

Strategies for Human-Human Interaction

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My Significant Moments

1

Immigrated from
Dominican Republic



2



Encouraged to
consider a different
career path



Distinguished Alumni Award



3



Engineering Hall of
Fame, Distinguished
Alumni, Board of
Trustees

4



Caltech
Aeronautics &
Materials



5

Proud mother of 3 strong,
intelligent,
kind daughters



Karina Edmonds

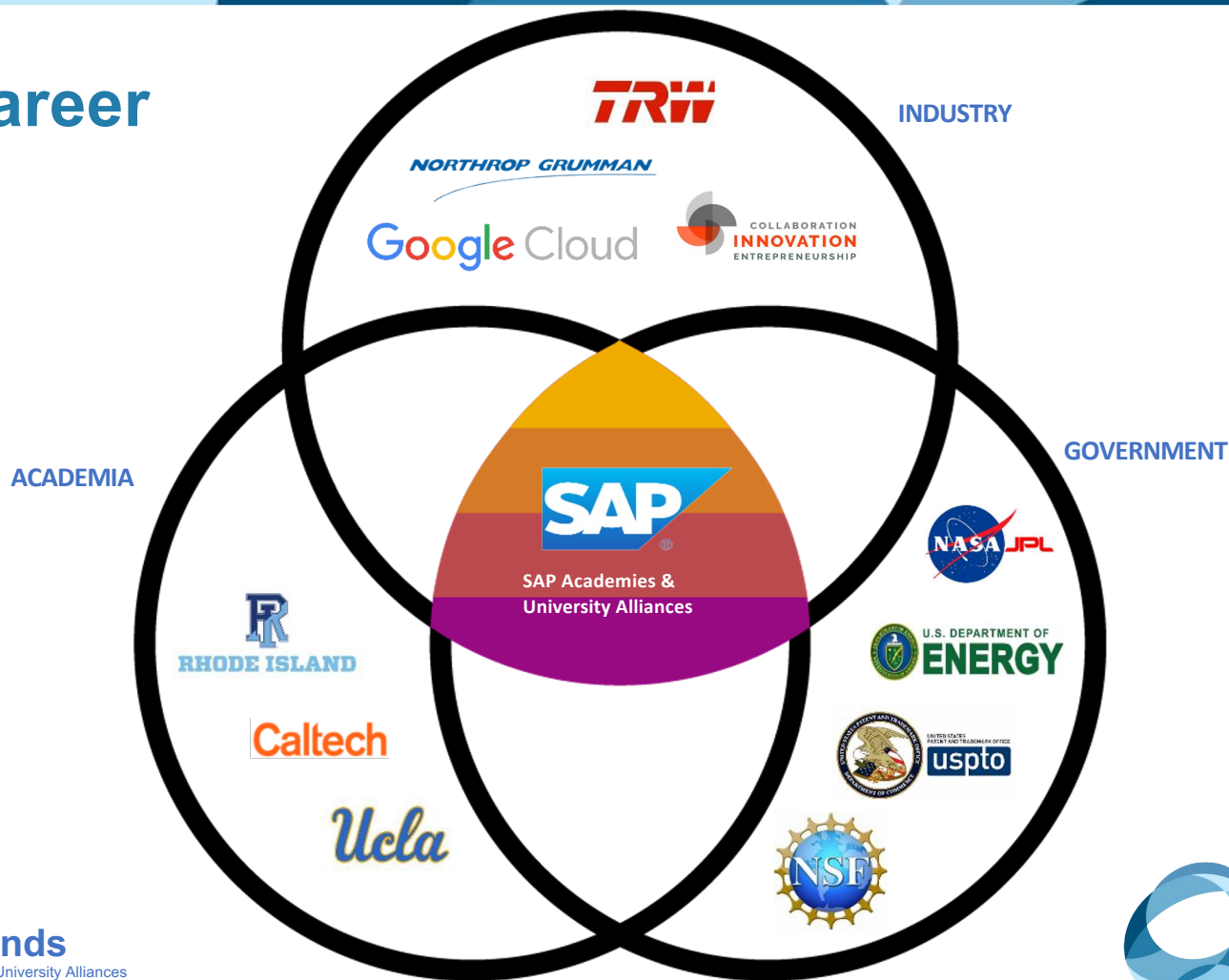
SAP | SVP Head of Academies & University Alliances



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My Career



Karina Edmonds

SAP | SVP Head of Academies & University Alliances



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About Joel



What I do for fun:

- Make people laugh
- Cook (BQQ, baking)
- Arts (photography, design)
- Travel/adventure
- Gaming

Joel W. Branch, Ph.D.

