
Publishing, Presenting, and Building your Professional Reputation

Dr. Lynn Mazzoleni, Dept. of Chemistry
Dr. Shari Stockero, Dept. of Cognitive & Learning Sciences
Dr. Aurenice Oliveira, School of Technology

Michigan Tech

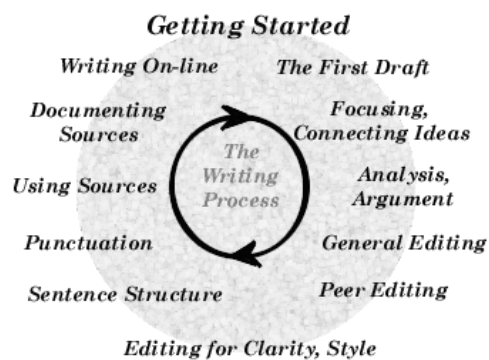
1

I. Publishing Your Research

Writing an Academic Publication

Publishing is the most important part of your research

- Publications are the currency of your career
- Unpublished work is unfinished/undone work



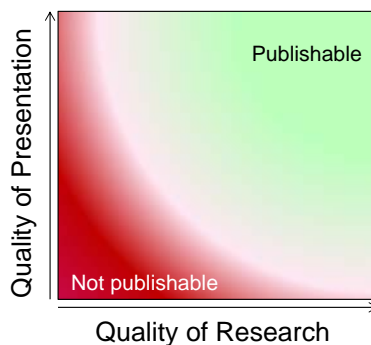
Michigan Tech

Image from <http://www2.warwick.ac.uk/fac/arts/english/writingprog/academicwriting/> 2

I. Publishing Your Research

First: Is Your Research Publishable?

- Have you asked a good scientific question?
- Is the science original in your paper?
- Are your conclusions supported by evidence in your paper?
- Is this information substantial enough to warrant publication?
- Does your work have current relevance or allow for future impact?

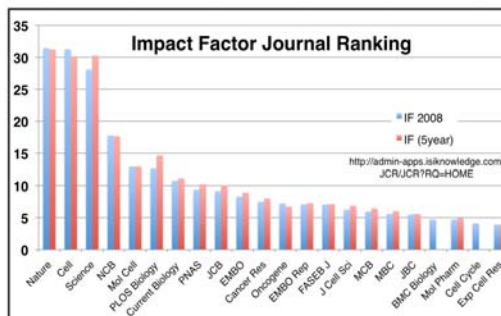


Michigan Tech

I. Publishing Your Research

Journal Ranking/Impact Factors

- How to select the right journal?
 - Aims and Scope
 - Guidelines for Authors
 - Review the Table of Contents
- Rejection rates



<http://sciencetechblog.com/2010/05/05/journal-impact-factors-sjr-vs-isi-web-of-knowledge/>

Michigan Tech

I. Publishing Your Research

Planning & Preparation

- Break up the writing project into small pieces
- Develop an outline – your “roadmap”
 - Mind mapping
 - Working outline
 - Reverse outline
 - Cardification



Michigan Tech

Image from: <http://educationalstar.com/tips-for-writing-your-research-paper/> 5

I. Publishing Your Research

Structure of a Scientific Paper

- | | |
|--|---|
| <ul style="list-style-type: none"> • Cover page <ul style="list-style-type: none"> – Title – Authors & affiliations – Date of last revision • Abstract <ul style="list-style-type: none"> – Principal objectives and scope – Methods employed – Summary of the results – Principal conclusions – Keywords – TOC art (?) | <ul style="list-style-type: none"> • Introduction <ul style="list-style-type: none"> – Background literature – Problem statement – Response to the problem – (Theoretical framework) • Methods <ul style="list-style-type: none"> – Materials – Procedures – Give enough detail to be reproducible (use supplemental documents, if possible) |
|--|---|

Michigan Tech

6

I. Publishing Your Research

Structure of a Scientific Paper cont.

- Results & Discussion
 - Presentation of the results
 - Presents theory, relationships and implications of the results
 - Discuss any exceptions to or outliers of your results
 - Provide explanations for your disagreements with previous work
 - Identify limitations
- Conclusions/Summary
- Acknowledgements
- Appendices or Supplemental Information
 - Detailed procedures
 - Background/unpublished data
 - Additional figures
 - Data
- References
- Tables and Figures
 - Captions
 - Define abbreviations & acronyms

Michigan Tech

Use publisher templates whenever possible

7

I. Publishing Your Research

Setting Goals & Priorities

- Set aside writing time EVERY workday
 - Start with 15 minutes
 - Work up to ~ 2 hours with short breaks
- Aim for 750 new words/day
- Silence the “editor” during composition
- Keep track of your progress
- Do not procrastinate – it creates more stress
- Reward yourself for small accomplishments

Michigan Tech

Image from: <http://campustocareer.files.wordpress.com/2011/09/goal-setting.jpg> 8



I. Publishing Your Research

Write, Review and Revise ...

