

How to Make the Most of Student-Advisor Relationships

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What is an Advisor?



- According to the dictionary, an **advisor** is: *
 - somebody whose job is to give advice about a subject
- In the academic environment:
 - Someone who knows the rules needed to successfully complete a graduate program
 - Course obligations
 - Teaching obligations
 - Research expectations
 - Time limitations
 - Provides a map to complete your degree

*<http://dictionary.cambridge.org/>



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What is the PhD Student-Advisor Relationship?

- A **relationship** is defined* as:
 - the way in which two things are connected
 - the way in which two or more people feel and behave towards each other
 - the way in which things are connected or work together
- The PhD student-advisor relationship is often described as an apprenticeship.
- An **apprentice** is defined* as:
 - someone who has agreed to work for a skilled person for a particular period of time and often for low payment, in order to learn that person's skills

*<http://dictionary.cambridge.org/>



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What is a Mentor?



- A **mentor** is defined* as:
 - a person who gives a younger or less experienced person help and advice over a period of time, especially at work or school
- A mentor helps you navigate a path to your destination
 - May help you decide what that destination is
 - There are many different decisions
 - Helps prepare you to succeed

*<http://dictionary.cambridge.org/>



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Have More Than One Mentor

- Ideally, your research advisor is your primary mentor
- A single person isn't the best person for everything
 - We're all more skilled at some things than others
- Good to have multiple mentors for different topics and skills
 - Research advisor for high level research ideas
 - Post-doc / senior grad student for practical research ideas
 - Industrial research mentor
 - Teaching faculty mentor



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Two (Extreme) Advising Relationships

Hands-off



Hand-holding



Communication and dialogue are key



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Kelly Shaw

Associate Professor
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What Are My Advising Experiences?

Student



Stanford
University

Advisor



Williams



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Global Computing Lab @ UD circa 2009

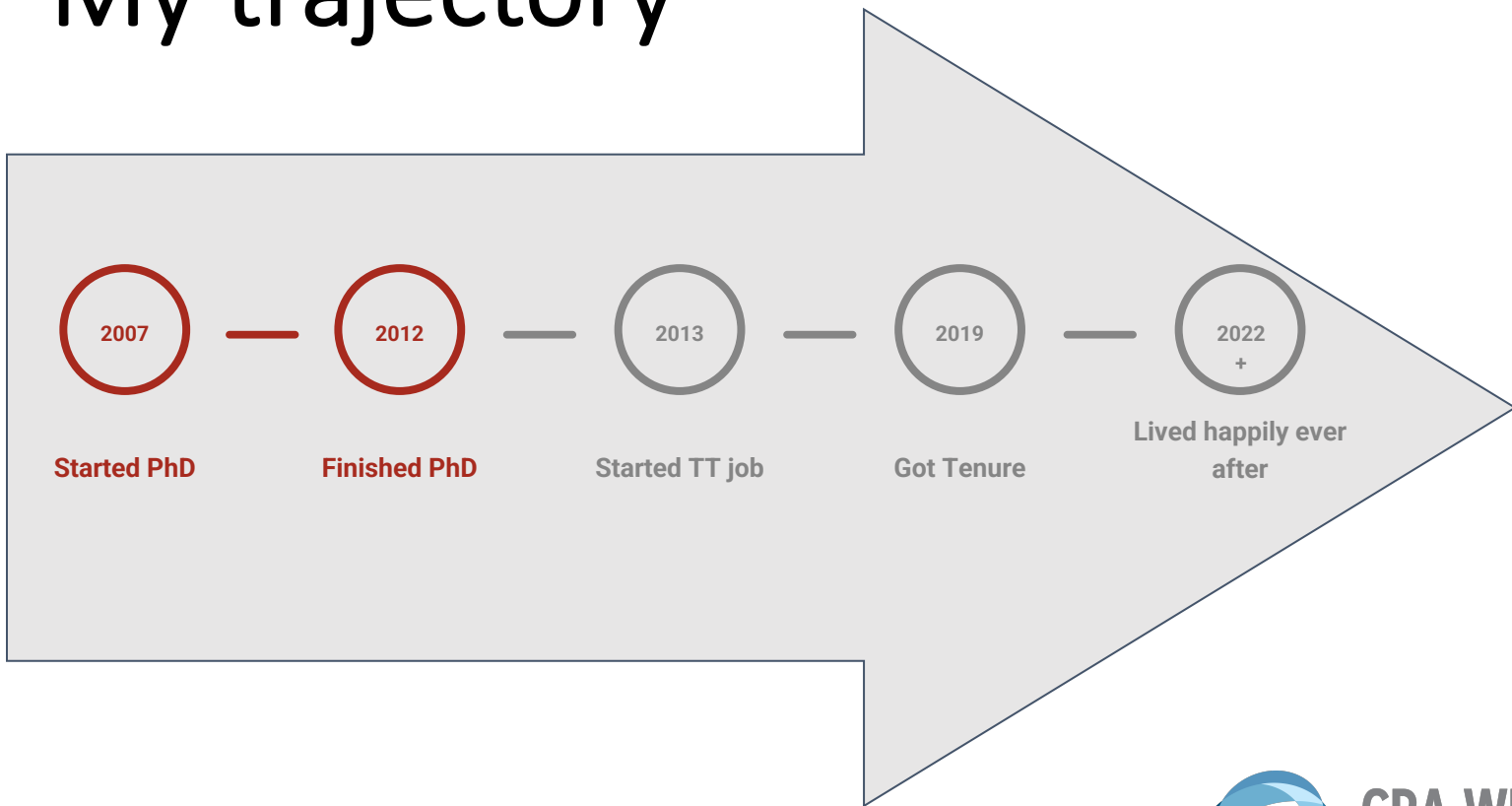
My advisor: Dr. Michela Taufer



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My trajectory



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My advisors and the mentors
that I have made along the way
have made all the difference



