

# Publication Etiquette and Ethics: Things You Should Know Before Submitting Your Next paper

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# Why This Topic?

- Established practices often govern social behavior in cultures and communities: “etiquette”
  - Can you think of some examples?
- When visiting a new location, it is a good idea to know out about established etiquette
  - When in Rome, do as the Romans do
- Ethics – integral to progress in science, should be inherent, review and emphasis worthwhile
  - Science is international and common values are shared universally



# Sharing Your Results in a Paper

- Excitement about work and results is natural
- Do remember that you're stepping into a new culture
- That's where this presentation/discussion comes in:
  - Overview of etiquette and ethics in technical publishing



# Outline

- Why this topic?
- Our backgrounds
- Overview of the peer-review and publications process
- Etiquette and ethics in scientific publishing
  - Frequently encountered issues
- Question and answer
- Summary

# Sheila Hemami: Background



- Chair ECE, Northeastern University, Boston MA
  - Author of over 34 journal and 98 conference papers
- Vice President of IEEE Publications for IEEE
- Former Editor-in-Chief for IEEE Trans. Multimedia
- Experience on editorial boards, conference technical committees, ...



# Gaurav Sharma: Background

- Professor, University of Rochester, Rochester, NY
  - Author of over 50 journal and 115 conference papers
- Editor-in-Chief for Journal of Electronic Imaging
  - Published jointly by SPIE and IS&T
- Member of IEEE Publications Services and Products Board
- Experience on editorial boards, conference technical committees, ...

# Where Do We Come from?





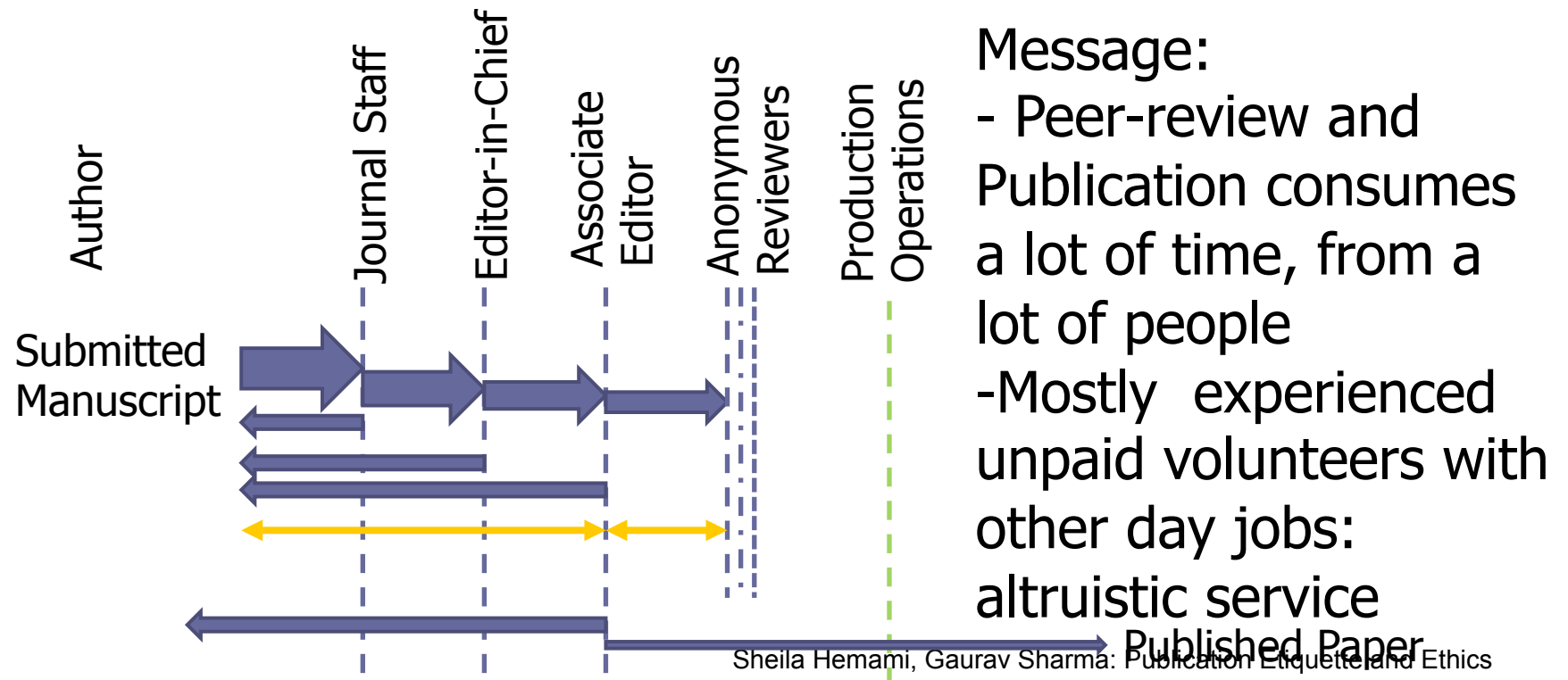
# Why does one publish?

