Some thoughts on Writing for Journals, Conferences, Books, Theses etc

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Objectives

- Disseminate knowledge (not just information) that you have generated
- Degree of originality and depth required depends on medium selected for dissemination and expected readership or audience- match them well!
- Bring recognition to you, your institution, employer etc depending on quality of research and of your presentation- written and oral- do your best

What to write/present

- Depending on medium chosen, follow instructions and guidelines of the journal/conference etc closely
- Write clearly, concisely and correctly! (3
 C's of presentation requirements!)
- Present only what is new, innovative and true- do not exaggerate claims and do not claim others' work as own
- Make it interesting!

What to write?

- Write only if it is worthwhile publicizing- should be a substantial contribution to knowledge
- Note knowledge is dynamic- be aware of state-of-the-art and acknowledge prior work ethically; research literature regularly
- Write as if it were a detective story-build up interest in introduction and follow a logical sequence
- Test- would you read the paper if someone else did the work and wrote it?

What to write?

- Be ethical at all times- even in writing as in conducting research being reported
- Ethics- origin in Greek word ethos- meaning personal character
- Some commandments :1. Thou shalt not plagiarize or claim credit for others' work 2. Thou shalt not misreport or invent results 3. Thou shalt not present wrong data, 4. Thou shalt not conceal sources or destroy data
- Ref. Booth et al The Craft of Research (2003)

Choose medium wisely

- Do not choose journal by its cover or ISI impact factor exclusively- may go to wrong readership (even if it slips through the review process)
- Only final, archival work which will withstand test of time for some time is appropriate for journals- work in progress is typically good for conferences
- Be aware of target readership/audience and their needs, and write at right level- keep reader's interest in mind- not just your own!

Some notes about the content

- Quality and quantity depend on level of work and readership
- Disseminate only correct, reproducible, reliable results in usable form-test data statistically and quantifiable form
- Check data for precision, uncertainty, reproducibility etc and present it in right format e.g. tables vs graphs etc. No need to present ALL data you have obtained/generated!
- Be logical and ensure smooth flow of thoughtdon't "jump" all over the map!

Analytical/Computational results

- Give sufficient details to reproduce work if reader wishes to.
- Validate model and results. State all implicit and explicit assumptions clearly and justify them
- Point out weaknesses along with merits- no model is perfect, by definition!
- Numerical results must be tested carefully to ensure correctness. Compare and contrast with earlier work.
- State explicitly your own contribution

Presentation of results

- Dimensional vs non-dimensional form- choose wisely and justify
- Give equations you actually solved- not in a different format- always give BCs and ICs as a well-posed problem
- Give all details that have bearing on accuracy of numerical solutions
- Try to generalize results where possible- do not leave it to readers (who will not do it anyway)
- Consider alternate ways of presenting data-use the best one

On writing itself...

- Make sure spelling, grammar, syntax and style are all correct
- Sloppiness in writing can be (mis-interpreted as sloppiness in research itself! Referees and readers will not consider such work favorably.
- Length of text must be consistent with content to be conveyed-most journals impose restrictions on page count.
- Draw right and useful conclusions based only on what is presented!

Summary/ Abstract

- Abstract or Summary should state exactly and concisely the key objectives, methodology and in some instances key conclusion of work.
- Abstract must attract attention of potential reader
- Include Notation(with units), References in standard formats
- Acknowledge help of persons, agencies etc

What about co-authorship?

- Be careful in choosing order and number
- Main researcher is the first author (or Senior author, by convention)-primarily responsible for validity of content
- Others -typically in order of contributions actually made to reported work- often hard to decide
- Too many authors may spoil the "broth"
- Ethically, only those who have actually contributed to the research effort (not with funds or giving space etc) and writing itself should be listed.
- Differentiate between co-authorship and acknowledgements.

Review process

- All archival journals are peer-reviewed- some poor quality papers and even wrong information may slip through these "filters"- be critical in reading printed words.
- Be ethical, thorough and critical in assessing and reviewing prior work(not just listing it)
- Be aware of latest developments in your area and also have good foundation in related areas, fundamentals of your discipline
- Avoid repeating prior work. Try to be innovative and creative- the main purpose of research.
- Do not be risk-averse. Do not look for easy solutions or ways to circumvent problems!

Pitfalls to avoid – a must!

- Plagiarism- intentional or not, is committed when one uses others' writing as own —without giving due credit
- Even your own published writing is subject to copyright laws!
- Do not plagiarise words as well as ideas!
- Inadvertent plagiarisation can occur when writer tries to summarize or paraphrase without quoting source!
- Quote when you need to appeal to authority and paraphrase when conclusions are more important and you can possibly say it more succinctly!
- Read Booth, Colomb and Williams (Univ.Chicago Press, 2003) for more in-depth discussion of topic.

Closure

- This is a very cursory summary of some thoughts on the publication process for new graduate students/novice writers
- Possible to elaborate on specific topics listed to be done in a later meeting
- Happy writing!
- Many useful books available for novices as well as seasoned writers. Read them!
- ANY QUESTIONS?