DEMENTORS ARE AMONG THE FOULEST CREATURES THAT WALK THIS EARTH. THEY INFEST THE DARKEST, FILTHIEST PLACES, THEY GLORY IN DECAY AND DESPAIR, THEY DRAIN PEACE, HOPE, AND HAPPINESS OUT OF THE AIR AROUND THEM... GET TOO NEAR A DEMENTOR AND EVERY GOOD FEELING, EVERY HAPPY MEMORY WILL BE SUCKED OUT OF YOU. IF IT CAN, THE DEMENTOR WILL FEED ON YOU LONG ENOUGH TO REDUCE YOU TO SOMETHING LIKE ITSELF...SOULLESS AND EVIL. YOU WILL BE LEFT WITH NOTHING BUT THE WORST EXPERIENCES OF YOUR LIFE.

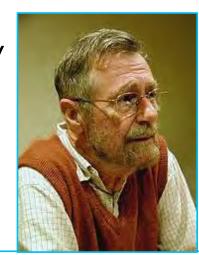
-REMUS LUPIN TO HARRY POTTER

DE MENTORING AND DE MANAGEMENT OF DA STUDENTS
DAVID NOTKIN • UW COMPUTER SCIENCE & ENGINEERING

- Only universities have students on a regular, longterm basis: if you are at a university, you must care deeply about students
- Nico Habermann said: "Focus on the students, since graduating great students means you'll produce great research, while focusing on the research may or may not produce great students."

Alan Perlis, 1<sup>st</sup> Turing Award recipient, did: "When a professor insists computer science is X but not Y, have compassion for his [or her] graduate students."





Nico's adviser, Edgser Dijkstra, did not share this philosophy

- I have hardly any scholarly knowledge about mentoring students – and I had none when I received the UW Distinguished Graduate Mentor Award in 2000
- □ Thus, my credentials for this session are weak

- Credential #1: My mother was a first-rate role model, a really good social worker who could *listen*!
- Credential #2: I have advised/co-advised 19 PhD students

- 19 is a pretty small number so building a model of students from it is hard and dangerous
- Even now each student is different enough from my previous students to each need a different kind of mentoring

- Even effective faculty mentors should be able to benefit from thinking hard about this throughout their entire careers – happens in practice much less than it should
- You should have ongoing discussions throughout your entire career about mentoring!

- Mentoring is (in part) a relationship between two people
- Relationships are inherently complicated and nonalgorithmic

- Mentoring ≠ advising
- Roughly, advising focuses on scholarly work while mentoring focuses on career/life success — not so easily separable, of course
- There is a difference of opinion about whether one should have a single mentor (almost always the adviser) or multiple mentors
  - I recommend strongly that you encourage your students to talk to other faculty often

- □ I will talk about my style of mentoring
- But someone once said: "Mentoring is (in part) a relationship between two people..."
  - And you aren't me!

### Notkin's approach (many exceptions and variants!)



Hi, I might want to do some software engineering research with you.



Great! What do you think sucks about software engineering and why?

Critique the ideas, give some pointers for reading, etc.

Define a project

Work on the project

Problem-oriented, not solution-oriented

**Until Project = Dissertation** 

It's the student research, so they care more about it

Notkin CRA Mentoring 2012

- My approach leads to one common struggle: if you have a grant or contract with specific obligations, how do you satisfy those obligations while allowing the students to define and own a problem to work on?
- With NSF, I haven't found this to be a problem in fact, more often, the students' work leads to a proposal (which they generally take the lead on)
- I have much less experience with DARPA, etc., in this dimension – but in any case, great work is the highorder bit and can often be spun effectively

# You and your students have related but distinct objectives

You	Your students
Great research	Great research
Publications	Publications
Tenure	PhD
Getting grants	Getting funding
Fame and fortune	A great job
Great students	Great recommendations
•••	•••

- It is terrific (in my opinion) to work with students as much as possible as equals and colleagues
- However, don't buy your own bullshit about this! Why?
  - □ It's not entirely true see differences on previous slide
  - The students *know* it's not entirely true you write letters, you help build their connections, etc.
  - No matter how you want it to be, it's fundamentally a power relationship (maybe this is more about advising than mentoring, but it surely holds if you are both adviser and mentor to a student) don't abuse it but don't forget it's real

- Mentoring and advising is hard, fun, and extremely rewarding
- Your de mentor, but they will do de work so don't forget dat!

