### How to Make the Most of Student-Advisor Relationships

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### Two (Extreme) Advising Relationships

Hands-off

Hand-holding





Computing Research Association Widening Participation

Neither is ideal.

Communication and agency are key

# What is the role of the advisor in the relationship



#### **Activity**

Work alone to make a list of lots of things you want from an advisor (2 minutes)

Then, in pairs or triples, choose two things from your combined lists that you feel are most important (4 minutes)

Volunteer your two items to the group



#### Your advisor is a teacher



#### Teach you:

- Research skills and strategy
- How to evaluate existing research
- Communication and presentation skills
- Professional and ethical behavior

Widening Participation

#### Your advisor is a guide



#### **Guidance on:**

- Courses to take
- Research topics
- Publication venues
- Career planning



#### Your advisor is your promoter

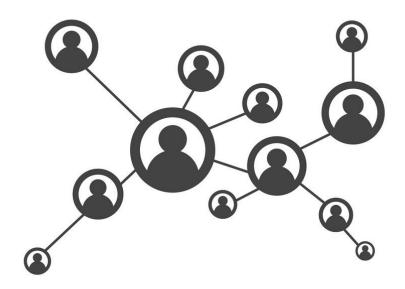


- Foster and promote your career
- Enable career opportunities, visibility, and awards
- Support and encourage you through your job hunt and beyond



### Your advisor is your network seed

- Your advisor can expose you to opportunities for networking at conferences and other events.
- Their colleagues and your research lab peers will become important nodes in your network.





# What is your role as a student in the relationship



#### **Activity**

Work alone to make a list of lots of things that are your responsibilities in the relationship (2 minutes)

Then, in pairs or triples, choose two things from your combined lists that you feel are most important (4 minutes)

Volunteer your two items to the group



#### What is Your Role as a Student?

- Manager of your graduate experience
- Need to be proactive and organized
- Need to effectively communicate
  - Goals
  - Areas for growth
  - What does and does not work for you
  - How advisors and mentors can help
- Meeting cadence and preferred ad hoc communication mechanisms
- Need to seek out and take advantage of other resources
- Need to be open to your advisor's and mentors' guidance





#### Manage Your Advising Relationships

- Meet regularly
  - Bring work products to discuss short-term progress
  - Periodically discuss longer term research plans
  - Periodically discuss long term career goals
- Decide on communication frequency and mechanism
  - How to get help between meetings
  - Pre- and post-meeting emails
  - Shared electronic notebook



#### Manage Regular Advising Meetings

- Bring a written plan (e.g., Powerpoint slides)
- Start with contextual review
  - Problem you're working on and why it's important
  - Target deliverable
  - Progress made so far
  - Current and future problems
- Discuss recent accomplishments
  - New definitions, classifications, related work, understandings, progress on infrastructure, experiments, proposed solutions, ...
- Discuss problems or challenges
  - Bring detailed examples





### Manage Regular Advising Meetings (cont.)

- Agree on what to accomplish next
  - Propose next steps
  - Discuss and revise accordingly
    - e.g., too ambitious, too limited, pursue some intermediate steps or totally new direction
  - Discuss concrete goals or products for next meeting
  - Provide written summary on next steps



#### Manage Discussions of Longer Term Plans

- Discuss longer term goals and strategies for achieving those goals
  - Paper submission
  - Acquisition of skills or experiences
  - Career goals
- Review your overall progress
  - Ask if you are making adequate progress
  - Discuss your strengths and weaknesses
  - Discuss how you can build on your strengths
  - Discuss how you can address your weaknesses
  - Ask about specific opportunities
    - Internships, workshops, fellowships, teaching opportunities





#### **Navigate Your Own Path**



- Find and explore opportunities to develop your skills
  - Research methods, statistics, data visualization, etc. course
  - Workshop on specific technology needed for research
  - Writing workshop
  - Teaching workshop
  - Talks (including practice talks)
  - ...



