# Writing log for this hot paper

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## Contents

# 1 Introduction

This template is in Org mode [Dominik, 2016]. Org-mode aims to be a used for organizing your life, managing knowledge, doing literate programming, and preparing manuscripts. It can be used to teach programming [Birkenkrahe, 2023]. Many people prefer to work in org-mode all day.

This template is similar to the writing log formatted for LaTeX. They share much of the same preamble. It is exported from org-mode through LaTeX to PDF. This file compiles by entering **C-c C-e l o** without using an init.el file (e.g., **emacs -Q logXXXX.org**), but you may have to export it twice to get all of the changes in the source file deployed in the PDF. You have to wait half a minute for the compiled document to appear. The compiling is faster in LaTeX and on Overleaf. This does not matter much because I mostly read and work with the org file when planning my writing session.

This template contains a table of contents, numbered outline, and an index that support navigating the document when it has been rendered into a PDF. The label and ref macros are part of LaTeX's hyperlinking system. Items in the table of contents and in the index are hyperlinked to sites in the body of the writing log. You can navigate to different sections of the document by clicking on the file outline in this left column.

The comments in the sections below can be commented out with a good text editor or by inserting a percent sign at the start of each line. Some of the explanatory text some may have value in the future. You can always comment out the lines that contain the explanatory text by inserting a percent sign at the start of each line.

# 2 Project initiation

## 2.1 Rationale for this article

## 2.2 Audience for the paper

## 2.3 Potential target journals for submission

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## 2.4 Related projects

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### 2.5 Draft Introduction

### 2.6 Potential results

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### 2.7 Potential discussion points

### 2.8 Prior discussion points

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2.
3.
4.
5.
6.
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### 2.9 Potential titles

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### 2.10 Potential Keywords

1. open science
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### 2.11 Potential Abstract

### 2.12 Abbreviations

> Acronyms/Abbreviations/Initialisms should be defined the first time they appear in each of three sections: the abstract; the main text; the first figure or table. When defined for the first time, the acronym/abbreviation/initialism should be added in parentheses after the written-out form.

Abbreviations are also listed at the end of the manuscript.

**abbrev** its expansion

**abbrev** its expansion

**abbrev** its expansion

**abbrev** its expansion

### 2.13 Potential collaborators: name; institution;e-mail

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### 2.14 Potential competitors: name; institution;e-mail

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### 2.15 Potential reviewers: name; institution; e-mail

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### 2.16 Draft cover letter

### 2.17 Acknowledgements

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### 2.18 Funding sources

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## 3 Data

This section catalogs the data to be used in the paper.

### 3.1 Inventory of data on hand

Table 1: Projects's stored data.

| Description | Location |
|---|---|
| SSRL images February 2024 | MooersHD11 |
| SSRL images August 2024 | MooersHD12 |

### 3.2 Inventory of project's required external software

Table 2: Projects's required external software.

| Description | Location |
|---|---|
| CCP4 | iMac2 |
| Phenix | iMac3 |

### 3.3 Inventory of project's software repositories

Table 3: Projects's software repositories.

| Description | Location |
|---|---|
| Repo1 | GitHub |
| Repo2 | Codeberg |

### 3.4 Relevant videos

Table 4: Videos related to project.

| Description | URL |
|---|---|

### 3.5 Relevant blogs

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### 3.6 Relevant literature sources

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### 3.7 Relevant collections of PDFs in Research Rabbit and the like

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### 3.8 Project's progress summary for annual grant report

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### 3.9 Project's progress summary for annual report to college

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## 4 Plans to support the writing project

- Budget
- Relation to specific aims of funded grants.
- Secure funding for the research and manuscript.
- Timeline to do the required experiments to test the hypothesis.
- Secure access to required national laboratory resources at experimental stations (i.e., general user proposal and beamtime requests).
- Secure access to computing resources.
- Gather the appropriate information from the literature.
- Recruit collaborators
- Recruit lab members to do the work.
- Individual career development for lab members, including yourself.
- Biosafety.
- Authentication of key biological and chemical resources.
- Rigorous statistical sampling and data analysis

- Data management including backups and archives.
- Data sharing.
- The NIH PEDP.
- Advertising plan: posters, talks, seminars, YouTube videos, social media posts.

