Policies for citing software or tools (If found, rules on what to do, why to do it that way, and when and when not to do it):

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**HIGHLIGHTS**

**Journals** (Nature, Nature Methods, Science, PNAS, Public Library of Science, Plus One, Cell)

* No journal specifically gave guidance on how to format citations for software or tools.
* Every journal discussed the importance of sharing/making available datasets and “methods and materials”
* Generally highly encouraged to store datasets in public repositories (sometimes suggested specific repositories)
* **Nature (and Nature Methods)** guidelines for flow cytometry request that one “identify the instrument and software used to collect and analyse experimental data.”
* **Nature Methods** guideline for methods section was that it should provide “all technical details necessary for the independent reproduction of the methodology, without referring to a chain of bibliographical references.”
* **Nature Methods** article on “social software” indicated that
  + Software that is custom-developed as part of novel methods is as important for the method's implementation as reagents and protocols. Such software, or the underlying algorithms, must be made available to readers upon publication.” http://www.nature.com/nmeth/journal/v4/n3/full/nmeth0307-189.html
* **Science:** “All computer codes involved in the creation or analysis of data must also be available to any reader of *Science*.”
* **PNAS:** “Authors must indicate their specific contributions to the published work. This information will be published as a footnote to the paper. Examples of designations include: Designed research, Performed research, **Contributed new reagents or analytic tools,** Analyzed data, Wrote the paper”
* **PNAS**: “Before publication, authors must deposit large datasets … in an approved database and provide an accession number for inclusion in the published paper.”
* **PloS ONE**: Detailed info on how to make software available where “software is the central part of the paper....When the software or algorithm is not central to the paper, we nevertheless encourage authors to make all relevant materials freely available.”
* **Cell**: No mention of software or tools handling

**Style Guides** (APA, MLA, Chicago, ACM)

* Only APA appears to give direct instructions on how to cite software (though still need to find MLA info)

#### **APA:** “Computer Software/Downloaded Software: Do not cite standard office software (e.g. Word, Excel) or programming languages. Provide references only for specialized software.

Ludwig, T. (2002). PsychInquiry [computer software]. New York: Worth.

Software that is downloaded from a Web site should provide the software’s version and year when available.

Hayes, B., Tesar, B., & Zuraw, K. (2003). OTSoft: Optimality Theory Software (Version 2.1) [Software]. Available from http://www.linguistics.ucla.edu/people/hayes/otsoft/”

**DataCite** (http://www.datacite.org)

Creator (PublicationYear): Title. Publisher. Identifier

Creator (PublicationYear): Title. Version. Publisher. ResourceType. Identifier

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**NATURE**

Manuscript Formatting Guide: <http://www.nature.com/nature/authors/gta/index.html>

No reference to software or tools in citing policies for articles or letters. Nature does have a feature called “Technology Features” with the following guidelines:

“These articles are news-style reports, and are published a few times a year to review techniques and technologies in fast-moving fields of research. For further information, contact techfeatures@nature.com.”

Criteria for Publication: <http://www.nature.com/nature/authors/get_published/#a1>

* **large dataset papers:** should aim to either report a fully comprehensive data set, defined by complete and extensive validation, or provide significant technical advance or scientific insight.
* **technical papers:** : papers that make solely technical advances will be considered in cases where the technique reported will have significant impacts on communities of fellow researchers.

Data and Materials Availability (also applies to Nature Methods) <http://www.nature.com/authors/policies/availability.html>

**Availability of data and materials**

An inherent principle of publication is that others should be able to replicate and build upon the authors' published claims. **Therefore, a condition of publication in a Nature journal is that authors are required to make materials, data and associated protocols promptly available to readers without undue qualifications in material transfer agreements.** Any restrictions on the availability of materials or information must be disclosed to the editors at the time of submission.

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Details about how to share some specific materials, data and methods can be found in the sections below. **The preferred way to share large data sets is via public repositories.**

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**Flow cytometry**

Every manuscript that contains flow cytometry experiments should identify in the Methods section all antibody reagents by clone identifier, vendor and fluorochrome. **Authors should identify the instrument and software used to collect and analyse experimental data.**

((Possibly here, like the DNA obtained from spectographs, the software is seen as fundamental to the creation of the data (ie prior to analysis))).

**NATURE METHODS**

Guide to Authors: <http://www.nature.com/nmeth/authors/index.html> and

Manuscript Submission Guidelines: <http://www.nature.com/nmeth/authors/submit/index.html>

No reference to software or tools in citing policies.

