

Do's and Do-over's: Reflections on Life as an Early Career Researcher

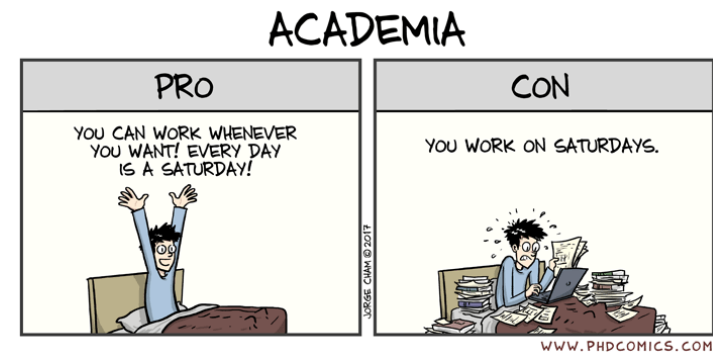
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My Academic Path

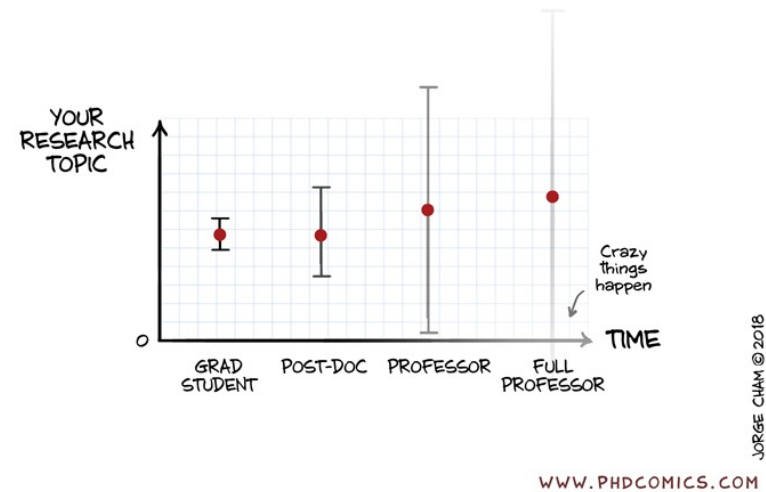


- B.E. Electrical Engineering, VJTI, Mumbai
- M.S. + Ph.D. Electrical and Computer Engineering, Drexel University, Philadelphia, USA
- School of Computer Science and Engineering, UNSW Sydney, Australia
 - Lecturer
 - Senior Lecturer
 - Associate Professor
 - Professor



Research Portfolio

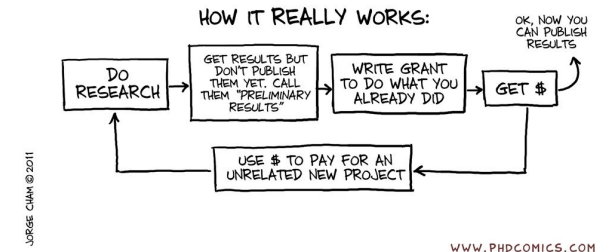
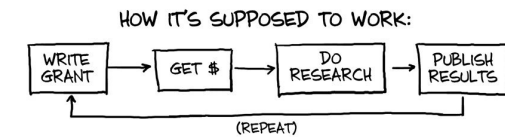
- Keep on top of the latest developments
 - Read a lot of papers from the top venues
 - Science blogs, LinkedIn, socials, ...
- Try to find topical problems where you can demonstrate strong contributions and can make a name for yourself
- Don't spread yourself thin, consolidate and focus on a 1-2 areas
- Focus on impactful research
- Identify avenues for commercialisation or industry/government adoption
- Build on your track record but don't be afraid to venture into new topics
 - side-step/shift over longer time scales



Research Funding

- Target different schemes
- Even small grants matter
- Team up but ensure complementarity
 - track record of the CIs is often critical
- Explore industry links (e.g., 1:1 leveraged schemes)
- Read all rules and regulations
- Get feedback on drafts from senior colleagues
- Network and get your name/research out in the community
- Persevere

THE GRANT CYCLE



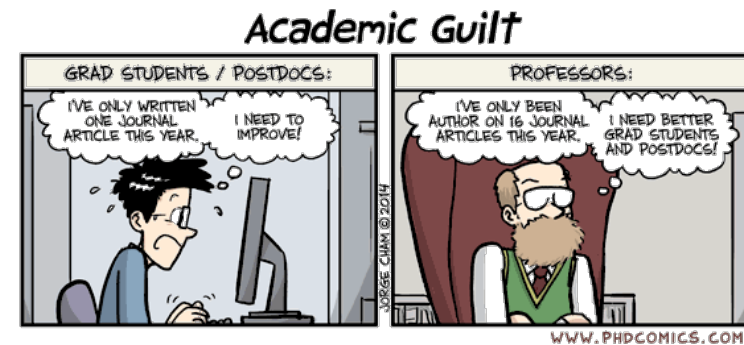
Find good mentors and collaborators

- Within your direct group/discipline and outside
- Use them as a sounding board
- Monthly follow-ups, maintain notes, plan ahead
- Collaboration network
 - Senior academics
 - Peers
 - Early/mid career researchers
 - Students



