder in early October to check on the sandbox pilot (O5) before the November 16 OSF cutoff? It would arrive as a fresh Claude task on the date chosen. table for now

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### gemini red-team #####  
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An audit of Revision 9 reveals six remaining operational edge cases, permission loopholes, and workflow failure points. While Revision 9 successfully resolves the primary host decision and concept-DOI mechanics, executing it as written will lead to accidental premature releases, script execution errors, and repository desynchronization.

1. The Zenodo "Publish" Permission Loophole (Step 4 vs. Step 11/12)

- **The Flaw:** Step 4 states that the lab account owns the record and "is the only account that releases a version," while the student's personal account is given "Can edit" access.
- **The Failure:** In Zenodo's permission model, any account granted "Can edit" on a draft sees the upload interface including the green **"Publish"** button. Zenodo's UI does not restrict or hide the Publish button for non-owner editor accounts. A student finishing their uploads could easily click "Publish" directly from their personal login.
- **The Consequence:** Clicking "Publish" immediately registers the DataCite DOI and makes the record public before the mandatory Step 11 second-person compliance check or AJS approval occurs. Once clicked, the record is permanently live, and withdrawal generates a public tombstone page.
- **The Fix:** Add an explicit operational rule in Step 4 and Step 5: *"Students working via 'Can edit' access must NEVER click the 'Publish' button under any circumstances. Draft submission stops at file save; release is performed exclusively by AJS or the staff scientist logged into the primary lab account."*

2. macOS ZIP Extraction & Dynamic Path Failures (Step 6)

- **The Flaw:** Step 6 requires relative paths in scripts to assume all ZIP archives are unzipped in place, and mandates zipping outputs-and-results/ if it contains over 15 files.
- **The Failure:**
 1. **OS Artifacts:** Standard macOS compression includes hidden __MACOSX folders and .DS_Store files, or wraps files inside an extra root directory (e.g., outputs-and-results/outputs-and-results/). Unzipping on Linux/Windows can disrupt the expected flat directory path.
 2. **Write-Path Crashes:** R and Python statistical pipelines frequently write plots or model outputs dynamically (e.g., ggsave("outputs-and-results/fig1.png")). If outputs-and-results/ was uploaded as a ZIP file, a reader running the script after extracting files will hit a Directory not found error unless the script programmatically creates missing output directories.
- **The Fix:**
 - Require clean compression (e.g., using command-line zip -r -X archive.zip folder/ or stripping OS metadata).
 - Update the code rule in Step 6: *"All analysis scripts must programmatically check for and create required output directories (e.g., dir.create("outputs-and-results", showWarnings = FALSE) in R or os.makedirs("outputs-and-results", exist_ok=True) in Python) before executing write commands."*

3. The Non-CC0 Atlas/ROI Orphan Scenario (Step 3 & Section 3b)

- **The Flaw:** Section 3b correctly notes that all public data on NeuroVault are released under CC0, meaning ROIs derived from third-party atlases or parcellations with restrictive licenses cannot be posted to NeuroVault. Step 3 instructs students: *"Confirm that no ROI derives from an atlas or parcellation whose license forbids public-domain (CC0) redistribution."*
- **The Failure:** Step 3 explains what *not* to do, but fails to define the alternative pathway when a study uses a non-CC0 atlas (e.g., specific proprietary or commercial brain parcellations). If a student cannot upload the ROIs to NeuroVault, the NeuroVault collection will be incomplete, and the student may get stuck or leave the files out of the public deposit entirely.
- **The Fix:** Add an explicit exception rule in Step 3 and Step 6: *"If an ROI or map is derived from a third-party atlas whose license forbids CC0 redistribution, host the ROI file exclusively in the Zenodo rois/ folder under the appropriate source license, and add a note in the NeuroVault*

collection description indicating that specific ROIs are hosted solely on Zenodo due to upstream licensing terms."

4. Phase 4 NeuroVault-Zenodo Revision Desynchronization (Step 13)

- **The Flaw:** Step 13 details how to handle manuscript revisions on Zenodo ("Release a new record version"), but remains entirely silent on NeuroVault.
- **The Failure:** If reviewers ask for revised fMRI analysis parameters, additional contrast maps, or modified ROIs during peer review, the student will release v2 on Zenodo but leave the old statistical maps on NeuroVault.
- **The Consequence:** The NeuroVault collection will contradict the revised manuscript and the updated Zenodo repository.
- **The Fix:** Expand Step 13: *"If manuscript revisions alter statistical maps or ROIs, update or add the corresponding map files in the project's NeuroVault collection at the same time the new Zenodo version is prepared."*

5. Community Assignment Timing Friction (Step 1 & Step 12)

- **The Flaw:** Step 12 states that after releasing record v1, *"AJS then adds the record to the lab's Zenodo community."*
- **The Failure:** On Zenodo, community assignment can be selected directly within the metadata draft form under the "Communities" section before release. Doing it post-release requires navigating through community administrative pages to send and accept curation requests, adding unnecessary manual steps.
- **The Fix:** Move community selection into Step 5 (Draft Preparation): *"Select the 'Shackman Lab, University of Maryland' community in the Communities field during draft metadata setup."* When AJS releases the draft, it automatically populates the lab community without post-publication curation steps.

6. Version DOI Stale References During Page Proofs (Step 13, 14, 15)

- **The Flaw:** Step 13 instructs students to cite the newest version DOI (e.g., v2) in the resubmitted manuscript text.
- **The Failure:** Publishers frequently fail to update DOI strings in the manuscript text if changes occur during final page proofs or minor revisions. If a minor code tweak creates a v3 Zenodo release right at acceptance, but the published paper prints the v1 or v2 version DOI, readers clicking the link in the paper will land on an outdated code version without realizing a newer version exists.

- **The Fix:** Clarify in Step 15 (Publication) that during page proof review, students must verify that the printed DOI matches the final released Zenodo version DOI, OR ensure the text explicitly references the Concept DOI when referring to the ongoing project repository.

Patch Instructions for Revision 10

To finalize the SOP, apply the following direct edits to Section 5:

1. **Step 4 (Draft Creation):** Add an explicit UI directive: *"Students with 'Can edit' access must NEVER click 'Publish'. Publishing is restricted to AJS/staff scientist logged into the lab account."*
2. **Step 5 (Draft Setup):** Add: *"Select 'Shackman Lab, University of Maryland' under Communities during initial draft setup."*
3. **Step 6 (File Compression & Execution):** Mandate clean zip metadata removal and require scripts to programmatically create target output directories before writing.
4. **Step 3 & 6 (Non-CC0 ROIs):** Add the explicit fallback: non-CC0 ROIs stay exclusively in Zenodo rois/ with explanatory notes on NeuroVault.
5. **Step 13 (Revisions):** Add mandatory NeuroVault collection updates whenever fMRI maps or ROIs are revised.
6. **Step 15 (Page Proofs):** Mandate verifying the version DOI string during publisher page proof review.

#####

back and forth

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- Claude edits based on gemini red team
- Ajs - lightly audit these 3 files for housekeeping errors or other accidents during the last round of revision. once clean, re present

#####

final

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