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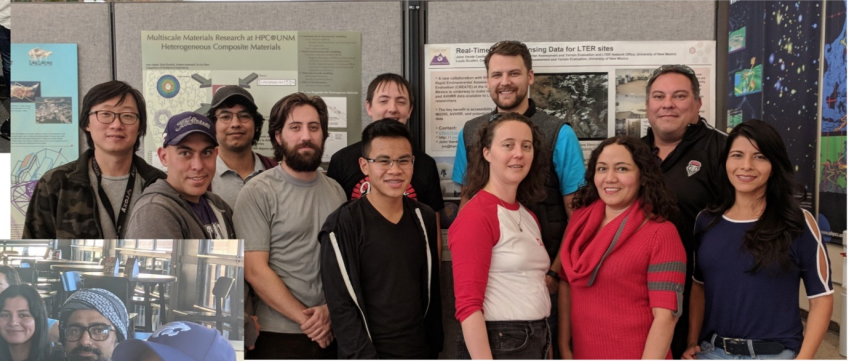
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Data Science Laboratory @ UNM

2019



2015



2017



2021



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What is the role of the advisor in the relationship



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Your advisor is a teacher



Teach you:

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



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Your advisor is a guide



Guidance on:

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



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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

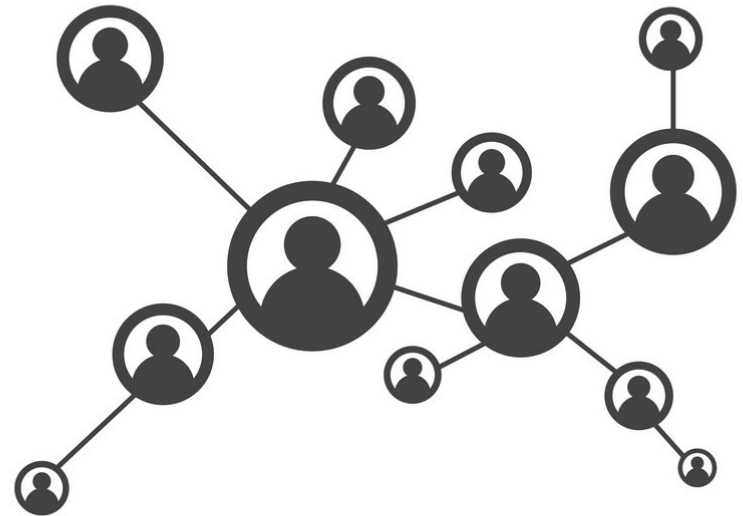


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Your advisor is your network seed

- 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.



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What is your role as a student in the relationship



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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
- Need to seek out and take advantage of other resources
- Need to be open to your advisor's and mentors' guidance



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Manage Your Advising Relationships

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



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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



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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

TO DO LIST

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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



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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)
 - ...



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



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How do you find an advisor

- Before joining the program:
 - 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



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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.



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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.



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Mentoring style

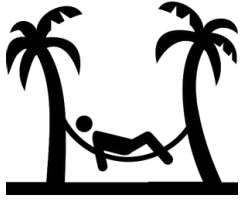


- **Extreme:** your advisor hand-holds you. But you never learn to be self-sufficient.
- **Extreme:** your advisor gives you no guidance and let you stumble on your own. You may learn to land or you may perish trying.
- **Middle ground:** your advisor gives you the tools to succeed, they are vigilant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



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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.



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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.



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What to do when the relationship is not working



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What can break the relationship

- Why the relationship fails:
 - Mismatched working styles
 - Mismatched expectations
 - The relationship is one-sided
 - Lack of funding
- How to tell that it is failing:
 - Communication is breaking
 - Frequent arguments
 - Lack of interest from at least one side
 - Inconsistencies and contradictions

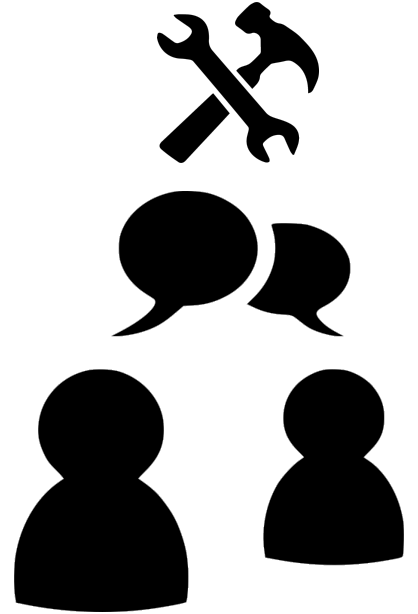


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How to repair the relationship

- 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



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Despite all of this, the
relationship can still fail



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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



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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



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How do you find additional support?



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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



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Thank you!

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