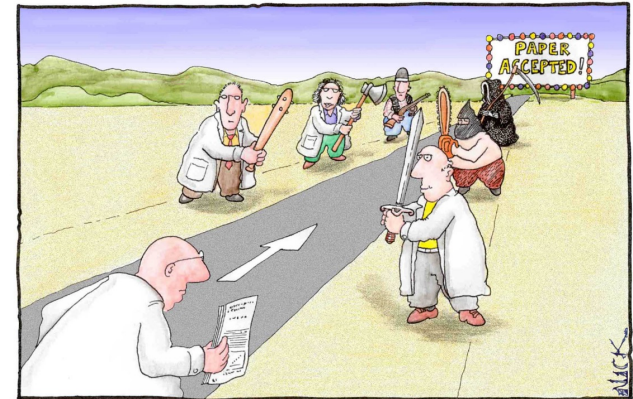
Students (+Postdocs)

- Your most important assets
- Work with students at different levels
 - Undergraduates
 - Masters
 - PhD
- Divide up larger projects into smaller components
 - Sum is greater than parts
- Advertise projects widely (internal, external)
- Encourage students to write publications
- Adapt to their personality/working style
- Group activities
 - Talks, group meetings, socialising, team building,
- Involve senior students in helping with reviews, assistance with grant applications, ..
- Send students to conferences, events/competitions,...



Publications

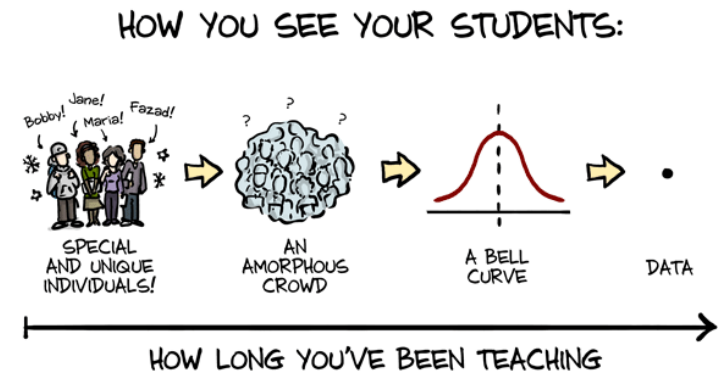
- Quality not quantity
- Identify top venues in the discipline
- Read many papers from these venues
- Try to learn what it takes to get a paper into these venues
- Form the right team, complimentary skills
- Start early, introduction is critical, readability matters, thoroughness of evaluations,
- If possible, attend some of top conferences (e.g., workshop, poster)
- Get on conference TPCs and review articles for journals
- Persevere, rejections are common



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

Teaching

- Critical part of an academic role
- Can take up substantial time
- Manage the time you invest into it
- Negotiate for reduced teaching load when you start
- Take ownership of 1/2/3 courses
- When possible, explore synergies between research/teaching
- Nurture a cohort of excellent support staff (TAs)
- Be on the lookout for good students who can contribute to your group
- Be patient, kind, responsive, fair
- Seek feedback, reflect, and improve

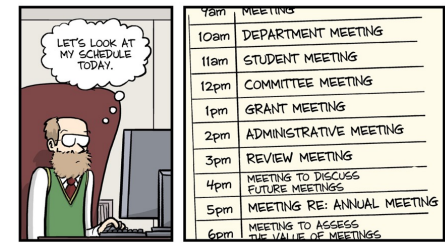


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Admin

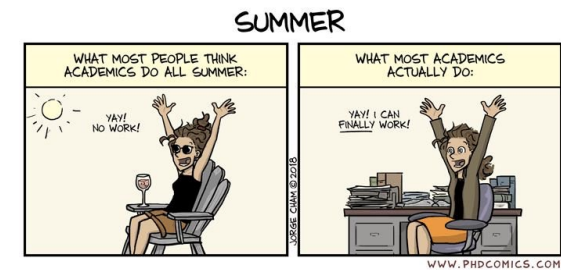
- Various forms: University, National, International ...
- University roles
 - admin roles, committees, accreditation, thesis examination,...
 - necessary but time consuming
- Volunteer for conference OC roles
- Reviews: conference TPCs, journal papers, grant applications
- Never volunteer and not deliver
- Be strategic
- A Day only has 24 hours !! A Week only has 7 days !!



