Finding an Advisor and Developing an Effective Working Relationship with Them

Daniel Jiménez, Texas A&M
Richard Ladner, University of Washington

Daniel A. Jiménez

- Education
  - BS/MS Computer Science, UT San Antonio 1992/1994
  - Ph.D. Computer Sciences, UT Austin 2002
- Jobs
  - Instructor/Research UT Health Science Center San Antonio
  - Assistant/Associate Professor, Rutgers
  - Associate/Full/Department Chair, UT San Antonio
  - Professor, Texas A&M University
  - Occasionally consult with industry
- Area
  - Computer architecture: branch prediction, cache management
  - Invented perceptron branch predictor currently in your PC or phone
- Personal
  - Dual citizen USA/México
  - Born and raised in Texas
 - Married with one daughter

Richard Ladner

- Education
  - B.S. St. Mary's College of California, 1965
  - Ph.D. University of California, Berkeley, 1971
- Jobs
  - University of Washington, Seattle 1971 – present
  - Officially retired in 2017
  - NSF grants in broadening participation
    - AccessComputing
    - AccessCSforAll
- Area
  - Theoretical Computer Science (35 years)
  - Accessible Computing (15 years)
- Personal
  - Born in California to deaf parents
  - Twin brother who was schizophrenic
  - Married with two daughters both in their 30s
  - Enjoy golf, skiing, sailing
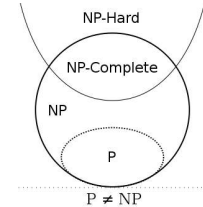
Outline

- What is a good advisor?

- How to find an advisor?

- How to manage your advisor?

- Discussing change with your advisor!

A PhD program is an Apprenticeship

An ideal advisor ….

- a good research advisor

- a good mentor

- a good fit

What should a good advisor/mentor do?

- Teach you fundamental research skills. How to
    - Prepare papers, talks, & proposals
    - Critically read the literature
    - Technical foundations

- Guide you to find a research topic & develop your identity as a researcher

- Demonstrate balance, research ethics, an intellectual roadmap

- Foster your career development through your PhD to your first job & promotion…and next job and promotion
    This is a life-long relationship

Finding An Advisor

How to find a good advisor/mentor

- **Get to know your potential advisor(s)**
  - Meet them (in person/skype/phone)
  - Know their research
    - read their papers
  - Be persistent (but don't pester)
    - and ask informed questions

- **Get to know their lab culture**
  - Talk to multiple grad students in the lab!
    - including graduated students
    - (and) ex-students
  - Understand expectations about workload
    - (courses vs research)
    - Impact of funding structure

Assess the Advisor Fit

- Assess fit along multiple dimension:
  - Research topics
  - Advising style
  - Lab culture/structure
  - Support for URMD
  - Status within the community
  - Hands-on vs hands-off
  - Expectations from students

Be Systematic in analysis of potential advisors

Finding advisors for interdisciplinary research

- One, two or more advisors and mentors? Often, it takes a village.

- Do they appropriately balance breadth vs depth of research?

- Do they have a core identity that supports or overlaps with yours?

- Are they open-minded and enthusiastic about learning from other fields?

- Can they provide financial support for interdisciplinary research?

- Will you find a community of researchers that support your work?

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Exercise: Ask Faculty Member to Work with Them

- Pair up with a partner
- You will role play talking with a faculty member in their office and ask them if you can join their research group.
- Take 2 minutes to do this, and then switch roles.

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Managing Your Advisor

Communication is key to management

- Multiple vehicles for communication
  - Weekly meetings
    - Group meeting
    - One-on-one
  - Emails
    - Keep emails short and direct
    - All messages are read --> responses may be slow

- Ask for more time if you need it

Make the Most of Every Interaction

- **<u>Mentally outline</u>** the meeting
  - Identify discussion points
  - Verify/validate the motivation behind each discussion point
  - Send out an agenda before the meeting

- Make sure expectations and assumptions are clear

- Maintain project archives
  - Take notes, organize them, and send out summaries

Discussing Change

What if its not working….

Sometimes, despite all your good efforts, things don't work. How to handle it depends on the situation
- poor working style fit
- poor research fit
- something more serious is wrong

Try to remember, changing advisors is NOT the end of the world:
- Often, if you feel there is a problem then your advisor likely feels that way as well
- While changing advisors may cost some time, it may be less than you think and may be made up by better results/outcomes

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Exercise: Hard discussions with your advisor

- Pair up with a partner. Pick one of the topics of discussion with your advisor, or another of your choosing, and role play it with your partner.
- Take 2 minutes to do this, and then switch roles.

Scenarios:
- Tell your advisor you would like to work on one of the other projects in your group.
- Tell your advisor you feel you should be a co-author on a paper your labmate is working on.
- Tell your advisor you are ready to graduate.

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Final Thoughts

Take home messages

Do your research! Look for
- A good research advisor
  - Productively engaged in research you are passionate about
  - Willing and able to effectively teach and guide you in research
  - Able to help fund your research
- A good mentor
  - Cares about your career & effectively supports your success
- A good fit
  - Personalities, research style & philosophy, lab structure and people

- It takes a village: You may need more than one advisor and mentor

- It's a two way street: Communicate to your advisor the support that you need & try to work out problems

Questions?

Resources

A site with some good tips (some of which we've adopted & adapted for this talk):

https://greatresearch.org/2013/08/14/managing-your-advisor/