### 4.1 Timeline for experiments

### 4.2 User proposals: national labs

### 4.3 User proposals: HPC

### 4.4 Literature retrieval

### 4.5 Funding

### 4.6 Recruitment of collaborators

### 4.7 Recruitment of workers

### 4.8 Career development plans

### 4.9 Biosafety

### 4.10 Authentication of key biological resources

### 4.11 Authentication of chemical resources

### 4.12 Statistical sampling and power analysis

### 4.13 Computer simulations

### 4.14 Data analysis plans

### 4.15 Data management plans

### 4.16 Data sharing plans

### 4.17 The NIH PEDP

## 5 Project management for timely completion

- Checklist for manuscript completion.
- Timeline and Milestones.
- Periodic assessments of the current state of the manuscript.
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### 5.1 Checklist for manuscript completion

☐ Central hypothesis identified.

☐ Introduction drafted to define scope.

☐ Results ordered by relevance to the central hypothesis.

☐ Results imagined as figures and tables.

☐ Results outlined to the subsection level.

☐ Results outlined to the paragraph level.

☐ Figures have been conceptualized.

☐ Figures have been drafted.

☐ Figure legends have been drafted.

☐ Tables have been conceptualized.

☐ Tables have been drafted.

☐ Table legends have been drafted.

☐ Paragraphs in the Results section drafted.

☐ Results concluding sentences checked.

☐ Discussion points identified.

☐ Prior publications checked for Discussion points.

☐ Discussion paragraphs drafted.

☐ Discussion concluding sentences checked.

☐ Discussion subsections check with the central hypothesis.

☐ Citations have been entered.

☐ Citations have been checked.

☐ Bibliographic information has been checked.

☐ Accuracy of Bibliographic information checked.

☐ Citations have entries in the annotated bibliography.

☐ Abstract drafted.

☐ Supplemental materials assembled.

☐ The first draft is finished.

☐ Round 1 of rewriting finished.

☐ Round 2 of rewriting finished.

☐ Ready for reverse outline.

☐ Round 3 of rewriting.

☐ Solicit review by co-authors.

☐ Internal polishing editing.

- ☐ Ready for intense review by a professional writer.
- ☐ Intensive review revisions have been incorporated.
- ☐ Penultimate draft ready for internal proofreader.
- ☐ Penultimate review revisions incorporated.
- ☐ Manuscript ready for submission.

### 5.2 Timeline with milestones

Table 5: Timeline with milestones.

| Milestone | Target date | Achievement date |
|---|---|---|
| milestone 1 | date | date |
| milestone 2 | date | date |
| milestone 3 | date | date |
| milestone 4 | date | date |
| milestone 5 | date | date |

### 5.3 Assessments of current state

#### 5.3.1 Date:

1. How far is the manuscript from being completed (in percent completion)?
2. List what keeps the manuscript from being submitted today.
3. List what is missing from the manuscript that could improve its impact.
4. What could be removed from the manuscript to streamline it?

## 6 Daily Log

### 6.1 2024 August 10

Accomplishments:

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### 6.2 Next action

### 6.3 To be done

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### 6.4 Word Count

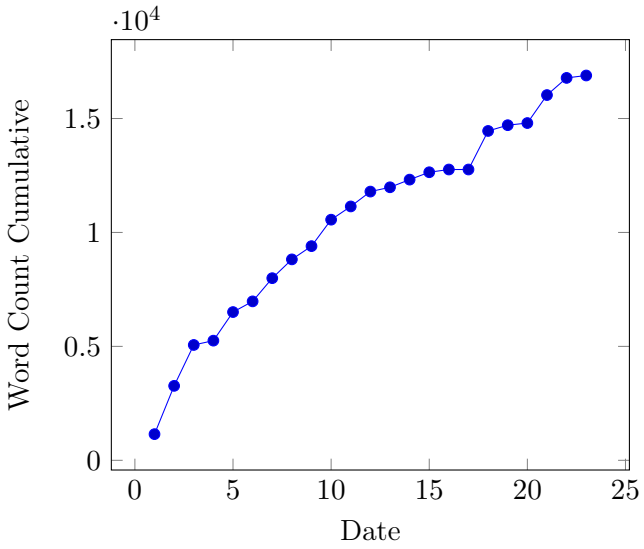


Figure 1: Cummulative word count.