BOSS AI | Chief Product Officer

Education:

- B.S., Computer Science, Howard U.
- Ph.D., Computer Science, RPI

Career:

- IBM Research
- ESPN Innovation Lab
- BOSS AI (enterprise AI startup)

Current Role:

- Chief Product Officer
- Borough Councilmember, Metuchen NJ

More detail:

- I've benefitted from working in different types of tech orgs; large enterprise, entertainment-oriented, startup



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About Quincy



#BLACKCOMPUTERHER

**BLACK
IN
COMPUTING**



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This Session...

- Strategies for productive interaction with faculty, other students and work colleagues...
- In particular, topics pulled from our own experiences.
 - Things we found difficult ourselves
 - Strategies we have observed to help people succeed.
- We don't have slides on every topic listed in the program abstract, but we welcome all questions!
 - During the presentations OR at the end!



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Resources on Harassment

- #MeToo movement has broadened conversations around harassment
- We wanted to raise these topics here, with specific focus on resources
- This is a moving target, because things are changing fast!



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Harassment is

Common and not declining

Severe or frequent *gender harassment* can result in the same level of negative professional and psychological outcomes as isolated instances of sexual coercion.

Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine, National Academies, 2018.

Iceberg model

Well recognized

Sexual coercion
Unwanted sexual attention

Less recognized

Gender harassment



Conference Codes of Conduct

More and more...

- Example: ACM: <https://www.acm.org/special-interest-groups/volunteer-resources/officers-manual/policy-against-discrimination-and-harassment>
 - Covers a range of behaviors: racial / religious / ... discrimination, harassment, etc.
- From ACM “Harassment does not require intent to offend. Thus, inappropriate conduct or language meant as a joke, a prank, or even a compliment can lead or contribute to harassment.”



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Codes of Conduct don't stand alone: What are the policies and processes that go with them?

- Process for reporting
- After a report, how do organizations research/investigate what happened?
- What are the outcomes? Punishment? Record-keeping?
- Example: ACM Process
 - Report to the conference chair or the ACM President or the ACM CEO



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Human-Human Interactions: the Fine Art of Communication



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Successful Careers Require More Than Good Technical Chops

- People who have successful careers are people who have impact
 - They impact the field, the school or the business, and its people
 - Work to have impact, not for the title
- Technical knowledge and skills are the foundation
- Interpersonal skills are essential
 - Communications skills are vital
 - Personal characteristics are the key
- Good leaders need good followers
 - Grow the people around you (you'll grow in the process)
 - Think people, people, people



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Communication Skills Are Vital

- Communicate in terms recipient can understand
 - Put yourself in the other person's shoes
 - Explain technical ideas simply to business persons
 - Jargon, colloquialisms are useful only if both parties understand them
- Be clear about your message: what you want, what you will do
 - Short and sweet wins
- Understand difference between spoken, email, written communication
- Get your grammar, spelling, arithmetic right
 - Sloppy work takes attention away from your message
 - Get a (literate, English-fluent) colleague to proofread, review important documents
 - Avoid the common mistakes: Its vs It's, there vs their, ...
- Prepare well for meetings, presentations
 - Key points up front, and at the end
 - "Tell them what you are going to say, say it, tell them what you said".
 - First items on agendas should be easy to agree on
 - Be flexible: sometimes you have to wing it, think on your feet
- Reflect before speaking
 - "Don't open your mouth until your brain is engaged" 🤔



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Where Communications Skills Are Needed

