

# Stop Limiting Your Audience!

## The Benefits and Challenges of Open Access Publishing

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### Who is Choosing Open Access Publishing And Why?

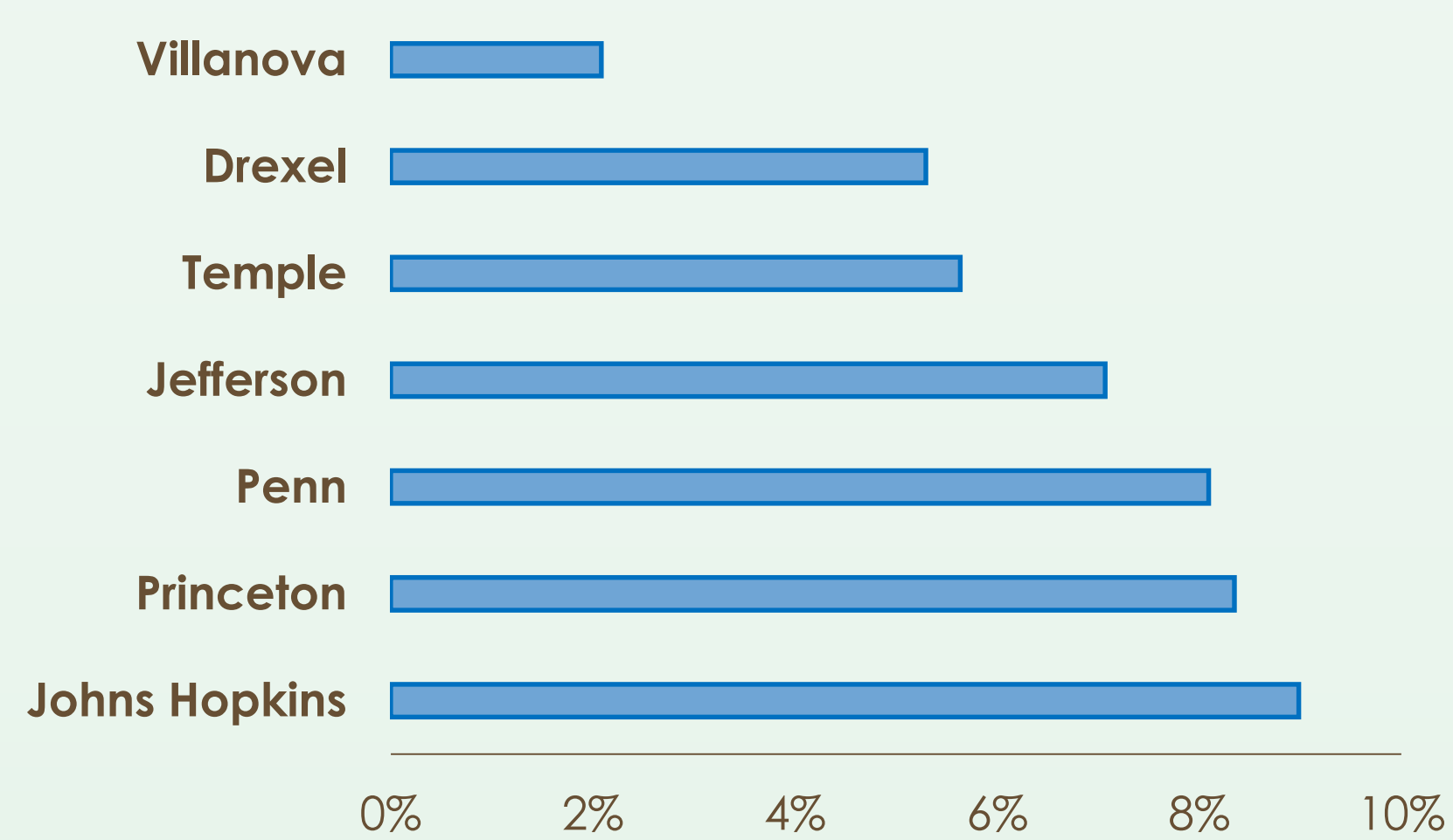
Open access publishing is growing in popularity because it facilitates the sharing of research results with the general public and research peers. Open access publishing provides free on-line access to readers, which is a significant shift away from traditional pay-wall or pay-to-access business models which have defined journal publishing for decades.

Numerous journals are either entirely open access, or have what is known as a "Gold" open access option for authors, where authors can pay to make their published work available for free to readers.

#### Open access has many benefits beyond expanded readership:

- Relatively short review periods conducted by reputable editorial board members and peer-reviewers
- Easy method for complying with funder mandates, which have been moving towards ensuring open access sharing of research results

#### Percent of Open Access Publications from our Regional Peers



**Figure 1.** Results from a recent Scopus search showing the relative percentages of open access publications from regional institutions.