# How to find a research advisor and how to decide if they are a good fit





#### How do you find an advisor



- Google interesting research areas/projects
- Email the professors
- Meet them at conferences
- Have someone to recommend you

#### After joining the program:

- Apply for existing funding/research opportunities
- Take classes and impress the professor
- Volunteer for a research project and participate in their research lab





#### Personality



- Extreme: your advisor is your pal, and that prevents them from giving you constructive criticism.
- Extreme: your advisor is mean or grumpy, you are scared of them, and you cannot communicate with them effectively.
- Middle ground: your advisor is friendly and open to communication, they are able to tell you the hard truth about your work.







#### **Funding**



- Extreme: your advisor has no funding and they are not actively looking, or there are no funding opportunities for the specific research area.
- Extreme: your advisor has plenty of funding, but their role is to act as a money-maker and they are not involved with students or research.
- **Middle ground:** your advisor has funding and can support you through the program, or they can provide you with opportunities of external support.



#### Mentoring style



- Extreme: your advisor hand-holds you. But you never learn to be self-sufficient.
- Extreme: your advisor gives you no guidance and let you stumble on your own. You may learn to land or you may perish trying.
- Middle ground: your advisor gives you the tools to succeed, they are vigilant but not overprotective.







#### Working style



- Extreme: your advisor is apathetic and never available. You do what you want, whenever you want. The end result can be catastrophic.
- Extreme: your advisor is controlling and micromanages you. Their expectations may be unrealistic.
- Middle ground: your advisor understands your working style. They can push you without breaking you. They provide you with realistic and well defined goals and standards.





### Research lab and collaboration environment



- Extreme: your advisor leaves the research lab to self-manage; there is no guided collaboration. The environment feels disorganized.
- Extreme: your advisor is authoritarian, nobody has a voice except for them. The environment feels heavy.
- Middle ground: your advisor promotes a healthy and collaborative research lab, everybody feels heard and appreciated. The environment is supportive.





# What to do when the relationship has ups and downs



#### **Activity**

In pairs, one of you play the student and one the advisor. Consider a scenario in which you are discussing how much to work over the upcoming holiday to meet a paper deadline.

As the advisor, you are junior faculty, and this submission is extremely important to your tenure case.

As the student, you are going home to see family for the first time in 3 years.

#### Relationships Have Ups & Downs

#### Conflict over

- Mismatched working styles
- Mismatched expectations
- The relationship is one-sided
- Lack of funding



- · Communication is breaking
- Frequent arguments
- · Lack of interest from at least one side
- Inconsistencies and contradictions







#### How to repair a relationship

- Open/frank communication
- Setting up boundaries
- Define common and realistic goals and expectations
- Define contingency plans
- Balance the effort
- Find a co-advisor
- Talk to your peers in your research lab
- Talk to your peers in other labs









### Despite all intentions, the relationship can still fail



#### How to break up with your advisor

- You don't need to stay on an unhappy situation
  - Find another advisor on your same department
  - Switch programs/universities
- The way in which you make your exit matters!
  - **Best case scenario:** your old advisor is an ally, participates in your committee, writes a recommendation letter
  - Worst case scenario: you made a lifelong enemy, whose only goal in life is to ruin your career
- Do NOT burn all the bridges
  - Communicate, be polite, be helpful





#### At the end, it's all about balance

- You and your advisor form a symbiotic relationship for 2 to 7 years
- But the care and commitment to each other can last a lifetime





# How do you find additional support?



### How Do You Find Additional Support?

- Create or join peer networks
  - Paper reading group
  - Qualifying exam study group
  - Thesis writing group
  - Online student groups
  - Conference student groups
- Find additional mentors
  - Senior research member of group
  - Research group alumni
  - Industry researcher in your area
  - Former research mentors
  - Teaching faculty mentor

- How do you create connections?
  - Volunteer to present your work
  - Ask for feedback on preliminary research
  - Ask questions after a talk
  - TA for a faculty member
  - Do an internship
  - Participate in "Meet a Senior X" programs