Announcement that Methods Section now online with short methods section in printed article: <http://www.nature.com/nmeth/journal/v6/n5/full/nmeth0509-313.html>

Article re “Social Software”: <http://www.nature.com/nmeth/journal/v4/n3/full/nmeth0307-189.html>

(Summary: “Software that is custom-developed as part of novel methods is as important for the method's implementation as reagents and protocols. Such software, or the underlying algorithms, must be made available to readers upon publication.”)

Description of Content Types (Article): <http://www.nature.com/nmeth/authors/article_types/index.html>

An **Article** is a technical report of primary research data on a new technique that is likely to be influential. This format is not a review of technology, but its primary report in the literature. Articles include a detailed description of the method, including all the technical details necessary to its reproducibility, and the results of a validation study. In order to guarantee immediate practical relevance, Articles must show an application of the new method to an important biological question and demonstrate its advantage over existing approaches. Validation of the new method and demonstration of its superiority over existing techniques most often involve novel biologically relevant data. **However since the focus is on the technology, providing significant new insight into a biological problem is not a requirement.**

Articles begin with an unreferenced abstract (typically 150 words) and are divided into separate sections for Introduction, Results, Discussion and Methods. Introduction and Discussion are brief and focused, the Results section usually contains a general description of the method followed by its validation, and **the Methods section provides all technical details necessary for the independent reproduction of the methodology, without referring to a chain of bibliographical references.** The main text (excluding abstract, Methods, references and figure legends) is 2,500 - 3500 words. Articles have no more than 6 display items (figures and tables). The Results and Methods should be divided by topical subheadings; the Discussion may contain subheadings at the editors' discretion. If statistical testing was used to analyze the data, the Methods section must contain a subsection on statistical analysis. References are typically no more than 30.

**SCIENCE**

Preparing Your Initial Manuscript: (<http://www.sciencemag.org/site/feature/contribinfo/prep/prep_init.xhtml>): No mentions of tools or software

Science Reference Style: (http://www.sciencemag.org/site/feature/contribinfo/prep/res/refs.xhtml): No mention of tools or software, though they do mention data:

Data supporting the results or conclusions should be included in the paper or Supporting Online Material or must be archived in an [appropriate database](http://www.sciencemag.org/about/authors/prep/gen_info.dtl#datadep) at the time of publication and made available for reviewers.

General Information for Authors:

<http://www.sciencemag.org/site/feature/contribinfo/prep/gen_info.xhtml>:

**Data and materials availability** All data necessary to understand, assess, and extend the conclusions of the manuscript must be available to any reader of *Science*. **All computer codes involved in the creation or analysis of data must also be available to any reader of *Science*.** After publication, all reasonable requests for data and materials must be fulfilled. Any restrictions on the availability of data, codes, or materials, including fees and original data obtained from other sources (Materials Transfer Agreements), must be disclosed to the editors upon submission. If there are any MTAs pertaining to data or materials produced in this research, or that you have agreed to in conducting the research that restrict you from providing data or materials, please describe these and send the editor of your manuscript a copy of these specific MTAs. Fossils or other rare specimens must be deposited in a public museum or repository and available for research.

Supplementary Materials: <http://www.sciencemag.org/site/feature/contribinfo/prep/prep_online.xhtml>: No mention of tools or software. Methods info now in supplementary materials:

**Materials and methods** -- *Science* now requests that, in general, authors place the bulk of their description of materials and methods online as supplementary material, providing only as much methods description in the print manuscript as is necessary to follow the logic of the text. (Obviously, this restriction will not apply if the paper is fundamentally a study of a new method or technique.)

**PNAS**

Submission Guidelines: <http://www.pnas.org/site/misc/iforc.shtml#submission>

Authorship:

All collaborators share some degree of responsibility for any paper they coauthor. Some coauthors have responsibility for the entire paper as an accurate, verifiable report of the research. These include coauthors who are accountable for the integrity of the data reported in the paper, carry out the analysis, write the manuscript, present major findings at conferences, or provide scientific leadership to junior colleagues. Coauthors who make specific, limited contributions to a paper are responsible for their contributions but may have only limited responsibility for other results. While not all coauthors may be familiar with all aspects of the research presented in their paper, all collaborators should have in place an appropriate process for reviewing the accuracy of the reported results. **Authors must indicate their specific contributions to the published work. This information will be published as a footnote to the paper. Examples of designations include:**

* Designed research
* Performed research
* **Contributed new reagents or analytic tools**
* Analyzed data
* Wrote the paper

An author may list more than one contribution, and more than one author may have contributed to the same aspect of the work.