Scopus defines open access as "articles published in "Gold" OA, including full OA journals, Hybrids and Open Archive"

### An Open Access Case Study

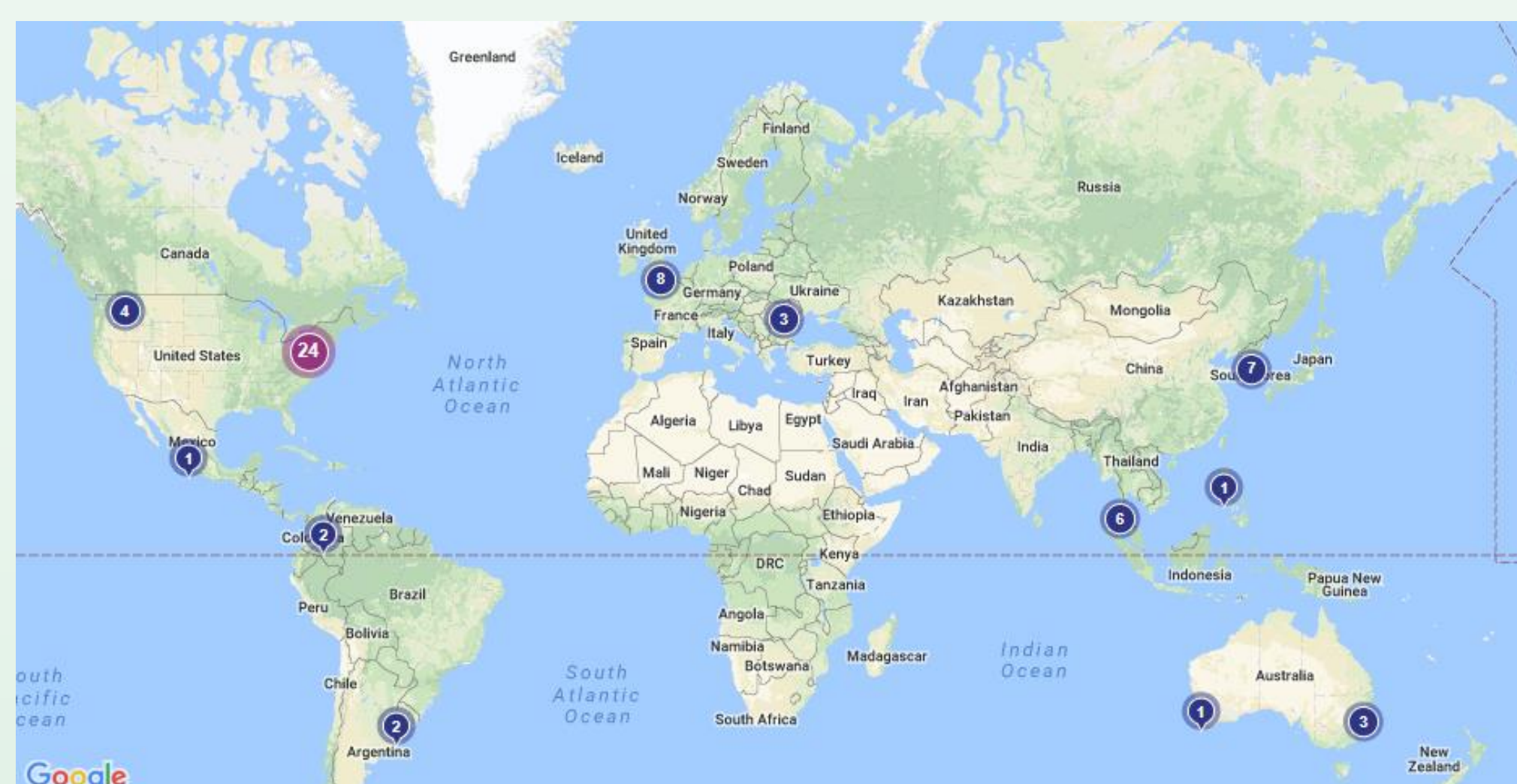
Jefferson faculty members recently published their research in Nature's *Scientific Reports*. Their work on the chemistry of cold brew coffee is of interest to the general public, so they wanted to ensure that coffee connoisseurs from the public and industry could access their work.



**Figure 2.** The article published by Fuller and Rao is now searchable on PubMed and Europe PMC due to its open access license.