### 6.5 Update Writing Progress Notebook

### 6.6 Update Zettelkästen in org-roam

### 6.7 Timeline or Benchmarks

## 7 Future additions and tangents

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### 7.1 Ideas to consider adding to the manuscript

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| Date | Day | Words |
|---|---|---|
| 20,210,916 | 1 | 1,148 |
| 20,210,917 | 2 | 3,267 |
| 20,210,919 | 3 | 5,062 |
| 20,210,920 | 4 | 5,251 |
| 20,210,921 | 5 | 6,506 |
| 20,210,922 | 6 | 6,975 |
| 20,210,923 | 7 | 7,993 |
| 20,210,924 | 8 | 8,818 |
| 20,210,925 | 9 | 9,399 |
| 20,210,926 | 10 | 10,560 |
| 20,210,927 | 11 | 11,141 |
| 20,210,928 | 12 | 11,793 |
| 20,210,929 | 13 | 11,982 |
| 20,210,930 | 14 | 12,318 |
| 20,211,001 | 15 | 12,642 |
| 20,211,002 | 16 | 12,762 |
| 20,211,003 | 17 | 12,762 |
| 20,210,004 | 18 | 14,454 |
| 20,211,005 | 19 | 14,707 |
| 20,211,107 | 20 | 14,801 |
| 20,220,809 | 21 | 16,029 |
| 20,220,811 | 22 | 16,782 |
| 20,220,812 | 23 | 16,888 |

Table 6: Date, day and wordcount.

#### 7.1.1 Introduction

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#### 7.1.2 Results

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#### 7.1.3 Discussion

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### 7.2 To be done someday

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### 7.3 Spin off writing projects

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## 8 Guidelines, checklists, protocols, helpful hints

### 8.1 Daily protocol

1. At start of work session, review the timeline 2.5, recent daily entries 2.2, next action item 2.6, and to-do list 2.7.
2. Write the goal(s) for the current writing session as a means of engaging mentally in the work. This prose could be retained or deleted at the end of the work session.
3. At the end of the work session, move finished items to an achievement list for the day.

4. Move the unfinished items to the to-do list 2.7.
5. Identify the next task or action 2.6.
6. Update the wordcount.txt file, if you wrote anything 6.6.
7. Update the project Sheet in the Writing Progress Workbook 2.3.
8. Update your personal knowledge base 2.4.

## 8.2 Tips for using Overleaf

1. Chrome has the TextArea extension that is needed to run Grammarly in Overleaf.
2. Use the shortcuts (new commands defined in the preamble) to save time typing.
3. Where shortcuts are not possible, use templates.
4. View Overleaf project with Chrome to be able to run Grammarly via the Chrome Grammarly extension.
5. code Snippets can be mapped to voice commands in Voice In Plus.

## 8.3 Protocol for running Grammarly in Overleaf

You must install Grammarly and Textarea extensions for Chrome. With your project open in Overleaf, open the textarea icon in the upper right of your browser and check the checkbox. This will convert the PDF viewport into RichText. Hit the Grammarly icon. Grammarly will check the text in the RichText viewport. Corrections that you make in the RichText viewport are applied to your tex file in the left viewport. Note that the preamble of the document will cause the text to be spread out. You may have to scroll down a ways to see the document environment.

## 8.4 Guidelines for debugging the annotated bibliography

For a template annotated bibliography, see `https://github.com/MooersLab/annotatedBibliography`.