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**Databases** (under **Data and Materials**): Before publication, authors must deposit large datasets (including microarray data, protein or nucleic acid sequences, and atomic coordinates for macromolecular structures) in an approved database **and provide an accession number for inclusion in the published paper.** When no public repository exists, authors must provide the data as SI online or, in special circumstances when this is not possible, on the author's institutional Web site, provided that a copy of the data is provided to PNAS.

**PUBLIC LIBRARY OF SCIENCE**

Doesn’t appear to list their citation policies apart from the individual journals they publish.

**PLoS ONE**

Guidelines for Authors: <http://www.plosone.org/static/guidelines.action>

Does not give info on citing software or tools in references.

Editorial and Publishing Policies: <http://www.plosone.org/static/policies.action>

Authorship: All PLoS journals base their criteria for authorship on those outlined in the International Committee of Medical Journal Editors (ICMJE) [Uniform Requirements for Manuscripts Submitted to Biomedical Journals](http://www.icmje.org/urm_main.html), which are excerpted below. The contributions of all authors must be described. Contributions that fall short of authorship should be mentioned in the Acknowledgments section of the paper.

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*Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship.*

**Availability of data and materials.** PLoS is committed to ensuring the availability of data and materials that underpin any articles published in PLoS journals. PLoS's ideal is to make all data relevant to a given article and all readily replaceable materials immediately available without restrictions (while not compromising confidentiality in the context of human-subject research).

We appreciate, however, that this ideal is not yet the norm in all fields. We are therefore collaborating with a number of subject-specific initiatives in order to develop relevant policies. **In the meantime, authors must comply with** [**current best practice in their discipline for the sharing of data through databases:**](http://www.plosbiology.org/static/guidelines.action#accessionnumbers)

**Software.** PLoS supports the development of open source software and believes that, for submissions in which software is the central part of the paper, adherence to appropriate open source standards will ensure that the submission conforms to (1) our requirements that methods be described in sufficient detail that another researcher can reproduce the experiments described, (2) our aim to promote openness in research, and (3) our intention that all work published in PLoS journals can be built upon by future researchers. Therefore, if new software or a new algorithm is central to a PLoS paper, the authors must confirm that the software conforms to the [Open Source Definition](http://www.opensource.org/docs/osd), have deposited the following three items in an open software archive, and included in the submission as Supporting Information:

* **The associated source code of the software described by the paper.** This should, as far as possible, follow accepted community standards and be licensed under a suitable license such as BSD, LGPL, or MIT (see<http://www.opensource.org/licenses/alphabetical> for a full list). Dependency on commercial software such as Mathematica and MATLAB does not preclude a paper from consideration, although complete open source solutions are preferred.
* **Documentation for running and installing the software.** For end-user applications, instructions for installing and using the software are prerequisite; for software libraries, instructions for using the application program interface are prerequisite.
* **A test dataset with associated control parameter settings.** Where feasible, results from standard test sets should be included. Where possible, test data should not have any dependencies — for example, a database dump.

Acceptable archives should provide a public repository of the described software. The code should be easy to locate and download without the requirement for creating user accounts, logging in or otherwise registering personal details. The repository must have been in existence for over five years or be hosting more than 1,000 projects. Examples of such archives are: [SourceForge](http://sourceforge.net/), [Bioinformatics.Org](http://www.bioinformatics.org/), [Open Bioinformatics Foundation (O|B|F)](http://www.open-bio.org/wiki/Main_Page), [Google Code](http://code.google.com/), [BerliOS Developer](http://developer.berlios.de/), [Savannah](http://savannah.gnu.org/), [GitHub](https://github.com/) and the [Codehaus](http://codehaus.org/). Authors should provide a direct link to the deposited software from within the paper.

Deposition with the journal and in an open source archive ensures that the original source associated with the paper is available as well as any enhancements made after the paper is published. An article can be considered for publication if it covers a well-established project that has been providing an open source code repository for an extended amount of time. A condition of acceptance is that the software can be run by reviewers accessing the public software and that the results presented in the paper are reproducible. The software need run on only one hardware-software platform in common use by the readership (including MATLAB), although it must run without dependencies on proprietary or otherwise unobtainable ancillary software. Articles describing software that requires access to databases and other resources whose persistence is not guaranteed (e.g. individual laboratory databases without funding support) will not be considered. In addition, the results described in the paper must be reproducible when peer reviewers, editors, or readers run the software on the deposited dataset and with the provided control parameters.

**When the software or algorithm is not central to the paper, we nevertheless encourage authors to make all relevant materials freely available.**

**CELL**

Instructions for Authors: <http://www.cell.com/authors>

No info on software or tool citation.