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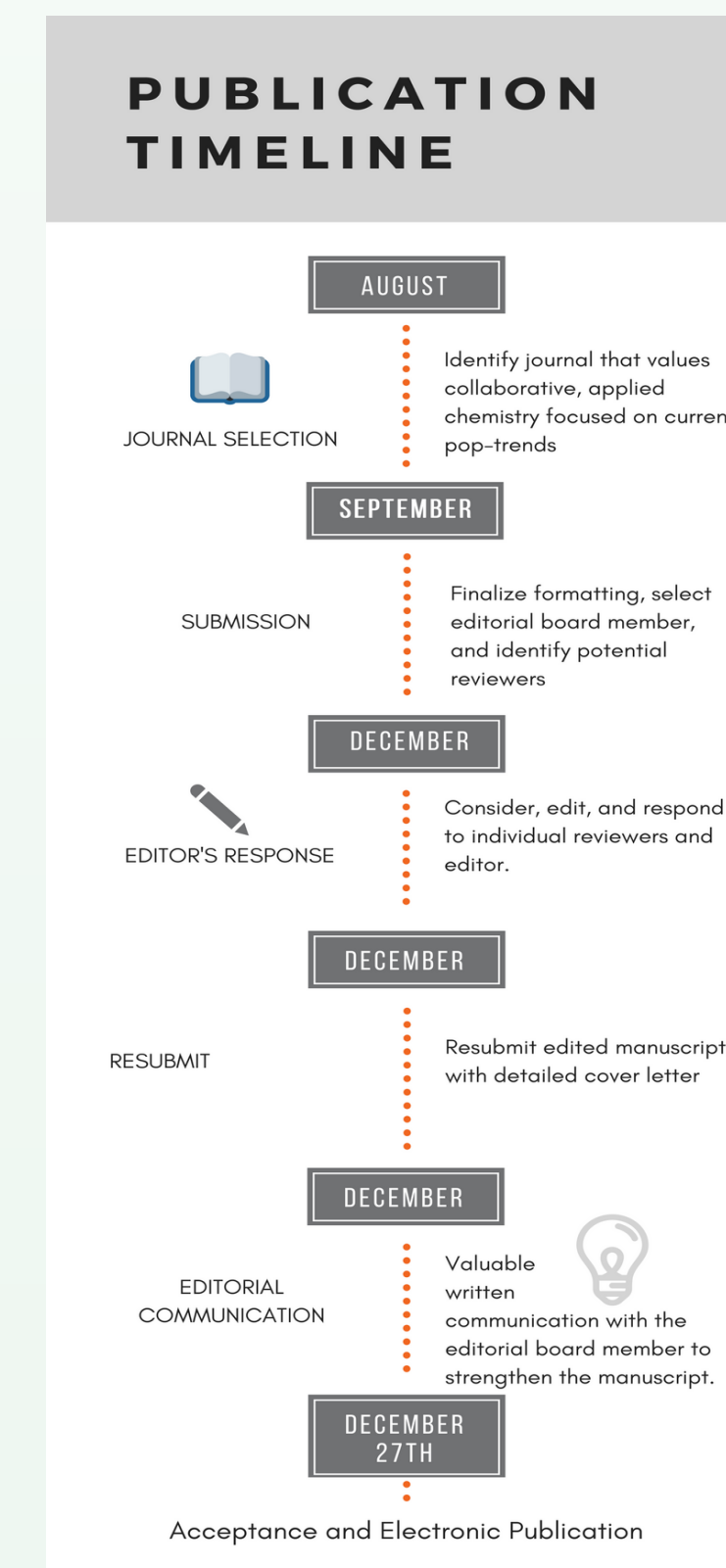
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**Figure 5.** The global distribution of downloads, as traceable by the Jefferson Digital Commons.

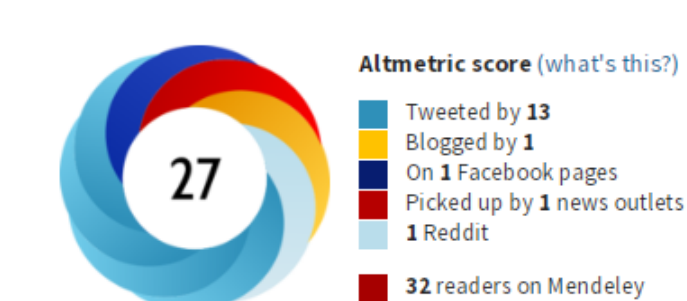


**Figure 3.** The authors offer some reasons why they preferred an open access journal.



**Figure 4.** The timeline of the publication process in *Scientific Reports*.

#### Online attention



This Altimeter score means that the article is:

- in the 92<sup>nd</sup> percentile (ranked 21,042<sup>nd</sup>) of the 278,955 tracked articles of a similar age in all journals
- in the 92<sup>nd</sup> percentile (ranked 413<sup>th</sup>) of the 5,679 tracked articles of a similar age in *Scientific Reports*

#### Twitter demographics

Country	Tweets	% of Tweets
United States	4	30.77%
Japan	1	7.69%
No location data	8	61.54%

**Figure 6.** An example of the multiple ways open access articles can enter public forums and spread through various readerships.