- Outline/Plan
- Figures and Tables
- Write a first draft
 - Organization
 - Main Concepts
- Review and Revise ...
 - Peers
 - Advisors



Michigan Tech

Revisions, revisions, revisions...

Image from: <http://www.simandan.com/?p=395>

9

I. Publishing Your Research

Submitted!!

- Celebrate ☺
- Yes, there will be more revisions
 - Double blind or One-way blind ...
 - Respond carefully and thoughtfully to ALL of the reviewer comments
 - Major revisions vs. Minor revisions
 - Handling rejection – revise & resubmit (elsewhere)



Michigan Tech

Image from: <http://www.brilliant-essay.com/academic-essay-on-motivation.htm>

10

II. Presenting Your Research

Presenting

Presenting your work is an important part of your professional life

- Opportunity for others to learn about your work
- Allows you to receive feedback
- Chance to network



Michigan Tech

Image from: potential2success.com 11

II. Presenting Your Research

Structure of a Presentation/Poster

- Introduction/Background
 - Literature
 - Problem statement
 - Theoretical framework
- Methods
- Results & Discussion
 - Presentation of the results
 - Theory, relationships and implications
 - Connections with previous work
 - Limitations
- Conclusions/Summary
- Acknowledgements
- References

Michigan Tech

12

II. Presenting Your Research

Presenting Papers

- A good presentation tells a story and engages the audience with your work
- Need to be able to talk about your work in a professional, yet colloquial manner



Michigan Tech

Image from: <http://www.123rf.com>

13

II. Presenting Your Research

Presentation Do's and Don'ts

DO

- Keep your slides clean and readable
- Use charts, tables and figures
- Allow time for questions
- Know the format of the session (equipment, time, etc.)
- Know your audience—work needs to be accessible

DON'T

- Read the slides
- Include too many slides— one per minute is about right
- Go over your allotted time



Michigan Tech

Image from: powerpointpresentationwriting.com

14

II. Presenting Your Research

Don't discount posters!

- Posters are an important way to make your work visible, even in the early stages
- Opportunity to network by talking with colleagues one-on-one
- Allows you to get a sense of what aspects of your work may be unclear to others, what data may need to be looked at in another way, and how others are engaging in related work

Michigan Tech

15

II. Presenting Your Research

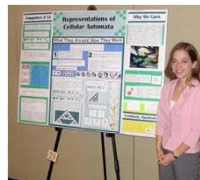
Poster Do's and Don'ts

DO

- Keep your poster clean and readable from some distance
- Use charts, tables and figures
- Give time to everyone who views your poster
- Make your contact information available so people can follow-up

DON'T

- Try to include too much (unless poster will be left hanging when you are not there to talk about it)
- Allow one person to dominate your time



Michigan Tech

Image from:
http://people.duke.edu/~ect6/frame_files/house%2520_pics/jeanie_morgan_pos 16

II. Presenting Your Research

II. Presenting Your Research

Identification of Water-Soluble Organic Carbon in Nonurban Aerosols using Ultrahigh Resolution FT-ICR Mass Spectrometry: Organic Cations

Paricheh Saranipour¹, Vera S. Zamburova¹, A. Garret Hillier¹, Douglas Lowenthal¹, Barbara Z. Ivinica¹, and Lynn Mazzoleni^{2*}

¹Michigan Technological University, Department of Chemistry, 1400 Townsend Drive, Houghton, MI 49931, USA; ²Chemical Science Division of Atmospheric Sciences, NY 59212, USA; *Michigan Technological University Atmospheric Sciences Program, Houghton, MI 49931, USA; *Contact Author: lsmazzol@mtu.edu

Introduction

- Ultrahigh resolution FT-ICR mass spectrometry via a suite of detectors the most accurate measurement of molecular masses available (FT-ICR) is employed in this research project.
- Up to 70% of the organic carbon in air fractions of nonurban aerosols is WSO-C.
- High-resolution WSO-C composition is affected by radiative properties and reactivity in the atmosphere.

Method

- Air mass samples were collected at the Grand Forks observatory (GFO) in the northern hemisphere during the winter of 2010.
- WSO-C was isolated using the GFO air stream and extracted by ultrahigh resolution FT-ICR MS.
- Chemical composition was determined using ultrahigh resolution FT-ICR MS.
- The mass spectrometry data was analyzed with the software package FT-ICR MS.
- 200 to 3000 m/z range was used to analyze the WSO-C.
- 100 to 3000 m/z range was used to analyze the WSO-C.
- 100 to 3000 m/z range was used to analyze the WSO-C.

Results

- 70% of the total mass of the aerosol is WSO-C.
- 70% of the total mass of the aerosol is WSO-C.
- 70% of the total mass of the aerosol is WSO-C.

Elemental Ratio Analysis

Carbon Trend Analysis

Aromaticity Index (AI) Classification

Conclusions

- WSO-C is a mixture of many different organic cations.
- WSO-C is a mixture of many different organic cations.

