# Trusted repositories and registries

Questions can be sent to the journal's STAR team (psych.star.team@gmail.com).

#### **Box 1. Summary**

- Psychological Science requires authors to use "trusted" repositories and registries for sharing materials/data/analysis scripts and preregistration.
- A trusted repository/registry must meet several essential criteria, including long-term preservation, file immutability, link stability, and credibility.
- There is no comprehensive list of trusted platforms, but we have vetted some repositories and registries commonly used in psychology.
- This guidance document is intended to be pragmatic and advisory only; the journal reserves the right to use case-by-case editorial discretion to determine a platform's suitability.

### What is a trusted repository / registry?

To be considered trusted by Psychological Science, a repository / registry must meet four Essential Criteria (Box 2).

#### Box 2. Essential Criteria

- A. **Long-term preservation and back-up strategy** a viable plan to protect and maintain files in the short and long-term.
- B. **File immutability** the ability to create versions of files that cannot be deleted or modified (except in exceptional circumstances)
- C. **Link stability** the ability to link to files using stable and persistent identifiers.
- D. **Credibility** the platform should be owned/managed by a credible third party.

The Essential Criteria are derived from existing frameworks (TRUST Principles, CoreTrustSeal, Connolly et al., 2023). We have avoided details about how these criteria are met in practice in order to allow for editorial discretion on a case-by-case basis. This flexibility is necessary because the landscape of available repositories/registries and the standards by which they are

judged is evolving rapidly. Examples of how some repositories meet the criteria in practice can be found in Table 1. Note that other repository/registry criteria (e.g., adhering to certain meta-data standards) may be considered desirable, but they are not a requirement at this time.

## Where can I find a list of trusted repositories / registries?

There is no exhaustive list of repositories and registries that meet the Essential Criteria, but below you can find a list of commonly used repositories (Table 1) and registries (Table 2) that Psychological Science considers to be trusted. Note that for some of these platforms, users may need to take additional steps to ensure that the essential criteria are met. We've also created a list of some commonly used storage options that are *not* considered trustworthy because they do not meet one or more of the Essential Criteria (Table 3).

**Table 1**. Repositories considered trustworthy by Psychological Science because they meet the Essential Criteria. Note that this list is not exhaustive and should be considered advisory — editorial judgement is the final arbiter of a platform's suitability.

Repository	Back up and long-term preservation	File immutability	Stable and persistent links/identifiers	Credible third party
Open Science Framework (https://osf.io/)	Criterion met.  Preservation via The Internet Archive and a preservation fund (link).  Back-ups via cloud services (link).  Note that these policies may not apply to files linked via third party storage services, so files must be stored	Criterion met with user action.  Public files are read-only but only if they are registered (link). Even registered files can be deleted by authors, so authors must agree that they will only delete files in exceptional circumstances and will notify	Criterion met.  Links (e.g., https://osf.io/xxx xx) are considered persistent identifiers. Users can also generate DOIs (link).	Criterion met.  The Center for Open Science, a 501(c)3 non-profit (link).

	or registered (link) on the Open Science Framework in order to meet this criterion.	the journal if they do so.		
ResearchBox (https://research box.org/)	Criterion met.  Preservation via Internet Archive (link).  Back-ups via cloud services (link).	Criterion met.  Can create immutable file versions that cannot be directly modified by authors (link).	Criterion met.  Links (e.g., https://research box/xx) are considered persistent identifiers.	Criterion met.  Wharton Credibility Lab. (link).
Zenodo (https://zenodo. org/)	Criterion met.  Preservation and back up to CERN's Data Centre (link).	Can create immutable file versions that cannot be directly modified by authors (link).	✓ Criterion met.  Users can generate DOIs (link).	Criterion met.  European Council for Nuclear Research (CERN; link) and Open Access Infrastructure for Research in Europe (OpenAIRE; link).
ICPSR (https://www.icp sr.umich.edu/) openICPSR (https://www.op enicpsr.org/)	Criterion met.  Long term preservation strategy and back-up to multiple servers (link and link).	Criterion met with user action.  Public files can be "unpublished" by authors (link), so authors must agree that they will only delete files in exceptional circumstances and will notify the journal if they do so.	Criterion met.  Users can generate DOIs (link and link).	Criterion met.  Institute for Social Research (link) at the University of Michigan (link).
Figshare	Criterion met.	Criterion met.	Criterion met.	Criterion met.

(https://figshare. com/)	Internal preservation strategy (link).  Back-ups via multiple servers (link).	Can create immutable file versions that cannot be directly modified by authors (link).	Users can generate DOIs (link).	Digital Science / Springer Nature (link).
UK Data Service (https://ukdatase rvice.ac.uk/)	Criterion met.  Long-term preservation strategy and back-ups via multiple servers (link).	Criterion met.  Can create immutable file versions that cannot be directly modified by authors (link).	Criterion met.  Users can generate DOIs (link).	Criterion met.  UK Research and Innovation (UKRI) and The Economic and Social Research Council (ESRC) (link).

**Table 2**. Registries considered trustworthy by Psychological Science because they meet the Essential Criteria. Note that this list is not exhaustive and should be considered advisory — editorial judgement is the final arbiter of a platform's suitability.

Registry	Back up and long-term preservation	File immutability	Stable and persistent links/identifiers	Credible third party.
Open Science Framework (https://osf.io/)	Preservation via The Internet Archive and a preservation fund (link).  Back-ups via cloud services (link).	Criterion met with user action.  Registrations can be withdrawn by authors (link), so authors must agree that they will only withdraw registrations in exceptional circumstances and will notify the journal if they do so.	Criterion met.  Users can generate DOIs (link).	Center for Open Science, a 501(c)3 non-profit (link).

AsPredicted (https://aspredict	Criterion met.	Criterion met.	Criterion met.	Criterion met.
ed.org/)	Preservation via Internet Archive (link). Back-ups via cloud services (link).	Can create immutable registrations that cannot be directly modified by authors (link).	Links (e.g., https://aspredict ed.org/xxxxx.pdf ) are considered persistent identifiers.	Wharton Credibility Lab. (link).

**Table 3**. Popular modes of sharing that *are not considered trustworthy* by Psychological Science because they do not meet all the Essential Criteria.

Mode of sharing	Back up and long-term preservation	File immutability	Stable and persistent links/identifiers	Credible third party.
Github (https://github.co m/)  Note: github content can be linked to several Trusted Repositories, for example, the OSF (NB. files must also be registered) or Zenodo.	Criterion met.  Preservation via The Internet Archive, the Software Heritage Foundation, and other schemes (link).  Back-ups via multiple datacenters (link).	Cannot create immutable files.	Criterion not met.  Links may not be stable or persistent.	Criterion possibly not met.  Microsoft (link).  Some concern about commitment to platforms that support open science after the closure of MRAN (link).
Personal websites	Criterion typically not met.  No credible back-up or long-term preservation strategy.	Criterion typically not met.  Cannot create immutable files.	Criterion typically not met.  No stable / persistent links.	Criterion typically not met.  Author managed — not managed by a credible third party.
Personal cloud storage (e.g., Dropbox, Google Drive, etc)	X Criterion typically not met.	X Criterion typically not met.	X Criterion typically not met.	X Criterion typically not met.

May have short-term back-ups but typically no long-term preservation strategy.	Cannot create immutable files.	No stable / persistent links.	Author managed — not managed by a credible third party.
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