1. Escape with a forward slash the following: &, _, %, and #.
2. Title case the journal titles.
3. Replace unicode characters with LaTeX code: e.g., replace Å with Å. Not all LaTeX document classes are compatible with unicode.
4. The primes have to be replaced with '.
5. The vertical red rectangles with a white dot in the middle should be replaced with a whitespace.
6. There are two styles in the bibtex world: bibtex and biblatex. We are using bibtex. It is simpler. It has fewer fields.
7. Use Google Scholar bibtex over Medline or PubMed biblatex.
8. Often the error is in the bibitem entry above the one indicated in the error messages.
9. All interior braces must by followed by a comma, including the last one.
10. When stumped, replace the entry with a fresh one from Google Scholar.

## 8.5 Graphical Abstract

The following is copied from the Crystal Journal's author guidelines.

> A graphical abstract (GA) is an image that appears alongside the text abstract in the Table of Contents. In addition to summarizing the content, it should represent the topic of the article in an interesting way. The GA should be a high-quality illustration or diagram in any of the following formats: PNG, JPEG, EPS, SVG, PSD or AI. Written text in a GA should be clear and easy to read, using one of the following fonts: Times, Arial, Courier, Helvetica, Ubuntu or Calibri. The minimum size required for the GA is 560 × 1100 pixels (height × width). When submitting larger images, please, keep to the same ratio.

I usually make the mistake of treating the graphical abstract as an afterthought. Then there is no time to make one during submission of the manuscript. This can lead to delays or to the journal converting one of your sub-figures into a graphical abstract. A good example of a graphical abstract is found here.

## 8.6 Guidelines for benchmarks

## 8.7 Guidelines for using Writing Progress Notebook

The writing progress notebook enables the tracking of progress on a project basis [1]. The Notebook automatically updates sums of words written and minutes spent across all projects on a given day. It only takes a few seconds to enter the number of words written and the time spent for a specific project on that project's Google Sheet. If you have Voice In plus activated, say the words "open sheet 37" to have the worksheet for project 37 opened in the web browser. If not, click on this direct link to the Google Sheet in the compiled PDF of this writing log [2].

## 8.8 Guidelines for using a personal knowledge base

If you maintain a knowledge base like a Zettelkästen in org-roam or Obsidian or Notion, you might consider adding literature notes and permanent notes at the end of a work session [3] , [4]. The name of the index for this project is `XXXXXXXXX`. Enter `Control-c n f` to find this project note. This knowledge base can store information that you may want to use eventually in the paper.

These notes that you may add might be in the form of what are called **permanent notes** that include new insights or plans for the work. These thoughts are not directly linked or derived from any particular reference in the literature. Another kind of note is known as a **citation note** or **literature note** is derived from a specific reference. This kind of note will contain the BibTeX cite key.

Although such notes can be stored in an annotated bibliography (`https://github.com/MooersLab/annotatedBibliogr`
I seem less likely to utilize this information while working on a manuscript because the annotated bibliographies are in a different document. Because it is out of sight, the annotated bibliography is also out of mind.

The advantage of keeping these bits of knowledge inside the writing log is that you can link the entries made in the daily log section to these bits of knowledge by using the label and ref macros of LaTeX. You can also set up label and ref pairs between to-do items and the bits of knowledge. Some of these notes may

[1] `https://github.com/MooersLab/writing-progress-2024-25`
[2] <insert link for specific sheet>
[3] `https://wiki2.org/en/Zettelkasten`
[4] `https://wiki2.org/en/Comparison_of_note-taking_software`

refer to a particular reference, so you can include the cite key with these notes if the reference has been included in the BibTeX library file sourced at the bottom of this file.

I usually source the BibTeX library file that I am using in the annotated bibliography for a particular project. Keeping these items together in one document will improve the odds that you act upon the collected information, reducing the mental bandwidth you have to commit to managing this writing log.

Another approach I use sometimes is to include such information on lines that have been commented out in the manuscript's tex document near where I want to utilize that information. I must admit that this approach can become a little unwieldy if the comments span many lines.

If you use the Pomodoro method, you would probably want to commit the last one or two poms of a work session on a writing project to update your knowledge base. If you have been lagging on doing such updates, you may want to commit four to six poms to this kind of work; you might have to do this over multiple days if you have fallen behind.