- Share discoveries and knowledge
- Gain prestige and recognition
- Required for program/degree
- Assessment in some careers based on publications
- Secondary benefits
  - Writing promotes better understanding
    - Logical organization requires clarity of thought
  - Often spurs new ideas
    - Both by authors and others



# The Peer Review and Publication Process

- What happens after you click “submit” (my paper): typical journal workflow





# Etiquette and Ethics in Publishing: Guiding Principles

- Value the time of others
  - Editorial board, reviewers, readers
  - Also your own!
- Maintain integrity of the publication process
  - Scientific integrity and reproducibility
  - Authorship
- Understand and avoid unacceptable conduct
  - Plagiarism, duplicate submission, disclosure

# Preparing Your Manuscript

- You can and should start writing before you have all the work done and everything figured out
  - But should not submit until you have done your part
- Check for logical organization, clarity, and brevity (see presentations on technical writing)
- Also check for
  - Conformance of style with the journal you are submitting to (citations, sections, formatting, etc)
  - Language and grammar
- Details matter: good work presented poorly is often misunderstood and rated poorly by reviewers
- The review process is not intended to edit the manuscript!

# Preparing your Manuscript: The Abstract

- Abstract should tell a reader in a nutshell
  - what the paper is about,
  - why is it significant,
  - what is the main novel idea/methodology that is introduced,
  - what are the main findings, conclusions
- It is a tall order to do all of these in a typical 150-250 word abstract!
  - Guideline: In early phase of writing, should plan to spend half as much time on writing, reviewing, and editing abstract as on the rest of the manuscript
- Several of the decisions in the peer-review pipeline are made based largely on the abstract (and cover letter)

# Selecting Where to Publish Your Work: Avoiding the “Not-in-Scope” Syndrome

- Questions to ask:
  - Who is your target audience? Select a journal that they read: where has similar work been published?
  - Do you recognize the editor-in-chief/editorial board as being leaders in your field?
  - Is the journal timely? What is submission-to-publication time?
- Question not to ask:
  - What is the impact factor?



# Maintaining Scientific Integrity

- Your manuscript should reflect what you actually did and observed
  - Heuristics/hacks should also be documented
  - Do not fabricate results or data
  - Results should be reproducible
  - Selectively reporting results is deceitful
- Fraud is eventually uncovered
  - Several high profile cases: human cloning, ...



# Case Study Group I

Selection of Data, Discovering an Error, Breach of Trust,  
Fabrication

US National Academies Press: “On Being A Scientist”  
[http://www.nap.edu/openbook.php?record\\_id=12192](http://www.nap.edu/openbook.php?record_id=12192)

# Plagiarism

- Plagiarism: Use of another person's words or ideas without appropriate attribution
  - Always attribute sources – even if these are informal (oral/email communication, website, ...)
    - There are no exceptions to this rule
  - Do not copy other author's words
    - If required, rephrase and describe in your own words
    - When quoting use no more than one/two sentences verbatim from other authors' paper with very explicit citation
  - Everything you write is presumed to be your own words unless you quote and cite
- Some examples ....





