Actionable Strategies for PhD Students and Postdoctoral Researchers

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Actionable Strategies for PhD Students and Postdoctoral Researchers

- 1. Presentation
- 2. Connection
- 3. Reputation









Actionable Strategies for PhD Students and Postdoctoral Researchers

1. Presentation

- Curriculum Vitae: Form and Content
- Building an Online Presence









Curriculum Vitae: Form and Content

Form:

Many formats are possible; many examples found <u>online</u>. Keep formatting simple and avoid overly designed templates.

Content:

- **Contact Information:** full name, affiliation, email, phone number, and academic website. Also, including your ORCID, Google Scholar page, and/or LinkedIn page is a good idea.
- Research Interests or Academic Profile: A short section summarizing your key research areas, academic focus, and career aspirations.
- **Education:** List degrees in reverse chronological order, including institution, department, and year of completion or expected completion date.
- Research Experience: Include a brief description of your theses or research projects, their significance, methods, and outcomes. Mention your (co-)advisors. If you have contributed to the research of others, mention those.
- Publications: List journal articles, book chapters, conference papers, and other scholarly works in reverse chronological order. Give details.
 Include submitted papers.







Curriculum Vitae: Content

- Teaching Experience: List the courses in which you've have been involved, as instructor, tutor, assistant, etc. Give name, level, and year of the course; any mentoring of students.
- Grants, Fellowships, and Awards
- Service and Leadership: committee work, administrative roles, or involvement in organizing events, reviewer for journals; any involvement in public engagement with science, community outreach, or mentoring students.
- **Professional Development:** Trainings, certifications, specialized courses, summer schools, (online) conferences, workshops, etc.
- Skills and Expertise:

 Technical Skills: laboratory techniques, programming languages, simulation packages, statistical analysis software.
 Languages: Mention any language proficiency you have.
 Extracurricular activities: Hobbies, interests, or personal activities
- **References:** List 2–3 academic references (typically your MSc/PhD supervisors, postdoc PI, or other senior colleagues), with their title, institution, email, and phone number. Ensure they are aware that you've listed them as references.
 - Tailor Your CV to the Job/Position

Publications:

- Writing is a skill that you have to learn;
 the more you write, the easier it will get.
- Start writing as early as possible; that is, as soon as you start your MSc/PhD research; you must not wait until you have results. As soon as your research is defined, you can write about your experimental setup or your numerical work. These writings will be part of your thesis or paper.
- Usually, one starts with reading the literature about the research subject; that is also the information that has to go into the Introduction of your thesis and/or any paper you write.
 You should consider writing a review paper.
- For a review paper, you don't need to do your own original research; review papers usually get a large number of citations.
 Not easy to write a good review paper.









Teaching Experience:

- Find a course that you like and talk to the instructor and offer to help as tutor, correcting homework assignments, doing exercise hours, helping with lab hours, helping with field work, etc.
- As a PhD student or postdoc, define a MSc research topic and try to find MSc students who would be interested to do that research; that will help your own research, but also you will become a mentor.









- Grants, Fellowships, and Awards
- Find sources of grants; there are always agencies (universities, societies, governmental or private) that offer grants to students or young researchers
 - There are many <u>travel grants for students</u> (AGU, InterPore, SIAM, DFG of Germany, EU, ...) Also grants for short/long visits to abroad.
- There are also some more competitive grants and awards; you will never get them, no matter how good you are, if you are not nominated!









- Service and Leadership:
- Volunteer to organize (bi)weekly or monthly seminars for your Group or Department; also good for connections
- Volunteer to help with publishing your Group or Department Newsletter
- Volunteer to be in charge of your Group's website
- Volunteer to help organize a summer course or short course
- Write to relevant journals and sign up as reviewer; tell your supervisor that if she/he agrees to do review for a journal, you are willing to help (they would appreciate it)
- Volunteer with professional societies to help in various ways (e.g., InterPore has a Student Affairs Comm., SPE has student chapters; InterPore has a national chapter), help with their website, help

with various committees, etc.





- Professional Development:
- Trainings, certifications, specialized courses, summer schools, (online) conferences, workshops, etc.
- There are lots of online courses; some are free or low fee. Often you can apply for a fee waiver
- Your Department may have a conference budget for students
- Some societies offer conference grants to students; make use of them if possible.









Skills and Expertise:

Technical Skills: laboratory techniques, programming languages, simulation packages, statistical analysis software.

Languages: Mention any language proficiency you have.

Extracurricular activities: Hobbies, interests, or personal activities (indication of personality?)