- Everywhere!!
 - Obvious: to publish, to teach
- To negotiate
- To expand your personal network
 - A good network is essential
 - Must be known outside your own school, company and country as well as within
 - Do people favors; you get them back multiplied
 - Giveback expands your network; rewarding and vital
- To work with a mentor; to be a mentor
- To get a sponsor/funding/awards
- To get people to work with you
 - Teams produce better output than individuals
 - Leaders need teams – but don't have to lead every team
- To get visibility
 - Need to be known by senior folk – for the right reasons
 - Be known outside your school or company – for the right things



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Personal Characteristics Are Also Critical

- Self-Aware
 - So you can minimize faults and maximize strengths
- Empowered (to do the right thing)
 - Better to ask for forgiveness than permission
 - But not too often
- Optimistic; have a positive outlook
- Committed, caring and courageous
 - Be there for your team, business, school
 - Forsake the comfort zone; go where you fear to venture
 - Speak out; have a position on important matters; don't be a moral coward
- Trustworthy
 - Deliver for people; do it and tell them directly and promptly
 - Professional integrity is essential for long technical life



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Human-human interactions are essential to career success

- Interpersonal skills are essential
 - Used everywhere: core job and career-enhancing activities
- Communications skills are vital
 - Think first: pick the right medium, right words, right tone
 - Spend the time to do it well
- Personal characteristics are the key
 - Know thyself
 - Grow your positive attributes
 - Avoid derailment factors
- Nurture your relationships
 - Grow the people around you (you'll grow in the process)
 - Think people, people, people



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Implicit Bias and Stereotype Threat

A few slides to lay out the issues...

And then some concrete ways to counteract and overcome



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Implicit Bias

- “A positive or negative mental attitude towards a person, thing, or group, that a person holds at an unconscious level. In contrast, an explicit bias is an attitude that somebody is consciously aware of having.”
- Our implicit and explicit biases often diverge.
 - For example, a person may consciously express a neutral or positive opinion about a social group that they unconsciously hold a negative opinion about.
- Ideas and habits ingrained over years and years



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Implicit Bias => Technical Privilege



- If you *look* the part, you may get the benefit of the doubt...without people being aware of it...
 - Great essay: “Silent Technical Privilege” by Prof. Philip Guo, University of Rochester.
- So, what if you don't look the part?



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<http://pgbovine.net/tech-privilege.htm>

Stereotype Threat

- Stereotype threat: The fear of confirming a negative stereotype about a group, actually causes refers to being at risk of confirming, as self-characteristic, a negative stereotype about one's group (Steele & Aronson, 1995).
- Early experiments by Steele and Aronson:
 - showed that Black college freshmen and sophomores performed more poorly on standardized tests than White students when their race was emphasized.
 - When race was not emphasized, however, Black students performed better and equivalently with White students.
 - *The results showed that performance in academic contexts can be harmed by the awareness that one's behavior might be viewed through the lens of racial stereotypes.*
- Similar subsequent studies on women & math skills.



What can we do about all this?

Concrete ways to counteract and overcome



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You, as grad
students!

What can ~~we~~ do about all this?

Concrete ways to counteract and overcome



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Overcoming...

1. Establish your credentials

- **Example Scenario:** Prof. Adviser introduces you to Prof. Important: “This is Jane. She’s a great gal.”

Improvement #1: “Hello Prof. Important. I’m one of Prof. A’s grad students and I’m glad to have the chance to talk with you. My recent work extends on yours to cover ...”

OR

Improvement #2: If Prof. Adviser is a trusted ally, then try asking them (offline) to include your credentials in your intro in the future: “This is Jane. She is one of my senior graduate students and she has done some very cool work on XYZ extends on your work to cover ...”

- **Other ways to make credentials explicit:**
 - If you are a post-doc, include PhD or Dr. in your sig file and on your nametags.
 - Keep your CV up-to-date and put it on your webpage so your accomplishments are easy to find during internet searches.
- Others?



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Overcoming ...