# Reuse of Published Materials

- You must cite and acknowledge any published materials that you make re-use of
  - Examples: Diagrams/figures from an existing paper
    - Extracted and re-used => must get permission from author/publisher (copyright owner) and cite and acknowledge
    - Redrawn with modifications => should cite and indicated “adapted from” or “based on”
- This includes your own prior published work!



# Case Study Group II

Is it Plagiarism?, Race to Publish

US National Academies Press: “On Being A Scientist”  
[http://www.nap.edu/openbook.php?record\\_id=12192](http://www.nap.edu/openbook.php?record_id=12192)

# Authorship and Acknowledgment

- Authorship for an article should be limited to individuals who have
  - substantively contributed to the work, AND
  - reviewed the manuscript and agree with the contents and to being listed as an author
- **IMPORTANT:** All authors share responsibility for any ethics violations!
- People you have consulted with and who have offered advice, tools, etc but not directly participated can be acknowledged
  - Good idea to let folks know you are acknowledging them
- It is a terrible idea and ethically wrong to include a friend, colleague, or family member that has not contributed to the work as a “co-author”



# Case Study Group III

Who gets credit?

US National Academies Press: “On Being A Scientist”  
[http://www.nap.edu/openbook.php?record\\_id=12192](http://www.nap.edu/openbook.php?record_id=12192)

# Duplicate Submissions

- It is not acceptable to submit substantially the same manuscript for review in multiple journals at the same time
- Why?
  - Terribly wasteful of editorial board and reviewer resources
  - The practice is completely taboo in the world of scientific publishing
  - Copyright issues
- Faux counter-arguments
  - I thought it would be faster if I tried two places at the same time...
  - This journal was taking too much time therefore I submitted to another one to see if they would be quicker

# Disclosure and Double Publication

- As an author, it is your ethical responsibility to disclose all relevant prior work that you are aware of
  - What is relevant is a matter of judgment, however, relative relevance is easy to assess
- In particular, you must disclose your closely related prior work of yours on the topic
  - Cannot reasonably claim ignorance of these!
- Publishing substantially the same work in two journal papers is unacceptable and often treated as an ethical violation
  - Also potential copyright violation depending on nature of publication
  - Conference to journal overlap, practice varied by discipline
  - Some variations between communities: disclosure is important here



# Case Study Group IV

## Publication Practices

US National Academies Press: “On Being A Scientist”

[http://www.nap.edu/openbook.php?record\\_id=12192](http://www.nap.edu/openbook.php?record_id=12192)



# Publication Metrics

- Article and journal citation counts are just one metric of the impact and significance of the work
  - Wide variance of number of citations based on area
  - Bias toward sensationalism and marketing, rather than scientific merit
  - Some research results subsequently found to be fraudulent/erroneous are often cited frequently in follow on work
  - Computed metrics use time windows and useful half-life differs in different fields
  - Metrics are subject to gaming by unethical players



# Bibliometric Manipulation

- "Bibliometric manipulation" is defined as actions designed to influence either journal bibliometric measures or personal citation counts
- IEEE now considers "bibliometric manipulation" as misconduct
- Cite your own papers when they are relevant, not to increase your own citation counts
- When you review papers, make sure you review the bibliography for the same reasons!

