Mid-Career Reflections: Climbing the Academic Ladder Without a Safety Net

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As I supposed everyone else did when asked by Tamer to write an article with Advice to Mid-Career Researchers, I read all the previous articles in this series to understand what this paper should be about. SIGMOD Record is one of my favorite database readings; it is full of useful information, particularly the influential papers and the database theory column. However, I must recognize that I had not previously read these articles with advice for mid-career researchers, probably because I stopped being in that group some time ago. I regret not having done so, as there are many excellent recommendations not only for mid-career researchers but also, in many cases, for those further along in their careers dealing with various stressful issues. I even considered citing some of these articles here, but I think that might have been too much.

While thinking about my article and the kind of recommendations I could give to mid-career researchers, I also found myself reflecting on what could be different in my research career from what I read in the other articles in this series. I completed my Ph.D. at the University of Toronto and then immediately moved to Chile. Thus, I have spent my entire academic career in Chile, which differs significantly in a fundamental aspect from the U.S. and Canadian academic systems: there is no tenure. In Chile, we have an academic system with three categories: assistant, associate, and full professor. The timeline for becoming an associate professor after being hired as an assistant professor is similar to that in the U.S. and Canada. However, the main difference is that you continue to be evaluated in the same way throughout your entire career, and you could be fired as an associate or full professor. I understand this is possible in the U.S. and Canadian academic systems, but typically only under extraordinary circumstances. To the best of my knowledge, this same reality applies to other Latin American universities, where no tenure system exists.

Of course, becoming an associate professor is a big deal in Chile and the rest of Latin America. It means you have the necessary recognition in your area and are a mature, independent researcher. Additionally, it brings labor stability, as you do not have a fixed timeline in which you must seek further promotion. However, the component that is missing—and which I envy from reading the previous articles with advice for mid-career researchers—is the assurance that, after being promoted to associate professor, you can pursue ambitious goals with the protection of tenure. With that in mind, I aim to offer in this article some reflections and practical advice for those navigating mid-career, as well as to explain why I still consider academia the best job in the world.

Embrace lifelong learning.

I enjoy learning. I relish attending courses, tutorials, and talks where I can deepen my knowledge in an area, acquire new techniques, or explore unfamiliar fields. I am truly grateful that learning is part of my job—that I am expected to dedicate part of my schedule to reading and studying. As you advance in your career, it becomes

more challenging to find time for this, especially given the many responsibilities that come with seniority. But if I ever had to stop learning, I would have quit this job, as I believe an academic should never lose sight of this priority.

To maintain this commitment, I have chosen to block off parts of my schedule exclusively for study, free from email and the various apps that so often interrupt us today. Sometimes, it may feel like you are wasting time, as you are spending hours learning a new theory when other tasks seem more pressing. However, I am convinced this effort is worthwhile, even if what you are learning is not directly applicable to your current work. The more tools you have, the more you can accomplish. So do not hesitate to explore adjacent fields or emerging technologies—they often inspire innovative approaches and broaden your research scope.

Value theory and practice.

Most of my work is theoretical in nature. In fact, at one point during my undergraduate studies, I was determined to switch from computer engineering to mathematics, as I initially thought computer science was only about programming and implementing algorithms. Then I took the course Logic for Computer Science, where I encountered a first proof that a problem could be undecidable. This was mind-blowing—the idea that the concept of an algorithm could be formalized as a mathematical object and that such an impossibility result could be proven. I later learned that there is also a rich theory behind the design and analysis of algorithms, filled with beautiful ideas. As I have gained more experience, I have also come to appreciate the unique challenges involved in implementing an algorithm effectively.

I am convinced that a combination of theory and practice is essential. As you advance in your academic career, I believe it is worth asking yourself: What is the practical impact of my research? This practical impact can manifest in many ways and does not need to be immediate, but I think it is wise to keep an eye on the potential applications of your work.

Prepare to apply for large-scale grants.

If you are an associate professor, you have certainly demonstrated an ability to secure funding for your research. However, at least in Chile, the type of funding typically available before reaching the associate professor level consists of personal grants that support research with a small team, a few students, and perhaps a co-investigator. As you progress in your academic career, though, there is an expectation to apply for larger grants.

A natural question is: why should you pursue this? There is no single answer. I know professors with successful careers who have never applied for large-scale grants. On the other hand, securing such grants allows you not only to fund a larger team but also to tackle more complex problems and pursue ambitious goals.

One useful exercise I have learned is to ask yourself, "What would I do if I received $10 million for my research today?" (or whatever amount would be considered substantial in your field). At a certain point in my career, my answer to this was not entirely clear; it was along the lines of hiring more students and researchers to continue our current investigations. But, obviously, this is not a satisfactory answer. Engaging in this exercise encourages you to think about challenging problems and long-term goals, and how to build a team capable of addressing these effectively.

Establish a collaboration network.

I do not need to convince anyone that collaboration is fundamental to conducting research. It not only brings together diverse expertise and capabilities to solve a problem but also enables the testing of ideas, learning new tools and techniques, and discovering new challenging problems. Building your own research group, in particular, is a rewarding step.

While there is broad consensus on the importance of collaboration, I would like to share a small insight from my Ph.D. experience that I have tried to implement in the groups where I have worked. My Ph.D. supervisor had a rule: each student had to produce a paper with other Ph.D. students, without the supervisor's involvement, to demonstrate the ability to conduct independent research.

I had to follow this rule and found it very rewarding, as I co-published a paper in SIGMOD with my office mate. Though I do not impose this rule here, I strongly encourage collaboration among students. It is essential for them to be part of a stimulating group where they can discuss their work and learn from each other.

Work closely with your students and promote them.

I was the first Ph.D. student of my supervisor, who was then a new faculty member at the University of Toronto. I was fortunate to have the opportunity to spend many hours with him, knowing that he understood my work very well. As you progress in your career and your group grows, you obviously will not have that much time to spend with each student. However, I believe it is essential to work closely with them, which means having weekly meetings, carefully reviewing their work, defining concrete problems to solve with them, and, above all, understanding what they are doing. I have seen students who must explain to their supervisor what they are working on every time they meet, which can be very frustrating. Of course, it is also important to give your students the freedom to pursue their ideas and to allow yourself time to understand and review those ideas.

Lastly, I would add that promoting your students is crucial. For example, I have learned how essential recommendation letters are for a student's career. Craft letters that genuinely highlight their strengths and potential, especially for students you know well. Take the time to detail their achievements and qualities in a way that leaves a lasting impression on potential employers or institutions, reflecting your support and belief in their capabilities.

Conclusion.

In a mid-career stage, without the formal protection of tenure, it is crucial to balance ambition with stability, and independence with collaboration. From building a research team to pursuing transformative grants, mid-career is a time to both consolidate past achievements and prepare for future challenges. The insights I have shared here are not only for navigating mid-career challenges; they serve as reminders of why our work is fulfilling. Embrace these years fully—they offer an opportunity to deepen your impact, enjoy the freedom of established expertise, and guide the next generation of researchers toward building a better future.