2. If in doubt, lean technical...

- Cultivating a technical network is a mix of technical and social rapport...
- But until you know someone well and have a clear technical identity, it is best to lean the balance towards being a bit more technical and a bit less social in your conversations.
- Example scenario:
 - You're in a cluster of people talking during a coffee break at a conference....Someone shifts the conversation to talk about how nice the weather always is at your school.
 - Your response?
 - A) Who cares about the weather, I work all the time.
 - B) One sentence to acknowledge the weather is nice, then shift gracefully to talking about a cool paper from the recent session.
 - C) Continue to talk about the weather, then about the good bars near your school, etc etc.
 - D) Other?



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And many more...

1. Be visible: Ask a question at least once a week in every class. Your voice combats stereotypes (your own and other's). Prep questions ahead if needed. If the men don't raise their hands and don't wait to be called upon, then neither should you. ;-)
2. Build confidence and expertise: Form a paper reading group. Shoot for a critical mass (50%) of women. Even if you're in different research areas. Small, friendly, but academically rigorous. (Expertise in understanding other topic areas. Confidence in presenting to broad audiences.)
3. Fake it until you make it: None of the people you're interacting with are as confident and all-knowing as they seem. Practice projecting a confident aura, and in time it will be the truth!
4. Get yourself out there: Go once a year to some "women in computing" events. Grad Cohort, Grace Hopper, etc. Have technical conversations with peers and with senior colleagues.
5. Get yourself out there: Attend technical conferences. Use Q&A skill from #1 and #2 to ask questions at these forums too!
6. Stand up for yourself: When someone says, "you just got X because you're a woman", decide if this particular situation is worth a response... but have your response ready.



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Resources

- Reducing Stereotype Threat:
 - http://www.stanford.edu/~gwalton/home/Welcome_files/StrategiesToReduceStereotypeThreat.pdf
- Essay on Silent Technical Privilege:
 - <http://pgbovine.net/tech-privilege.htm>
- Online Implicit Bias Self-tests:
 - <https://implicit.harvard.edu/implicit/>
- Recent NYTimes on Micro-Aggressions
 - <http://www.nytimes.com/2014/03/22/us/as-diversity-increases-slights-get-subtler-but-still-sting.html>
- Many many more...



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Strategies for Meetings and Talks Writing and Reviewing



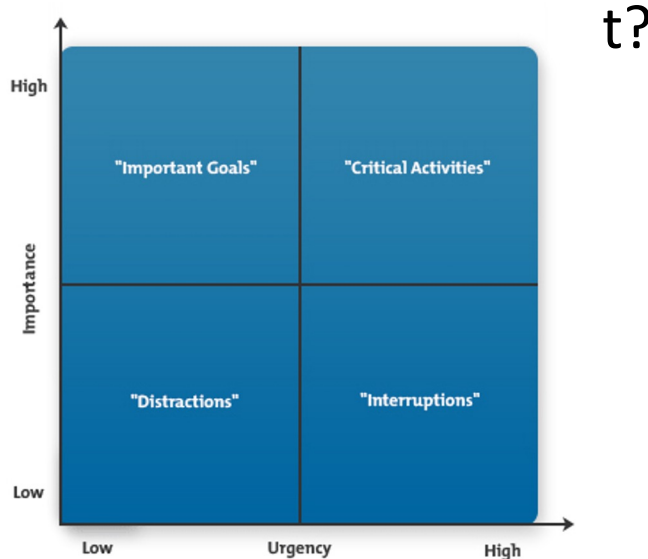
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Meetings – An Algorithm

