Publishing your work

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What to publish

• Good ideas, better ideas, and best ideas
  – Ask yourself why other people might want to read your paper
  – Have a good taste! Have a judgment!
  – It is “easy” to publish, but impossible to unpublish

• Not a laundry list – it needs to be a coherent story, even if it has lots of mathematical formulas, equations, inequalities, etc.

• New perspectives, connections (with other areas), important applications.
How to get a good idea

• Foster your research taste – have a judgment
• Master the essence, get into details when reading important papers.
  – Understand a few key papers in a substantial way
• Aim at important and new challenging problems
  – Follow the trend (e.g., the bootstrap trend, the LASSO trend, the MCMC trend, the bioinformatics trend)
  – Follow the data/technology (e.g., bioinformatics, single-molecule analysis, neural sciences, computer vision, internet, etc.)
  – Always try to think big (big pictures, big problems, and …)
  – Follow your heart and do what makes you happy
• Is the idea new, general, effective, surprising, and unconventional? Does it have a broader impact?
  – E.g., bootstrap, EM algorithm, data augmentation, sliced inverse regression, LASSO, LARS, FDR controls
How to start writing

• Everyone has a mental block (i.e., you are not that special), but writing is too important to skip

• Start with essentials: describing your ideas, trying to convince and attract people
  • Don’t start by aiming at a perfect introduction section
  • Don’t be bogged down by tedious details

• You need passion to write well!! Write it when you are still excited about it

• Try to read as a third-person and see whether the writing is self-sufficient

• Survey what other people have done

• Discuss importance and limitations

• Give a good title and write a good abstract
Trivia about writing

• Learn more about writing by paying attentions to how others write
• Have a book about writing (such as Chicago Styles, “Scientific Writings” etc.)
• Small things can be annoying (e.g., “the”, “a”, etc.)
• If you are not Shakespeare Jr., try not to be inventive at writing
• Do not “translate” phrases in your native language to English verbatim.
• Avoid redundancy and repeats;
• Discover and remove “content-less” sentences and paragraphs
• Avoid self-boasting! Avoid using emotive words! State in a “matter-of-fact” fashion.
When to stop and send the paper out

• Have a complete story
  – The main method (motivations and main challenges). Clear statement about innovations and contributions?
  – Theoretical properties (sometimes incomplete), empirical performances, and its applications;
  – Other related approaches, literature review, and performance comparisons.
  – Good enough example(s)?
  – Broader impacts, broader connections, and possible extensions

• Write things as clearly as possible (see later)

• Read it multiple times, from a third-person’s point of view, until you do not have much to change
Where to send

• Choose top journals
  – If you are really confident about your ideas and approaches, always go with the top ones that are appropriate for the type of articles
  – Broader impact, not necessarily harder
• Find journals publishing “similar” articles
• Consider the audience of the journal
• Reality check (idea new enough? Proof rigorous enough? Explanations clear enough? Etc.)
When referees’ reports are received

• Can you fight rejections?
  – Yes, but evaluate your positions carefully before you proceed

• Should you fight the rejection?
  – Gross errors and obvious biases by the referees?
  – Utterly lack of or mis-understanding of the main idea from the review team?
  – Obvious conflict of interest?
  – Are you angry (feeling being treated unfairly)?

• No use to fight “judgmental rejections”
When referees’ reports are received

• Do not take reviewers’ criticisms personally!
  – Although sometimes they sound harsh
  – Try to see if there are some good points –really try
  – Try to see if there are major flaws in reviewers’ comments and the AE’s comments
    • Even if they have flaws, it can still be your fault that you did not explain things clearly and succinctly.

  – **Decide whether to continue**

• Write the rebuttal letter
  – You need to be passionate in order to write good stuffs
  – Let it sit for a week, and then revise!
Revising papers

• Referee’s reports are often VERY helpful, even those “nasty” ones!
  – Try to think/speculate why the reviewers got those impressions (or mis-understanding) and made those comments
  – Do not be defensive, but DO defend your position if you are sure of it and you think that the referees misunderstood. The question is HOW?
    • Try your best to “align” with the referees’ positions
    • Start your argument by agreeing first!
Revising (continued)

• Do not just brush away a seemingly “stupid” comment – try to understand why certain confusions occur. Take everything positively, sometimes with a witty twist

• Pay attention to details
  – Are all questions addressed or responded?
  – Any gross errors (e.g., typos, undefined terms, misleading sentences, etc)
  – Are all sentences meaningful and useful?

• No need to be a perfectionism – there is always more to do, but you need to stop somewhere.
Finishing touches

• Write a good response letter – explain things as well as you can (there is no page limit!)
• Read the introduction and the discussion sections carefully, making them as attractive as possible
• Pay attention to examples (easy, simple, yet insightful examples are most effective)
• Make sure that the overall flow is smooth
Writing grants vs writing papers

• Focus on writing papers first!
  – You need to establish a reputation, especially for NSF
  – You need to generate some new ideas

• Getting a grant would be much easier given a few solid publications

• Writing grants does help sharpen your thinking and writing