Be eager to learn additional languages, techniques, software









Building an Online Presence

- Develop a personal website highlighting your expertise, projects, research, activities.
 - Have it hosted on the website of your Department or one of the many hosting sites.
 - Spend some effort on making an attractive and informative website.
- Construct pages on ResearchGate and Google Scholar
- Showcase your work in various other venues (e.g. newsletters of some societies, e.g. InterPore)
- Leverage social media

Among various social media platforms, *LinkedIn* can be a powerful tool for to increase your online presence, build your professional network, and showcase your academic achievements.

Ldiscuss that in detail.







1. Create a Strong Profile

Professional Headline: It should be clear and specific, reflecting your current role or research focus. For example, "PhD Candidate in Environmental Engineering; Specializing in Sustainable Water Management."

Profile Picture: Use a high-quality, professional-looking photo. It should reflect your academic or professional demeanor.

Customized URL: Customize your LinkedIn URL to make it easier to share (e.g., linkedin.com/in/yourname).

Summary: Write a concise summary that highlights your research interests, academic achievements, and career goals. This is your chance to tell your story and make a strong first impression.









2. Showcase Your Research and Achievements

Experience Section: Include your current academic position (PhD student, postdoc, etc.) and previous roles related to research. Provide descriptions that outline your key responsibilities and accomplishments.

Projects and Publications: Use LinkedIn's "Projects" section to showcase your research projects. If you have publications, presentations, conference posters, datasets, or videos where applicable, include them in the "Publications" section with relevant links. This provides tangible evidence of your work.

Skills and Endorsements: Add relevant skills such as "Data Analysis," "Qualitative Research," "Lab Techniques," or specific software tools like "MATLAB" or "Python." Request endorsements from colleagues, advisors, or collaborators.









3. Connect with the Research Community

Send personalized connection requests to researchers in your field. Always add a short, thoughtful note when sending a request, especially if you don't know the person well.

Follow academic institutions and societies: This helps you stay informed about their updates and can increase your chances of being seen by key figures in the field.

Join relevant LinkedIn groups: Many academic and research-focused groups exist on LinkedIn. Join groups relevant to your discipline, and engage in discussions to build connections and showcase your expertise.









4. Engage with Content

Share your work: Regularly post updates about your research, milestones, or events like conferences or workshops you're attending. **Sharing** others' articles, insights, or blog posts related to your field can also position you as an engaged member of the research community.

Comment on others' posts: Thoughtful comments on peers' work or industry updates can help you build visibility and credibility.

Write LinkedIn articles about your research interests, insights from your studies, or trends in your field. This can demonstrate thought leadership. These articles are shareable and can be seen by a broader audience.

Re-share industry news and academic updates, adding your own commentary to provide context or your perspective.









5. Seek and Provide Recommendations

Request recommendations: Ask your advisors, colleagues, or collaborators to write recommendations that highlight your skills, work ethic, and contributions to your research.

Recommendations can add credibility to your profile.

Provide recommendations: Writing recommendations for peers or colleagues can help you build stronger relationships and may encourage them to return the favor.









6. Optimize for Searchability

Use relevant keywords: Make sure your profile includes keywords that are commonly used in your research area, as this will help your profile appear in search results.

List all relevant skills: Skills are searchable on LinkedIn, so including a comprehensive list can help recruiters, collaborators, or research institutions find you based on the skills they're looking for.

7. Follow Funding Agencies and Journals

Follow research funding bodies, such as NSFs or private foundations. They often post funding opportunities, and you'll also get insights into the types of projects they support.

Follow academic journals









8. Highlight Your Soft Skills

While technical and research skills are critical, soft skills like communication, teamwork, and problem-solving are also important in academia and industry. Be sure to highlight any leadership roles, teaching experience, or collaborative projects in your profile.

9. Leverage LinkedIn for Job and Fellowship Searches

Use LinkedIn's job search function to explore academic, research, and postdoctoral opportunities. Set up job alerts tailored to your specific research interests or career aspirations.

10. Monitor Your Analytics

They show who is viewing your profile, which companies or institutions they are from, and what keywords are leading them to your profile. Use this information to adjust your profile to increase its reach and appeal.





Actionable Strategies for PhD Students and Postdoctoral Researchers

2. Connection

- Having connections in your academic life is like having friends in your private life!
- It is crucial for early-career researchers to gain opportunities, foster collaborations, advance their careers, and stay informed and supported in their professional journey.
- How to build up a (strong) network of connections









1. Collaboration Opportunities

Research often thrives on collaboration. By building a network, early-career researchers can connect with other experts in their field or complementary fields, opening doors for joint projects, coauthorship on papers, or access to resources like labs and datasets that they might not have on their own.