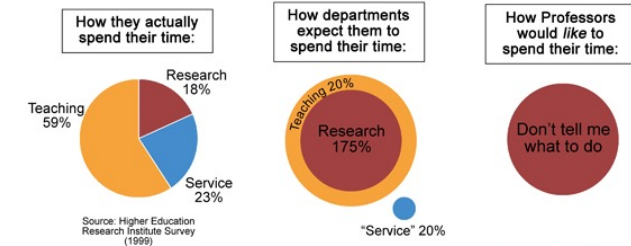
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Balance ...

- Prioritise, Prioritise, Prioritise,
- Deadlines for key grant applications, conferences, exams, ... are known in advance
- Learn to say NO
- Plan at different time-scales: year, term, month, week, day ...
- Try scheduling a block of time every week that is meeting free
- Use the non-teaching period wisely
- Exploit Teaching-Research synergies

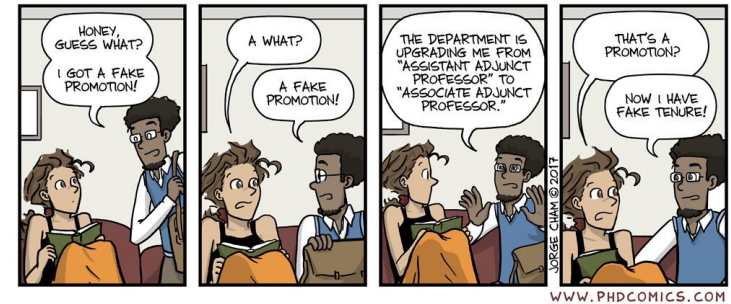


HOW PROFESSORS SPEND THEIR TIME



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Career development



- Careful planning for academic progression/tenure
 - Every institute has KPIs
 - Seek advise from your mentors
 - Plan, plan, plan
- Skill development workshops
 - Leadership, speaking, writing, teaching, management, ..
- Apply for fellowships/awards/ECR opportunities
- Explore possibility of research visits through sabbaticals
 - Funded programs exist (e.g., Humboldt Foundation, JSPS,...)
- Reflect on how you are progressing

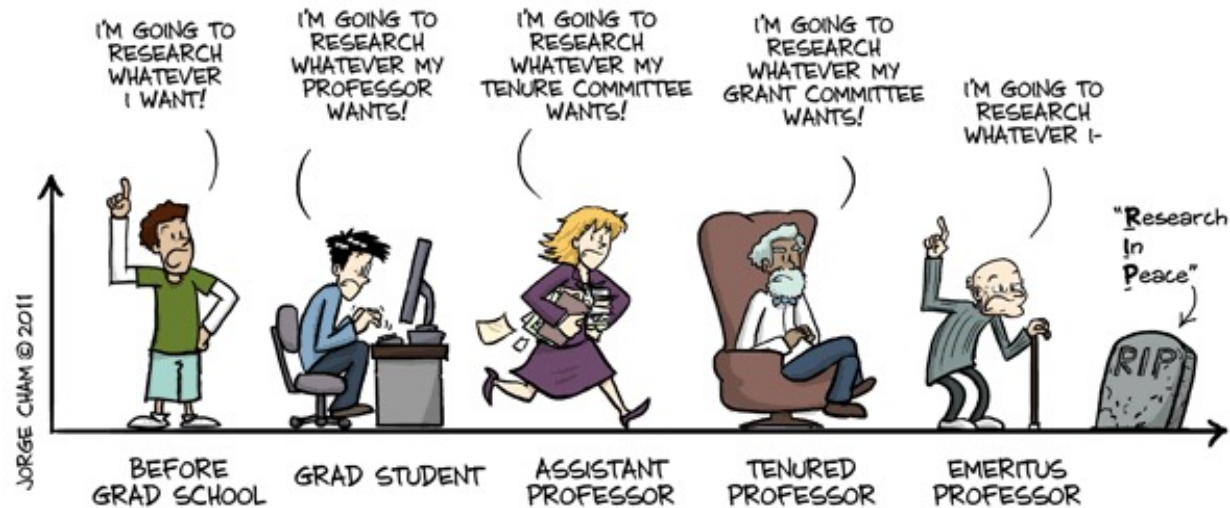
Final words

- Academia is challenging and requires us to do many things
- Requires a little bit of self-promotion/marketing
- Mingle/network/communicate
- Be kind to students, colleagues, ...
- Look after yourself
- Work/life balance
- Find a hobby/activity outside work
- It's fun, I would not do anything else !!



Questions?

THE EVOLUTION OF INTELLECTUAL FREEDOM



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