1. Should you go?

- Is the meeting relevant to you?
- Is the meeting



Src: Eisenhower/Covey



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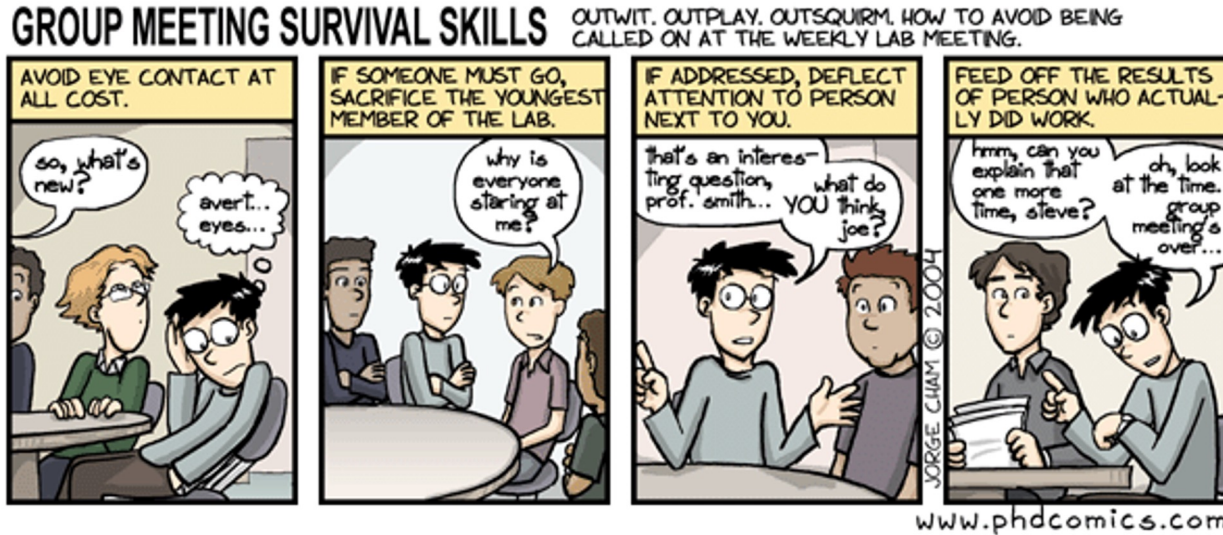
Meetings – An Algorithm

2. How do you establish your presence?

- Get
- Intr
- Hav

3. What

- Not
- Avc



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Teleconference Meetings

- Use a good connection
- Call from a quiet place
- Beware the webcam
- If attending:
 - Introduce yourself at the start of a call
 - Give your name before asking questions/making comments
 - Mute is your friend!
- If hosting:
 - Start with roll call
 - Remind participants if meeting is being recorded
 - Manage time, agenda
- If presenting:
 - Put numbers on your slides
 - Pause for questions



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Thanks to GC'13 speakers!

Managing Participants

- Are you being unheard?
 - Say something!
 - *I have a comment on that*
 - *That's great, Tom, I'm so glad you agree with me*
 - Move!
 - Move your chair, stand up, etc.
- Is someone else unheard?
 - Say something!
 - *I think Amrita has something to say*
 - *Yoon, do you have a comment on this?*
- Is someone dominating the discussion?
 - Say something!
 - *Thank you, Hari, for those comments. Perhaps you can discuss with Sam offline. In the interests of time, let's let Sam continue her talk now.*



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Writing Process?

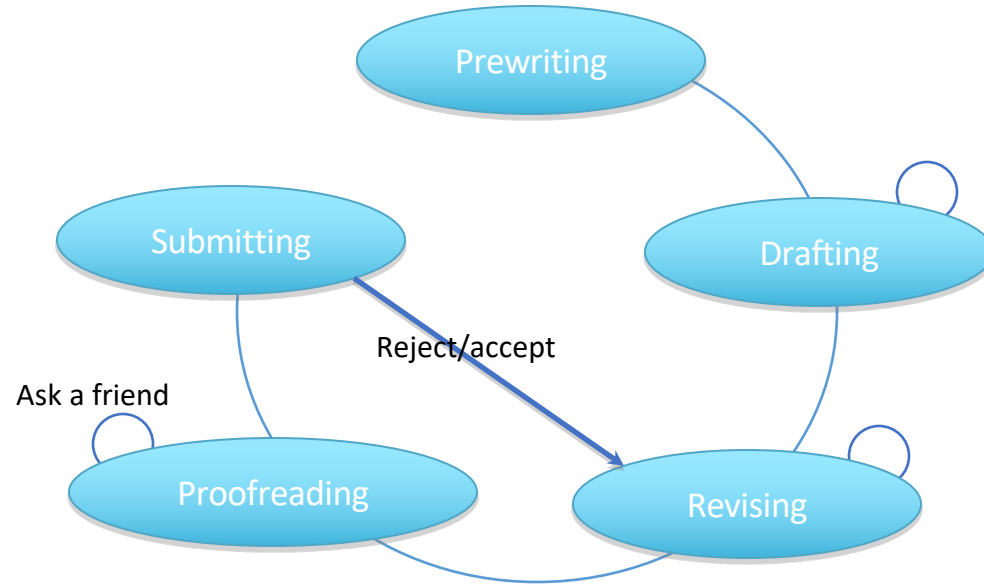


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Thanks to GC'13 speakers!

