

Scenario 5 - The Case of the Impact Email

You're still gauging the distance between your new apartment and the library, so today you've arrived a bit earlier than usual.

Before anyone else is here, actually. Your augment interfaces with the local network to grant you entry through the powered-down security doors, then shows you how to get the lights on. Afterward, you sleepily make yourself coffee in the staff lounge, then go to your office to rummage through your emails. (There are already more than you care to think about answering.)

As you expected, there's more of the usual: ads from vendors, routine announcements that went out to the entire campus, invitations to submit papers, and so on. You sort them into folders with your augment's neural network powered assistance quickly enough, then look through what's left.

One catches your eye, from a faculty member in the physical sciences, who's titled the email "Need help submitting an article."

Definitely sounds like something you can address. You click through it, and on a quick skim determine that they're a junior faculty member concerned about making tenure, and what they actually want is advice about the best journals to be published in to help with that. You take a few sips of coffee — still steaming — then sit down to read through the email more thoroughly.

This is what it says:

Hello,

I'm in my second year here at Lovelace in the Quantum Cyberpunk department, and I was talking to my mentor the other day about how to get tenure. They said some kind of scary stuff about "publish or perish" and how I'd better make sure I pick the *right* journals to publish in, too. They mentioned "impact factor," but I don't really understand what that is or how to calculate it, and since they also said they knew someone who'd been released rather than promoted because they published in some third-rate predatory journal that took anyone for a fee, I don't want to screw this up.

Our department actually has some guidelines about this, but they're not much clearer:

"Some journals are higher quality than others, and research published in these journals must meet a higher bar for originality, importance, and execution. The department recognizes this, and publications in journals with high impact factor or other measures of prestige will be considered more impressive than those in less well known or less important journals."

I looked up "impact factor," but there are at least three or four different ways to define that, apparently, and our guidelines don't specify which to use.

Do you have any resources you can point me to that will help me figure this stuff out? Or just advice on where I should submit? The article I want to submit is about the effect of strange quarks on quantum vibrations in an augmented reality environment.

Thank you!

Quantum... what?

It's a good thing you don't need to understand someone's research to help them navigate the ever-expanding marketplace of scholarly journals.

Scenario 5 Resources

Dorta-González, P., & Dorta-González, M. I. (2013). Comparing journals from different fields of science and social science through a JCR subject categories normalized impact factor. *Scientometrics*, 95, 645-672. <https://arxiv.org/ftp/arxiv/papers/1304/1304.5107.pdf>

Although the bulk of this article by Dorta-González & Dorta-González is taken up with arcane mathematics, its introduction provides a readable and succinct description of how citation differences across disciplines make Journal Impact Factor calculations less useful to some disciplines.

McKiernan, E. C., Schimanski, L. A., Muñoz Nieves, C., Matthias, L., Niles, M. T., & Alperin, J. P. (2019). Meta-Research: Use of the Journal Impact Factor in academic review, promotion, and tenure evaluations. *eLIFE*, 8. <https://doi.org/10.7554/eLife.47338>

McKiernan et al. provide a summary of the history of the Journal Impact Factor (JIF), as well as referencing some of its controversies. Their analysis of a random sample of US and Canadian universities found that many institutions use the JIF to measure publishing success in some way, despite that not being the purpose of the metric.

Welzenbach, R. (n.d.). *Research impact metrics*. University of Michigan Library. Retrieved November 25, 2020, from <https://guides.lib.umich.edu/c.php?g=282982&p=1887442>

This research guide provides excellent explanations of what journal impact factor measures, and what it doesn't, as well as how best to use it to evaluate journals. The "Ranking Journals" section has a page listing other important factors, which can be useful for novice researchers in particular. (Note: links to subscription services in this guide require users to be affiliated with University of Michigan.)