# Impact Factor (IF)

- Designed to help librarians determine which journals are being used and to aid in making subscription decisions
- Aggregate measure of all citations (not just technical) to all articles published in the journal in the last 2 years. **It is an average.**
  - Does not provide information on citations for a single paper was cited
- High impact factor does not mean high selectivity
  - The correlation between IF and rejection ratio is less than 0.2
- Don't use journal IF as proxy for the quality of a single paper.
  - Don't use IF to select a journal in which to publish
- Citation counts are limited in their utility in assessing the importance and significance of work

# Maintaining Scientific Integrity

- Conflicts of interest should be minimized and clearly declared
  - Much more common for medical research
  - Can also occur with engineering and scientific research
- Corresponding author is responsible for checking with all others before submitting manuscript
  - Several journals have explicit statements that all authors must read and agree with
  - Send to everyone and request explicit acknowledgment



# Participate in Your Community

- Volunteer for reviews
  - Initial “supervised” mentorship phase with advisor
  - Subsequently as an independent reviewer
- Set up an “honor code” for your class/batch/workgroup
- Resist inappropriate peer pressure
  - Conformance should be a by-product of like-mindedness and not of weakness!
- Any ethical misconduct reflects poorly not only on you but also your co-authors and indirectly on your institution



# Comments

- Broad ethics and etiquette practices are common between different disciplines
- Details can be quite different
  - Particularly for etiquette, just as in social settings!
- When in doubt:
  - Better to err on the side of politeness
  - Ask someone familiar with the community

# Summary

- Scientific publishing communities have established etiquette and ethics expectations for published work
  - It is important that you familiarize yourself with these prior to submission of a manuscript
- Several of the ethics guidelines should be common sense
  - Common sense is not really that common, though!
- Etiquette comes from established practices and can vary between communities
- As an author and scientist you carry your reputation as well as that of your co-authors and your institution

# Commentary

- Dynamics of publishing are constantly evolving
- Traditionally, researchers were relatively small community
  - Ethics and etiquette practices were passed on from advisor to student through personal contact
- Distributed work and collaboration environments enable joint work without personal contact
  - Increase productivity
  - Do not eliminate the need for understanding acceptable etiquette

# Additional Resources: Pub. Ethics

- IEEE Author Rights and Responsibilities

[http://www.ieee.org/publications\\_standards/publications/rights/authorrightsresponsibilities.html](http://www.ieee.org/publications_standards/publications/rights/authorrightsresponsibilities.html)

<http://tinyurl.com/o7ene37>

- SPIE Code of Ethics

- See section “Guidelines for Ethical Publishing”

<http://spie.org/Documents/ConferencesExhibitions/SPIE-Code-of-Ethics.pdf>

<http://tinyurl.com/p6tf6du>

- Vancouver Protocol

[http://www.research.mq.edu.au/about/research@macquarie/policies\\_procedures\\_and\\_conduct/documents/Vancouver.pdf](http://www.research.mq.edu.au/about/research@macquarie/policies_procedures_and_conduct/documents/Vancouver.pdf)

<http://tinyurl.com/ppqu9ub>

- On Being a Scientist (US National Academies)

[http://www.nap.edu/openbook.php?record\\_id=12192](http://www.nap.edu/openbook.php?record_id=12192)

<http://tinyurl.com/mw9ggel>



# Additional Resources: Writing, ...

- How to Write an Abstract  
<http://users.ece.cmu.edu/~koopman/essays/abstract.html>
- IEEE Guide: "How to write for Technical Periodicals and Conferences"  
[http://open.ieee.org/author\\_guide\\_interactive.pdf](http://open.ieee.org/author_guide_interactive.pdf)
- Reading a Technical Paper  
S. Keshav, "How to Read a Paper", *ACM SIGCOMM Computer Communication Review*, vol. 37, no. 3, pp. 83-84, July 2007.  
<http://www.sigcomm.org/sites/default/files/ccr/papers/2007/July/1273445-1273458.pdf>
- How to start on research  
D. Simon, "Research in the Balance," *IEEE Potentials*, vol. 24, no. 2 (supplement), pp. 17-21, April 2005  
<http://academic.csuohio.edu/simond/pubs/ResearchInTheBalance.pdf>

Thank You !

# Questions ?



- IEEE Author Tools
  - [http://www.ieee.org/publications\\_standards/publications/authors/index.html](http://www.ieee.org/publications_standards/publications/authors/index.html)
  - <http://tinyurl.com/6rzxmxh>