

Recognising Open Research Practices in Hiring Policies: *Modular Certification Initiative*

Summary and aims: One potentially powerful way to normalise open research practices is to explicitly value them in hiring policies for institutional staff positions that involve research. Here, we propose a modular self-certification scheme for employers that we believe could help promote open science practices in recruitment. Our approach is modelled on the highly successful [Transparency and Openness Promotion guidelines](#). Signatories will self-certify the extent to which evidence of open scientific practices is weighed in the recruitment of predoctoral, postdoctoral and faculty level candidates. Signatories could be individual principal investigators, departments, institutions, or funding agencies. Before launching this scheme more widely and seeking signatories, we are seeking feedback on the proposed levels below. All critical comments are welcome, so please help us get this right!

With thanks, Chris Chambers and Felix Schönbrodt

We want to thank Daniel Mietchen, ..., ... for helpful feedback to an earlier draft.

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For staff roles involving **at least some research**, signatories (employers) self-certify to meet ONE of the levels below. Signatories may wish to apply different levels of commitment for different grades or type of appointment. **Typical categories could be (a) PhD students/ research assistants, (b) Post-Doc, or (c) faculty (i.e., associate and full professors).**

| | Level 0 | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|--|
| | Individual or organisation makes no commitment to mention open research practices in published hiring policies or advertised research job descriptions. | Individual or organisation commits to mentioning open research practices in advertised research-active job descriptions but does not commit to conferring any advantage to candidates who demonstrate greater open science track records. | Individual or organisation makes no commitment to mention open research practices in advertised research-active job descriptions but does include them as desirable characteristics in published hiring policy. To the extent that open practices are legally and ethically possible, and all else being equal, candidates with greater open science track records may be preferred over candidates with no or lesser open research track record. | Individual or organisation commits to including proven track record of open research practices as desirable characteristics (but not necessarily as essential characteristics) in all advertised research-active job descriptions. To the extent that open practices are legally and ethically possible, and all else being equal, candidates with greater open science track records are preferred over candidates with no or lesser open research track record. | Individual or organisation commits to including proven track record of open practices in all advertised research-active job descriptions as essential characteristics. Only candidates with an open research track record are interviewed and/or appointed. To the extent that open practices are legally and ethically possible, all else being equal, candidates with greater open science track records are preferred over candidates with lesser open research track record. |
| [ENTER job grade/type here] | | | | | |
| (put examples in an appendix once we have | | | | | |

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| some early adopters) | | | | | |
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Definitions of key terms

Open science track record: Minimal definition is defined by the signatory to include at least one instance within at least one of the following practices: **open data**, **open digital study materials/code**, **public preregistration** of study protocols, **open access publishing**, publication of **preprints**, and **open peer review**. For the first three categories, evidenced examples must meet the conditions outlined for the awarding of [open data, open materials/code and preregistered badges by the Center for Open Science](#) to qualify as open practices. Specifically:

Criteria for data archiving to be classed as ‘open data’:

1. Digitally-shareable data are publicly available in an open-access repository. The data must have a persistent identifier and be provided in a format that is time-stamped, immutable, and permanent (e.g., university repository, a public registration on the [Open Science Framework](#), or an independent repository at [www.re3data.org](#)).
2. A data dictionary (for example, a codebook or metadata describing the data) is included with sufficient description for an independent researcher to reproduce the reported analyses and results. Data from the same project that are not needed to reproduce the reported results can be kept separate.
3. An open license allowing others to copy, distribute, and make use of the data while allowing the licensor to retain credit and copyright as applicable. Creative Commons has defined several licenses for this purpose, which are described at [www.creativecommons.org/licenses](#). CC0 for data and CC-BY for content are strongly recommended (anything beyond CC-BY is actively discouraged)

Criteria for materials/code archiving to be classed as ‘open digital study materials/code’

1. Digitally-shareable materials are publicly available in an open-access repository. The materials must have a persistent identifier and be provided in a format that is time-stamped, immutable, and permanent (e.g., university repository, a registration on the [Open Science Framework](#), or an independent repository at [www.re3data.org](#)). Materials and code should conform to the [FAIR principles](#): findable, accessible, interoperable and reusable.
2. Infrastructure, equipment, biological materials, or other components that cannot be shared digitally are described in sufficient detail for an independent researcher to understand how to reproduce the procedure.
3. Sufficient explanation for an independent researcher to understand how the materials relate to the reported methodology.

