

CSE 669, Scholarship Skills, Week 9b

Scholarship Skills

Week 9b Writing Process

Week 9b

David Maier

1

Scholarship Skills

Audience

To whom is the paper targeted?

- General public
- Scientifically literate reader
- Computer scientist
- Someone in your area
- Someone with the same research specialty

Ask yourself what they will know.

- definitions, notation, previous results
- experimental or analytical methods
- mathematical sophistication
- knowledge of existing systems

You won't know the answer on a multi-disciplinary paper

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Audience 2

Note that why your results are important will vary by audience.

May be enough that you have a solution to the embedded multivalued dependency implication problem for a group of data dependency theorists
But most audiences will say “So what?”

You can’t assume your reader has seen every previous paper of yours.

Audience will determine what aspect of your work to emphasize.

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Plot

I think the notion of plot is as valid for technical writing as for fiction

Setting the stage
Protagonists and Antagonists
Conflict
Resolution
Denouement

It will help to determine what to include and when

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Example Plot

From a grant proposal

- There's a lot of network-accessible data
- too much to browse
- can't do structural query because of lack of regular form
- not feasible to put it under one schema

- solution: add incremental, structural info on top of information sources: structured map
- advantages

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Special Consideration: Preconceived Notions

Take special care if you go against conventional wisdom.

Determine source of these notions

- Particular paper
- Anecdotal evidence
- Failure of some project

Don't hide that your conclusions contradict commonly held beliefs.

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Preconceived Notions 2

Figure out the point of divergence between your results and the common belief

- Misinterpretation or over-application
- Confusion
- Change

Continuity

You must keep a model in your head of what the reader knows.

Try not to present information far from where it is needed.

Try to build a scaffolding for the reader on which to attach coming information.

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Organization

Need to organize your work in general to organize your writing.

15% of work time on organization and planning isn't excessive.

Should keep at least a calendar and a to-do list.

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Scheduling

Whatever your planning period, make sure you schedule important tasks so you'll actually get to them.

- estimate available time and task times at beginning of day—decide then
- don't schedule 100% of your time

Avoid fragmenting your time.

- don't read email or texts too often
- jot down items to attend to later,

Better to write 1 hour a day for 5-6 days than 8 hours one day per week.

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Planning Your Writing Tasks

For anything over a couple pages, useful to figure out what tasks are involved.

Gives you a better estimate of time required, what's missing

Help determine dependencies, what needs lead time

Help to group related tasks, avoid

When writing for a deadline, you have to schedule by task, not by time slice.

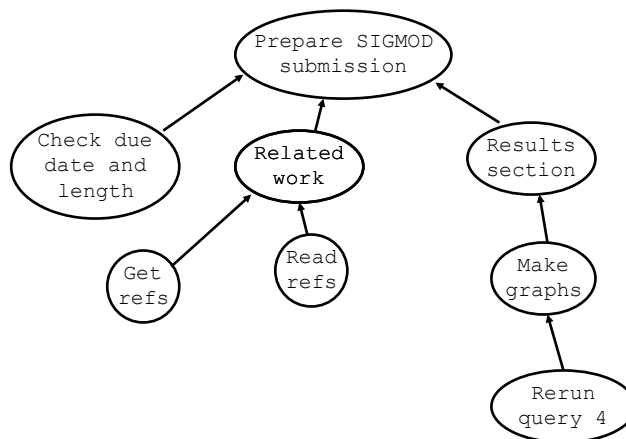
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Task Decomposition and Dependencies



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Drafts I Go Through

- 1. Notes—points to include, including related papers
- 0. Outline, plot
 - for a short piece, might not be totally ordered
 - more important for a longer piece, to manage increased dependencies
- 1. Longhand draft
- 1.5. Typed-in first draft
- 2. Read, correct, format, check details, add references.
 - try to maintain a model of reader's mental state

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Drafts 2

Get opinion of another reader at this point.

- 3. Final draft—includes subsequent proofreading and correction

(Can pipeline the process)

Why first draft in longhand?

Paper is user-friendly, don't get distracted by software

Cross-outs are easy to restore (don't erase)

Can revise faster

Get almost an extra draft for free while typing

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What's Handy When I Write

A. Outline, notes on references

B. Jot sheet

spare ideas, items to check

C. Current page

D. Previous parts of draft

Books

Dictionary

Thesaurus

- find a word with a better connotation
- finding an "unused" term

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Style Sheet

For later drafts, on a long piece, I will keep a style sheet for consistency

- spelling
- word choice
- abbreviations
- notational conventions
- designated variables
- formatting

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How to Get Started?

(Moody) Collect major formulas, results
Talk to someone else, have him or her take
notes (or talk to yourself)
Recount the course of the research

Joint outlining: all authors in a room
Start in the middle of the paper possibly
Often easy to write how something works.

Figure out some examples—can help with ordering

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What If You Get Blocked?

Write telegraphically
Draw some pictures
Write (and flag) material you know is
wrong
Write arbitrary sentences you want to
include
Make yourself write for 5 minutes (and
let yourself quit)
might get started
good to do early on—will quickly figure out
things you need to assemble

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My Favorite Trick

To avoid slow start-up after you take
a break, when you leave off, stop
in the middle of
in the middle of
in the middle of
in the middle of

and jot down the next point or two to
make.

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