

Team-based PhDs would address the isolation caused by current doctoral programmes and improve the efficiency, quality and impact of research



*Most PhD students think of their doctorate as a lone undertaking. This may be why a high proportion leave graduate school without finishing, and has also been identified as a contributing factor to the mental health problems experienced by many PhD students. **Julian Kirchherr** argues that tackling the PhD as a team project would be more beneficial. The team would permanently support, but also challenge, the student, boosting the efficiency, quality, and impact of the work. Such a move would represent a long overdue disruption of the current PhD model, and a necessary departure from the isolating culture that is proving detrimental to so many students.*

My friend Tim's PhD had been four years in the making when he finally dropped out. His decision followed a meeting with his supervisor which was the culmination of almost six months of work preparing a further draft chapter of his thesis. Tim, a well-known social butterfly during his undergraduate studies, had spent these six months in crippling isolation. Although we lived in the same town back then, I had seen him maybe twice over that period. During the meeting, Tim learnt that his supervisor did not approve of the general direction of his work. "He completely trashed what I had produced. And I just had no energy left to go on."

[50% of PhD students](#) eventually leave graduate school without finishing, with numbers higher at some institutions. Those who do manage to finish are usually [well into their 30s](#) upon graduation. Meanwhile, approximately [one third of PhD students](#) are at risk of having or developing a common psychiatric disorder like depression throughout their studies. [Research](#) suggests the idea scholars are always, at root, alone is a main cause for the latter finding. Indeed, the PhD is usually understood as a lone undertaking (with sporadic input from the supervisor). This solitude can be overwhelming for the young scholar undertaking independent research for the very first time.

Those who come from the private sector find the all-alone set-up of most PhDs [anachronistic](#). The average PhD supervisor demands the most polished work possible, while providing only minimal guidance. Meanwhile, [your manager at Google](#) requires a dirty draft from you as quickly as possible, and will then work together with you for hours every day to help you further shape it. I want us to reimagine a PhD that is closer to that project at Google; a PhD that rests on the conviction that none of us individually is as smart as all of us together; where only teamwork wins championships.

The PhD student is the project manager of this PhD and assembles a powerful team around them. This team permanently supports, but also challenges the student, boosting the efficiency, quality, and impact of the work. The initial team of the PhD project consists of the PhD student and the supervisor. Whenever possible, practitioners are also added to this project, providing input and co-creating the content of the doctorate. Creating this team is the responsibility of the PhD student (and the team can vary from paper project to paper project), whereas the supervisor may provide valuable guidance on the composition of the team and on how to best recruit its members.

This [team-based PhD](#) also involves undergraduate students. We tend to maintain the narrative in academia that obtaining a PhD is extremely challenging. While cultivating this narrative, we tend to forget that not all tasks related to a PhD are challenging. Indeed, a variety of typical PhD tasks – from conducting a literature review to transcribing interviews (needed for qualitative PhDs) – are rather simple and can thus easily be completed by undergraduate students.

For instance, my research examines [the socio-economic impacts of hydropower dam construction](#) and throughout my PhD studies I worked closely with undergraduate students who shared my fascination with this topic. They helped me with simple tasks, but I also involved them as much as possible with more complex ones. For instance, one of the students I worked with even developed – under my guidance – a financial model of a hydropower project which we eventually published together in a peer-reviewed journal. This paper has been [cited 19 times](#) in the intervening two years.

I emailed students enrolled in the courses I had been teaching to advertise that I was looking for people to join my PhD team. Those who wrote back were the ones most enthusiastic about research in my specific topic areas. Of those who reached out to offer their time, I chose only a few – the ones in subsequent conversations most convinced me that their participation on my PhD team would really be a win-win-collaboration, adding value to my research but also benefitting their development too.

Academia can be a team sport, and, admittedly, academia has become more collaborative over the years. The first issue of the German academic journal *Der Naturforscher*, published in 1774, [featured only single-authored works](#). By 1900, about seven per cent of papers in biology, chemistry, and physics had co-authors, and the time of teamwork had begun. Today, almost [all articles in the natural sciences](#) are co-authored and [even 30 per cent of works](#) published the humanities feature more than one author.

Admittedly, teamwork also bears risks for early-career scholars. Too many established professors call for teamwork to freeride on the work of their PhD students. They provide obscure input only months after the PhD student has sent them their draft. This is [the academic snowball system](#) at its worst. Luckily, some journals such as *PLoS ONE* now specifically outline [authorship criteria](#) and demand those submitting to detail the exact contributions of each listed author. Many more comparable initiatives will be needed to ensure the functioning of the team-based PhD.

It is long overdue that we disrupt the current PhD system to make it better for early-career researchers. We need to move away from the “I must do it all alone” culture in which so many PhD students drown. Isaac Newton famously said: “If I have seen further, it is by standing on the shoulders of giants”. Indeed, the single researcher can do so little, while together we can do so much. Reminding ourselves of this may help to fix the broken PhD enterprise.

Note: This article gives the views of the author, and not the position of the LSE Impact Blog, nor of the London School of Economics. Please review our [comments policy](#) if you have any concerns on posting a comment below.

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