Criteria for ‘public pre-registration’

1. A public date-time stamped registration in an institutional registration system (e.g., [ClinicalTrials.gov](#), [Open Science Framework](#), [AEA Registry](#), [EGAP](#)) OR via a journal as a published [Registered Report](#)
2. Registration pre-dates the intervention / data collection.
3. Registered design and analysis plan corresponds directly to reported design and analysis. Deviations are clearly marked and justified.
4. Full disclosure of results in accordance with registered plan.

Criteria for 'Open Access'

1. The final (post-refereeing) version of a published paper is provided either as [green open access](#) or [gold open access](#).
2. In case of green open access (i.e., self-archiving), the paper is shared via a non-commercial, disciplinary or institutional repository (e.g., arXiv, or one of the [OSF preprint servers](#), such as [PsyArXiv](#) or [LawArXiv](#)).

Criteria for 'Preprints'

1. Unpublished papers are shared via an institutional repository (e.g., arXiv, or one of the [OSF preprint servers](#), such as [PsyArXiv](#) or [LawArXiv](#)).

Criteria for 'Open Peer Review'

1. Open peer review can be either pre-publication or post-publication.
2. Open peer review must be findable, freely and publicly accessible, and signed (anonymous reviews cannot count in a hiring process).
3. Open peer review must have a persistent identifier, such as a stable URL at [PubPeer](#) or [PubMed Commons](#).

Advertised job description: the publicly advertised description that includes the person specification and requirements of a job.

Hiring Policy: the individual or institution's publicly accessible policy that guides hiring practices.

Essential characteristics: Professional criteria that are essential for a candidate to be interviewed and/or appointed.

Desirable characteristics: Professional criteria that are not essential for a candidate to be interviewed and/or appointed but which provide a competitive advantage.

Process for signing

Step 1

Specify which type of job the signing applies to (e.g. "All postdoctoral research positions", "All faculty appointments", "Professor level appointments only")

Specify date of signature

Email address of signatory (not published; used for confirmation only)

Indicate who is signing (e.g. individual or institution, department etc) (free text entry)

Step 2

Signatory choose which of the following practices are eligible for being labelled as "open practices" in a candidate's track record

Open data ☐

Open materials ☐
Preregistration ☐
Open access publishing ☐
Preprints ☐
Open peer review ☐

Step 3

Signatory chooses the criterion for determining the quantity of eligible instances that are required to be evidenced within each selected practice for a candidate to have an “open research track record”

- At least one demonstrated instance of each selected practice
- At least ____ demonstrated instances of each selected practice
- Custom weighted model
 - Choose how many of each are required (table)
- Other (specify) (free text entry)

Step 4

Signatory chooses level (0, 1, 2, 3, 4)

Step 5

Preview and confirmation: The signatories' choices are previewed. Option to confirm, edit or cancel entry. Once confirmed, an email is sent to the signatory's chosen email address with a confirmation URL. Once confirmed via email the entry is published.

Signatories should provide a link to their public hiring policy (which should match the entries of the signature).

Optionally we could validate their commitment in our app against the public hiring policy of their website. We could validate both against each other, and provide a “Validated!” badge.

I.e., everybody can sign up publicly in the app, but only some get the “validated” badge.

Other features

After signing, signatories need an option to edit or delete their entry. For instance, this could be a button that says “Edit or delete my entry”, which when clicked prompts the user to enter the email address they used to sign. An email is then sent to signatory containing the URL for their entry (taking them to Step 1 above, but prefilled with their existing entries).