2. Access to Knowledge and Expertise

Connections with more experienced researchers can provide guidance, mentorship, and insights into the latest trends and advancements. This can help early-career researchers stay current and informed about best practices, methodologies, and cuttingedge developments in their area of study.









3. Career Advancement

Networking can lead to job opportunities, postdoctoral positions, fellowships, and funding opportunities. Many positions in academia and research are never advertised publicly but are filled through personal connections and recommendations. Having strong relationships with established professionals in your field increases the chances of learning about these opportunities.

4. Visibility and Reputation

Connecting with others in the academic community allows early-career researchers to increase their visibility. Attending conferences, engaging in online discussions, or co-authoring papers helps build a personal reputation. Being recognized by peers can lead to invitations to speak at events, review articles, or even contribute to prestigious journals.









5. Support and Feedback

The research journey can be challenging. Having a network of peers and mentors allows early-career researchers to receive critical feedback on their work, which can improve the quality of their research. Moreover, a network provides emotional and professional support, helping them navigate challenges, rejections, and setbacks more effectively.

6. Funding and Grants

Connections can be crucial when seeking funding. Many funding bodies and grant committees value collaborations between established and early-career researchers. Having strong connections can increase the likelihood of securing joint grants or participating in larger, funded research initiatives.









7. Interdisciplinary Opportunities

Many groundbreaking research advances come from interdisciplinary work. By networking with people in related or even distant fields, early-career researchers can explore new perspectives and approaches, leading to innovation and potentially impactful discoveries.

8. Learning the Unwritten Rules of Academia

Networking allows early-career researchers to learn the nuances of academic culture, such as how to navigate publishing, applying for grants, or succeeding in tenure-track positions. Informal advice from peers and mentors can be invaluable in learning these "unwritten rules" of the profession.









Building a network of connections requires a combination of strategic engagement, visibility, and proactive outreach.

1. Attend Conferences and Workshops

Present your work: One of the best ways to make connections is by presenting at conferences, seminars, or workshops. This gives others in your field an opportunity to see your work and approach you for discussions.

Participate in discussions: Attend sessions, ask questions, and engage with speakers. This is a great way to introduce yourself to senior researchers or peers with similar interests.

Network during social events: Most academic conferences have social events like dinners or poster sessions. Take advantage of these more informal settings to meet other researchers.









2. Engage with Online Communities

Academic social media platforms: Join academic social networks like ResearchGate, Academia.edu, or Mendeley to connect with researchers in your field. This allows you to share your work, follow influential researchers, and engage in academic discussions.

Twitter and LinkedIn: Twitter is widely used in academia for sharing research updates and networking. Following key figures, engaging in discussions, and sharing relevant research can increase your visibility. LinkedIn is also a useful platform for professional connections, especially in broader interdisciplinary contexts.

Webinars and virtual conferences: In the age of digital communication, many conferences and webinars take place online. These provide opportunities to network without geographical limitations.









3. Join Academic Societies and Professional Organizations

- Becoming a member of relevant academic societies can help you stay informed about upcoming conferences, grants, and job opportunities. These societies often have mailing lists, discussion forums, and local chapters where you can meet others in your field.
- Participate in committee work or volunteer roles within these societies to increase your visibility and develop relationships with others in your field.









4. Collaborate with Peers and Senior Researchers

- **Start small:** Begin by collaborating with peers from your department or institution. Joint research projects, co-authoring papers, or working on grant proposals together can help establish a track record of collaboration.
- Reach out to experts: If a senior researcher or expert's work resonates with yours, don't hesitate to reach out. Send them a thoughtful email expressing your interest in their work, and mention how it connects with your own research. This could lead to further dialogue or even a future collaboration.
- **Engage with visiting scholars:** If your institution hosts guest lectures or visiting researchers, take the opportunity to introduce yourself and engage with them during their stay.









5. Seek Out Mentors

- Building relationships with mentors, both within and outside your institution, is invaluable. A mentor can provide you with guidance, feedback on your work, and introduce you to their own network.
- **Be open to informal mentorship:** Not all mentorships need to be formal. Simply building a rapport with senior colleagues, postdocs, or more experienced researchers can lead to ongoing mentorship and advice.