## 8.9 Writer's Creed

A writer does the following:

- Schedules daily writing time on workdays; takes a relaxed approach on weekends.
- Shows up and writes during the scheduled writing time.
- Stands up and walks around every 25 minutes for no more than 5 minutes (i.e., uses the Pomodoro technique).
- Limits generative writing to 3-5 hours daily; spends the rest of the day on supportive tasks and other duties.
- Overcomes writer's block by rewriting the last paragraph or reverse outlining a section.
- Keeps near a list of tricks for overcoming writer's block.
- Manages their energy by doing generative writing first, rewriting second, and supportive tasks later in the day.
- Jumps into generative writing; does not wait to be inspired.
- Does generative writing when half-awake early in the day and editing and rewriting when fully alert, generally mid to late morning.
- Masters their writing tools without letting the tools master them.
- Writes without distractions (no YouTube videos, TV, radio, etc.; playing classical music is okay sometimes).
- Tracks the time spent and words written by project ID.
- Takes credit for time spent reading material related to the project, especially if finished by making an entry in an annotated bibliography.
- Uses a separate writing log for each writing project.
- Makes writing social when it is mutually beneficial.
- Reads and writes about writing at least once a fortnight.

- Keeps up on weasel words, wordy phrases, cliché, and other junk English; reviews this list quarterly to avoid their use.
- If a scientist, writes with precision, clarity, and conciseness. The order is in descending importance. Has memorized this list.
- Uses computerized writing tools responsibly, not blindly: Takes full responsibility for the final draft.
- Documents in writing log any use of AI to generate or paraphrase passages.
- Uses dictation software for some generative writing.
- Uses software tools like **Grammarly**, the **LanguageTool**, and the **Hemingway.app** to stimulate improvements in their writing.
- Knows enough about good writing to accept only useful suggestions.
- Does not blindly accept noun clusters, English contractions, and weasel words suggested by AI software.
- Uses copilot when exhausted to complete sentences.
- Uses the paraphrasing tool of some chatbots (e.g. TexGPT) cautiously and only to generate intermediate drafts.
- Reviews this list periodically.

Premises of the creed:

- Writing is any activity that advances a writing project. Most of the time spent on these writing activities does not involve generative writing.
- Generative writing is the most valuable activity: All other activities descend from it.
- Generative writing and editing use different parts of the brain, so they should be done at separate times.
- Generative writing is best done when half awake because your internal editor is not fully on so new ideas are more likely to emerge.
- Generative writing be done by dictation while commuting if planned before the commute.
- Editing is best done when fully awake because your internal editor will be activated. (Be careful; late-night editing can keep you awake later than intended and interfere with your sleep pattern.)
- Most of the time spent on actual **writing** involves rewriting.
- Planning is an important (underemphasized) component of writing.
- Writing includes any activity that advances a writing project.
- The word count does not capture most writing-related activities. Hence, the time spent on these activities must be tracked to document these efforts.
- Time tracking is an essential component of time management. It is hard to manage what you do not measure. **Writing involves a lot of time management!!**
- 90 minutes of generative writing per day on one project is the optimal length of time due to our [ultradian cycles](`https://www.youtube.com/watch?v=ezT8kGzYOng`). Thank you to my brother,

Randall, for alerting me to this. Longer stretches of writing on one project are known as **binge writing**, which always leads to diminishing returns.

- Writing includes reading the papers that you cite and those that you do not wind up citing. This reading activity can rejuvenate your momentum and inspire new ideas. It is best done in the evening so your subconscious can work overnight with the new insights. **Writing involves feeding your subconscious: Feed our head!**. Reading is grossly underemphasized in writing books. Time should be scheduled for it else it is less likely to be done.
- Writing includes mundane tasks like managing bibliographic libraries and making figures; these are good afternoon activities.
- Writing includes data analysis.

# 9 Backmatter

# References

[Birkenkrahe, 2023] Birkenkrahe, M. (2023). Teaching Data Science with Literate Programming Tools. Digital *3*, 232–250.

[Dominik, 2016] Dominik, C. (2016). The Org Mode 9 Reference Manual: Organize your life with GNU Emacs. 9.0 edition, Samurai Media Limited.

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