

When a Cupcake Isn't Just a Cupcake: Identifying Qualitative and Quantitative Indicators in Scholarly Publishing



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You walk by Carlo's Bakery in Hoboken, New Jersey. The sweet scent of baked treats greets you at the door, and your mouth automatically begins to water. As a customer, you may have confidence that Buddy Valastro makes excellent cupcakes, but did you know that Buddy has a string of bakeries all over the United States? How can he be sure that each of the bakers he employs to implement his recipes are doing a good enough job to protect his reputation? How do you know that each franchised baker is performing to the expected standard? Presumably, Buddy checks up on those he entrusts his reputation to. Bear with us; there is a reason we're talking about quality assurance concerns for baked goods!

Modern-day authors have a similar plight when attempting to choose a journal in which to publish their work. How do they know which one of the many available is the right fit for their work? How do they judge a journal's ethical and peer-review policies? How do they find journals that will treat them and their manuscript appropriately? After all, it's their work, and it is a vehicle for their scholarly reputation. They have a right to know whether the promised value is being added.

The proliferation of journals—especially in the science, technology, and medical fields—has turned scholarly publishing into an increasingly competitive business fraught with countless technology start-up companies, predatory publishers, and no shortage of social media noise. So what's an author to do?

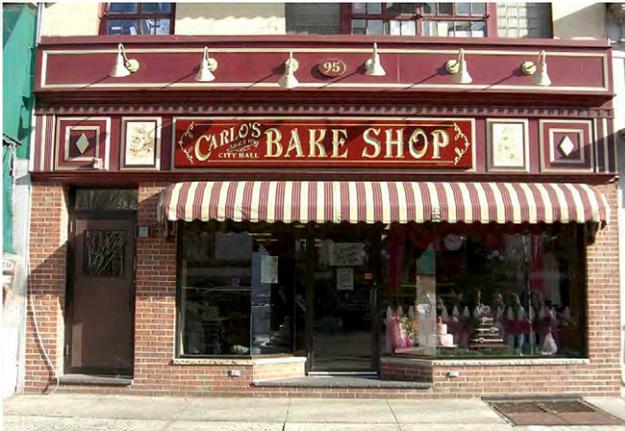
Well, it depends on what they want from the journal. Most authors want (need!) the validation of their work that comes from having their manuscript accepted for publication by high-impact journals. In general, the more competitive and well-known the journal is, the more valuable that validation is and the more useful that line on the CV is with hiring, promotion, and tenure committees. Because higher selectivity usually translates into a higher Impact Factor score, that metric is foremost in most authors' minds, especially in Europe and Asia, where grant funding and career advancement are often closely linked to publication in such journals.

But is that really why authors publish their research? Researchers do what they do out of a desire to expand human knowledge, solve problems, and save lives. They want their work to be published accurately and quickly, with appropriate quality control so that others know that it's good. All too often, they are forced to rely on proxy measures like Impact Factor simply because no direct indicators of publisher or journal service quality exist.

Regardless of their reasons, authors want and deserve a smooth publishing experience. Publishers are communication service providers, and authors want to know how well publishers do in providing the services they offer.

What does this have to do with baking?

Project Cupcake is a new initiative that aims to understand how authors might be provided with useful information to inform their submission decisions. Cupcakers are working to provide frameworks for robust qualitative and quantitative journal-level indicators that illustrate how well publishers serve authors and the scientific community, or how well they're baking their cakes. The frameworks should enable the development of quality of service indicators such as time to decision and publication; quality of editor guidance; journal production values; availability of open access options; extent of article promotion; standards of discoverability and preservation; and editor-in-chief and editorial board reputation. Simply put, we're laying the groundwork for indicators that will help



Carlo's Bake Shop in Hoboken, New Jersey. Photo by Luigi Novi. Accessed October 17, 2017. <https://commons.wikimedia.org/wiki/File:1.20.10Carlo%27sBakeShopByLuigiNovi1.jpg>

authors find answers to these relevant questions prior to submission.

We don't fully know what can be reliably or reasonably measured yet, but questions might include:

- How long do editors take to decide whether a paper is suitable for publication?
 - How long until an article appears in the journal, and will it publish online in advance of print?
 - How many reviewers did the journal consult?
 - Does the journal really conduct peer review?
 - Did the editors synthesize the reviewers' comments into a clear decision?
 - Do the editors provide helpful guidance about how to improve the manuscript for publication?
 - What is the quality of the journal's production values?
 - Is it really copyedited or merely spell-checked?
 - Is the article's layout and design appealing; does it make the article easy to read?
 - Are there word count, citation, and figure/table limitations?
- How much effort does the journal (read: publisher) put into making its articles discoverable by readers?
 - What indexing services does it employ?
 - Does it promote articles in the press, via social media, or among the research community?

The answers to those questions—and many more—influence an author's overall publishing experience and the attention and recognition their article receives. Finding this information is surprisingly challenging. One can find whitelists of journals that adhere to certain publishing principles, such as one offered by [Cabells](#), who also recently launched a blacklist inspired by Beall's list. Indexing services such as [Web of Science](#) and [Scopus](#) serve as *de facto* whitelists of journals with good publishing practices. While knowing a journal is not predatory is useful, few of these lists offer answers to most of the questions authors really care about.

Authors can easily find the Impact Factor of a journal, but they have a hard time finding other (arguably more important) information about the quality of the services the publisher offers them. A few journals publish metrics such as time-to-decision and time-to-publication, but that information is seldom easy to find, and is usually considered proprietary. This often leads to buyer's remorse, in which the author grumbles: 'Why did I submit there? How did I miss the fact that it could take 12 months to get my paper published?' We see you nodding your head!

More than 50 volunteers from across the scholarly publishing ecosystem are currently engaged in six working groups to develop the Project Cupcake indicators that will supplement and enhance scholarly communication metrics as they continue to evolve beyond the Journal Impact Factor.

Though we can't promise authors they'll be the next Cake Boss, we intend to arm them with the tools they need to make smart choices for their manuscript submissions. Stay tuned, and we shall keep you apprised as our work evolves.