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**APA** (from <http://owl.english.purdue.edu/owl/resource/560/10/> citing 6th Ed, 2nd printing)

#### Computer Software/Downloaded Software

Do not cite standard office software (e.g. Word, Excel) or programming languages. Provide references only for specialized software.

Ludwig, T. (2002). PsychInquiry [computer software]. New York: Worth.

Software that is downloaded from a Web site should provide the software’s version and year when available.

Hayes, B., Tesar, B., & Zuraw, K. (2003). OTSoft: Optimality Theory Software (Version 2.1) [Software]. Available from http://www.linguistics.ucla.edu/people/hayes/otsoft/

**MLA**

Still need to research (nothing came up in internet search, but need to look at the book).

**Chicago Manual of Style** (http://www.chicagomanualofstyle.org/home.html)

No info on software citation

**ACM** <http://www.acm.org/publications/latex_style/>

No info on software citation

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**DATACITE** (http://www.datacite.org)

* Trying to make research datasets more available and visible. Work with researchers, data centers, and journal publishers to encourage citation of data and to make data easier to cite and link to.
* Currently using the Digital Object Identifier (DOI) to identify datasets. A data publisher can register her dataset with DataCite (via the DataCite metadata store) and receive a unique identifier (DOI) for that dataset that can then be used in citation.

<http://schema.datacite.org/meta/kernel-2.2/doc/DataCite-MetadataKernel_v2.2.pdfc>

2.2 Citation

In keeping with DataCite Metadata Schema V 2.2 / July 2011 7 this approach, the following is the recommended format for rendering a DataCite citation for human readers using the first five properties of the schema:

**Creator (PublicationYear): Title. Publisher. Identifier**

It may also be desirable to include information from two optional properties, Version and ResourceType (as appropriate). If so, the recommended form is as follows:

**Creator (PublicationYear): Title. Version. Publisher. ResourceType. Identifier**

For citation purposes, the Identifier may optionally appear both in its original format and in a linkable, http format, as it is practiced by the Organisation for Economic Co‐operation and Development (OECD), as shown below.

Regarding the PublicationYear, DataCite recommends, for resources that do not have a standard publication year value, to submit the date that would be preferred from a citation perspective. Here are several examples:

Irino, T; Tada, R (2009): Chemical and mineral compositions of sediments from ODP Site 127‐797. Geological Institute, University of Tokyo.doi:10.1594/PANGAEA.726855. http://dx.doi.org/10.1594/PANGAEA.726855

Geofon operator (2009): GEFON event gfz2009kciu (NW Balkan Region). GeoForschungsZentrum Potsdam (GFZ). doi:10.1594/GFG.GEOFON.gfz2009kciu. http://dx.doi.org/10.1594/GFZ.GEOFON.gfz2009kciu

Denhard, Michael (2009): dphase\_mpeps: MicroPEPS LAF‐Ensemble run by DWD for the MAP D‐PHASE project. World Data Center for Climate. doi: 10.1594/WDCC/dphase mpeps. http://dx.doi.org/10.1594/WDCC/dphase\_mpeps

**CHILDRENSMERCY.ORG**

http://www.childrensmercy.org/stats/weblog2006/CitingSoftware.aspx

First, when you first cite SPSS in the text, you put the name of the company and the location of the company in parentheses behind it (SPSS Inc., Chicago IL). This is similar to how you would document a vendor of laboratory supplies. Second, you can make a bibliographic reference to the software manual. There are several manuals, but a good choice would be

SPSS Inc. (1998). **SPSS Base 8.0 for Windows User's Guide**. SPSS Inc., Chicago IL.

if you are version 8.0 or 9.0. If you are using version 10.0 or 11.0, cite

SPSS Inc. (1999). **SPSS Base 10.0 for Windows User's Guide.** SPSS Inc., Chicago IL.

**Frequently Asked Questions about SPSS Inc**. (Accessed 1/20/2004).<http://www.spss.com/corpinfo/faqs.htm>

Also please note the comment in the APA Manual of Style:

*"Reference entries are not necessary for standard off-the-shelf software and programming languages, such as Microsoft Word, Excel, Java, Adobe, Photoshop, and even SAS and SPSS. In text, give the proper name of the software, along with the version number. Do provide reference entries for specialized software or computer software with limited distribution."* (page 280).

In a series of messages in the [MedStats](http://www.childrensmercy.org/stats/category/InterestingWebsites.aspx#MeStXx) discussion group (August 2006) about the citation of statistical software, one writer pointed out that a bibliographic citation in a consistent format is important because various sources track the frequency of citations in research.