Writing Process



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Academic Writing and Perfectionism

“Academic writing has the greatest potential to inflame perfectionism for several reasons...the lack of built-in accountability for writing, the fact that academic writing is a long and difficult process, and that **the nature of knowledge production guarantees criticism**”

- Kerry Ann Rockquemore



JORGE CHAM @THE STANFORD DAILY

phd.stanford.edu/comics



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Becoming Realistic

- “Even for highly successful academics, criticism and rejection never entirely goes away” - Female Science Professor
- “To survive the review process, you've got to look at reviews through a certain type of lens or filter that allows you to ignore the useless comments from cranky reviewers and extract the essence” - Female Science Professor



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Rejected Paper/Proposal

- Breathe
- Know that you are not alone
- Put the reviews aside for a day or two
- Read them again (with your coauthors or a friend), focusing on the facts
 - Comments on the research: are they reasonable? How long would it take you to do the extra work? – Make a plan!
 - Comments on related work: look it up
 - Comments on the writing: deal with them
- **Resubmit!**



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Special Cases

- Very short (negative) reviews
- The dreaded you should cite <yourself>
- Personal attacks
- Biased reviews by your competition



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Other Comments

- Practice
- Find writing partners
- Don't put all your eggs in one basket
- Be a good reviewer



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Recommended Resources

- **Writing**

- **How to Write a Lot**, Paul Silvia
- **Writing Science**, Joshua Schimel
- **Writing for Computer Science**, Joshua Zobel
- **Frédo Durand**: <http://people.csail.mit.edu/fredo/student.html>
- **Purdue OWL**: <http://owl.english.purdue.edu/owl/>

- **Speaking**

- **Crucial Conversations**, Kerry Patterson
- **How to Control Any Conversation**, Peter Murphy
- **Getting to Yes**, Roger Fisher, William Ury & Bruce Patton
- **Toastmasters**



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Recommended Resources

- **Confidence**
 - **Ms. Mentor's Impeccable Advice for Women in Academia**, Emily Toth
 - **Kidding Ourselves: Breadwinning, Babies, and Bargaining Power**, Rhona Mahoney
 - **Nice Girls Don't Get the Corner Office**, Lois Frankel
 - **Women Don't Ask: Negotiation and the Gender Divide**, Linda Babcock and Sara Laschever
 - **Kerry Ann Rockquemore**: <http://www.insidehighered.com/users/kerry-ann-rockquemore>



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Q&A

And your discussion and comments



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Additional Scenarios

- In your group meeting, your colleague never looks at you and keeps interrupting you.
- Your collaborator student S wants to and is working on all your projects. You want to have some without S.
- You have been working on an idea and have some results, but your advisor has not suggested a venue or a publication plan.
- You are great at coming up with ideas and implementing solutions, but get stuck when writing them up.
- Your junior collaborator lacks confidence in public speaking.
- You are going to a conference and want to meet person X to talk about a research topic (or a job at their organization).
- How do you (an introvert) successfully navigate a three-day symposium with 400 attendees and 30 speakers, without exhausting yourself?
- You have been invited to interview for a job at X. The two-day interview will involve meetings with managers and engineers, as well as a coding test/talk/sample lesson. How do you prepare for the events on this interview?
- How do you safely and professionally handle human-human interaction in the digital area (emails, blogs, social networking)?
- How do you deal with the personal-professional boundary (going back to social networking, but also generally where lines are in the academic or professional workplace)?
- In general, how do you interact with someone who is your boss (either your advisor or a summer internship boss)?
- How do you consider the role of attire in human-human interaction (I recently read 60% of perceived "presence" is related to attire)?
- How do you have the "I'm expecting" conversation with your boss?



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