6. Publish and Share Your Work

- Publish in (reputable) journals: Publishing quality research helps raise your profile and makes it easier for others to recognize your work. Publishing in collaborative, interdisciplinary journals can expose your research to a wider audience.
- Share your research: Use online platforms like ResearchGate, SSRN, or institutional repositories to share your research papers. Blogging about your research or writing accessible summaries can also help reach a broader audience.









- 7. Attend and Organize Seminars/Workshops
- Local opportunities: Attend departmental or local seminars
 where researchers present their work. Engaging with local
 scholars can create meaningful connections, as there are more
 opportunities to have in-depth discussions.
- Organize events: Take the initiative to organize small workshops, seminars, or reading groups within your department or field. This can provide a platform to connect with others and demonstrate your leadership in the academic community.









8. Proactively Follow Up

- After meeting someone at a conference, seminar, or workshop, follow up with a personalized email to express your appreciation for the conversation or their work. Following up is key to transforming a brief introduction into a meaningful professional connection.
- You can also stay in touch by occasionally sharing updates about your research or responding to their recent work or achievements.









9. Collaborate Outside Your Field

 Interdisciplinary research is increasingly important. Engage with researchers from different but complementary disciplines to broaden your network. This might lead to innovative collaborations and open up new opportunities for research and funding.

10. Be Patient and Consistent

 Building a network takes time. Consistently attending events, sharing your work, and maintaining relationships is crucial. It's not about collecting as many contacts as possible, but about nurturing meaningful, mutually beneficial relationships over time.









Actionable Strategies for PhD Students and Postdoctoral Researchers

3. Reputation

 You must strive to build a strong reputation as an early-career researcher, especially in terms of being dependable, responsive, and fulfilling commitments









1. Be a Reliable Collaborator

Timely responses: Respond to emails and inquiries from colleagues, collaborators, and supervisors promptly. Even a short acknowledgment can show your professionalism.

Meet deadlines: Consistently meet deadlines for joint projects, manuscripts, or commitments. If you need extra time, communicate early to set expectations.

Take ownership: If you're part of a project, take responsibility for your tasks and ensure high-quality work, making it easier for others to rely on you.









2. Fulfill Commitments

Don't overpromise: Be realistic when accepting new responsibilities, whether they involve research, teaching, or committee work. *Underpromising* and *overdelivering* build trust.

Prioritize follow-through: When you commit to writing a recommendation, reviewing a paper, or submitting a chapter, ensure you follow through, even if it requires extra effort.

Seek feedback: Regularly check in with your collaborators or supervisors to ensure that your work aligns with their expectations, demonstrating your commitment to quality.









3. Help Others and Be Generous

Mentor junior colleagues: Providing guidance to MSc students, PhD students, or postdocs they ask for advice is a great way to build a reputation for being supportive and approachable.

Be generous with your time: Offer to help review drafts, provide feedback on presentations, or share your expertise, even when it's not directly tied to your own work.

Share resources: If you come across useful papers, tools, or contacts, sharing them with colleagues can help you establish yourself as a valuable resource.









4. Communicate Effectively

Be clear and concise: When communicating via email or in meetings, be clear about your needs and expectations. This reduces misunderstandings and demonstrates professionalism. Document important decisions: After meetings with supervisors or colleagues, follow up with a summary email, highlighting key decisions and action points to ensure everyone is on the same page.

Open channels of communication: Keep your collaborators or peers informed of any delays, challenges, or progress on projects to build trust and reliability.









5. Engage Actively in the Academic Community

Be responsive at events: During conferences, meetings, or seminars, engage thoughtfully with speakers, offer constructive questions, and be visible as someone who actively participates.

Volunteer: Offer to take on small roles in organizing conferences, managing workshops, or leading discussions. Your willingness to contribute to the academic community is noticed and appreciated.

6. Demonstrate Professionalism in Peer Review

Offer timely reviews: If you're asked to review a paper and you accept, provide thoughtful and thorough feedback by the given deadline. This helps build your reputation as a trusted expert.

Be fair and constructive: Even when critical, offering constructive feedback to authors helps you gain a reputation for fairness and generosity in peer review.







7. Build Trust Through Consistency

Consistency in work quality: Whether in research outputs, teaching, or collaborative projects, being consistent in the quality of your work over time helps establish you as a dependable colleague.

Be dependable in meetings: If you say you'll attend a meeting, do so. Being someone who shows up and contributes reliably is important for building long-term relationships.









Summary

- Present yourself effectively, showing your strong and valuable points that you develop over years.
- Presentation is done via CV and using online platforms and venues
- Create a large network of collaborators and professional colleagues.
- Maintain your integrity and follow through on commitments.