17

II. Presenting Your Research

Presentations are Opportunities to Make Professional Connections

- Leave time for questions/feedback
- Make yourself available after the talk
- Follow up with people who request more information, either at the presentation or afterward
- Don't be afraid to ask people to meet at another time to discuss your work or theirs (or better yet, connections between the two!)

18

9

II. Presenting Your Research

Take advantage of opportunities!

- Departmental seminars
- Graduate school events (e.g., Graduate Research Colloquium)
- Conferences

Practice makes perfect!

Michigan Tech

19

III. Building a Professional Reputation

*"It takes years to build a good professional reputation,
But only seconds to destroy it" (C. Nickelson)*



Like chess, developing your professional reputation requires a good strategy. Photo/FreeDigitalPhotos.net.

Michigan Tech

20

III. Building a Professional Reputation

1. Honor Your Obligations

- ❖ Overpromising, overextending, overestimating and overdoing
- ❖ Select your activities and opportunities carefully
- ❖ Saying “no” and respectfully declining opportunities instead of taking on a project, then quitting and letting people down
- ❖ Meet deadlines
- ❖ Scientific ethics
- ❖ Good professional conduct



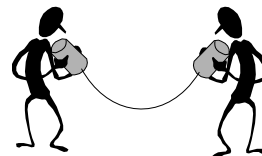
Michigan Tech

21

III. Building a Professional Reputation

2. Always communicate Professionally

- ❖ Over electronic mail and listservs
- ❖ Language used, grammar, spelling
- ❖ Make appropriate use of social media: LinkedIn, ResearchGate
- ❖ Participate in professional network forums
- ❖ Develop your communication skills to:
 - Introduce yourself to a colleague, a student, an expert in the field, a professor
 - Talk scientifically with a colleague
 - Give a presentation



Michigan Tech

22

III. Building a Professional Reputation

3. Publishing

- ❖ Select publishers carefully and aim to publish in good quality journal and conferences that are strong in your field
- ❖ Attending conferences and networking
 - There are opportunities in conference committees for graduate students (lower or no fees)
 - Maintain your professional network by presenting at relevant national and international conferences, etc
 - Bring business cards to conferences and meetings and, more importantly, send a follow-up email to every person you meet
- ❖ Give credit where credit is due
 - Highlighting the credibility of your sources of information, as well as other people, enhances your integrity



Business cards (like finely tailored suits) never go out of style. (Majestic/FreeDigitalPhotos.net)

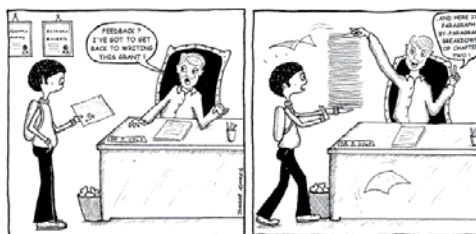
III. Building a Professional Reputation

4. Give and receive feedback

- ❖ Become reviewer of conferences and journals
- ❖ Provide good/thorough reviews
 - Also, timely, specific, objective
- ❖ Join or take an active role in your professional association by, for example organizing a conference or acting as an associate editor for a journal



give feedback



III. Building a Professional Reputation

5. High Quality Research

- ❖ Produce research of the highest quality, as you will be judged according to your publication record
 - Aim quality over quantity
- ❖ When obtaining research funding, use the money wisely to produce solid outcomes
 - More likely to receive bigger grants in the future

Michigan Tech

25

III. Building a Professional Reputation

6. Be Genuine, Trustworthy and Loyal



- ❖ Genuine people are credible
- ❖ Credibility breeds trust
- ❖ Trustworthy people are loyal


“Having these characteristics will enhance your reputation, while omissions of the same are noticed and detrimental” (C. Nickelson)

Michigan Tech

26

Questions ???



References:

[1] C. Williams-Nickelson, "Building a Professional Reputation," American Psychological Association.
 [2] "Maintaining your Professional Reputation," The University of Manchester.
 [3] "A Graduate Student Guide to Developing Your Professional Profile," Tufts University.

Michigan Tech

27

Resources

- **Writing Your Dissertation in Fifteen Minutes a Day: A Guide to Starting, Revising, and Finishing Your Doctoral Thesis**, by Joan Bolker
- **Demystifying Dissertation Writing: A Streamlined Process from Choice of Topic to Final Text**, by Peg Boyle Single
- **Eloquent Science: A practical guide to becoming a better Writer, Speaker & Atmospheric Scientist** by David M. Schultz
- **Writing Your Journal Article in 12 Weeks: A Guide to Academic Publishing Success**, by Wendy Laura Belcher
- **Advice for New Faculty Members**, by Robert Boice
- **Publish and Flourish**, by Tara Gray
- **Doing a Literature Review: Releasing the social science research imagination** by Chris Hart (SAGE, 1998)
- **12 tips for creating better PowerPoint presentations. Available at <http://www.microsoft.com/atwork/skills/presentations.aspx>**
- **The Art of Professional Presentation** by Anne E. Dunning. Available at <http://www.clemson.edu/transportation/Guidelines.htm>

Michigan Tech

28