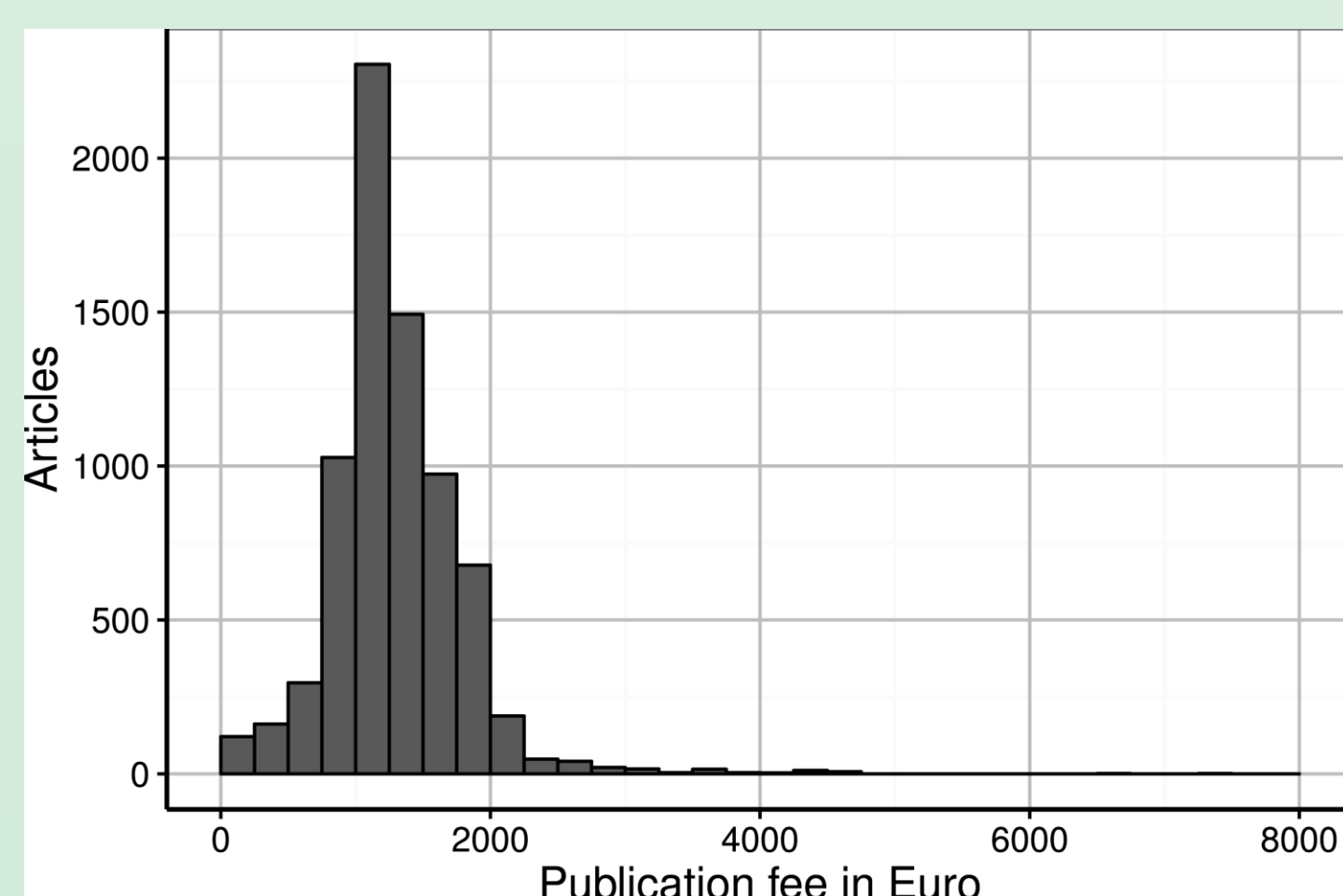
### The Down Side of Open Access Publishing

With the growth of on-line publishing and the augmentation of open access journals, there has also been an increase in predatory journals. These illegitimate journals charge authors publication fees to gain a profit, but do not provide the publishing services associated with reputable journals. These shell-journals exist only to extort money from researchers trying to publish their work.

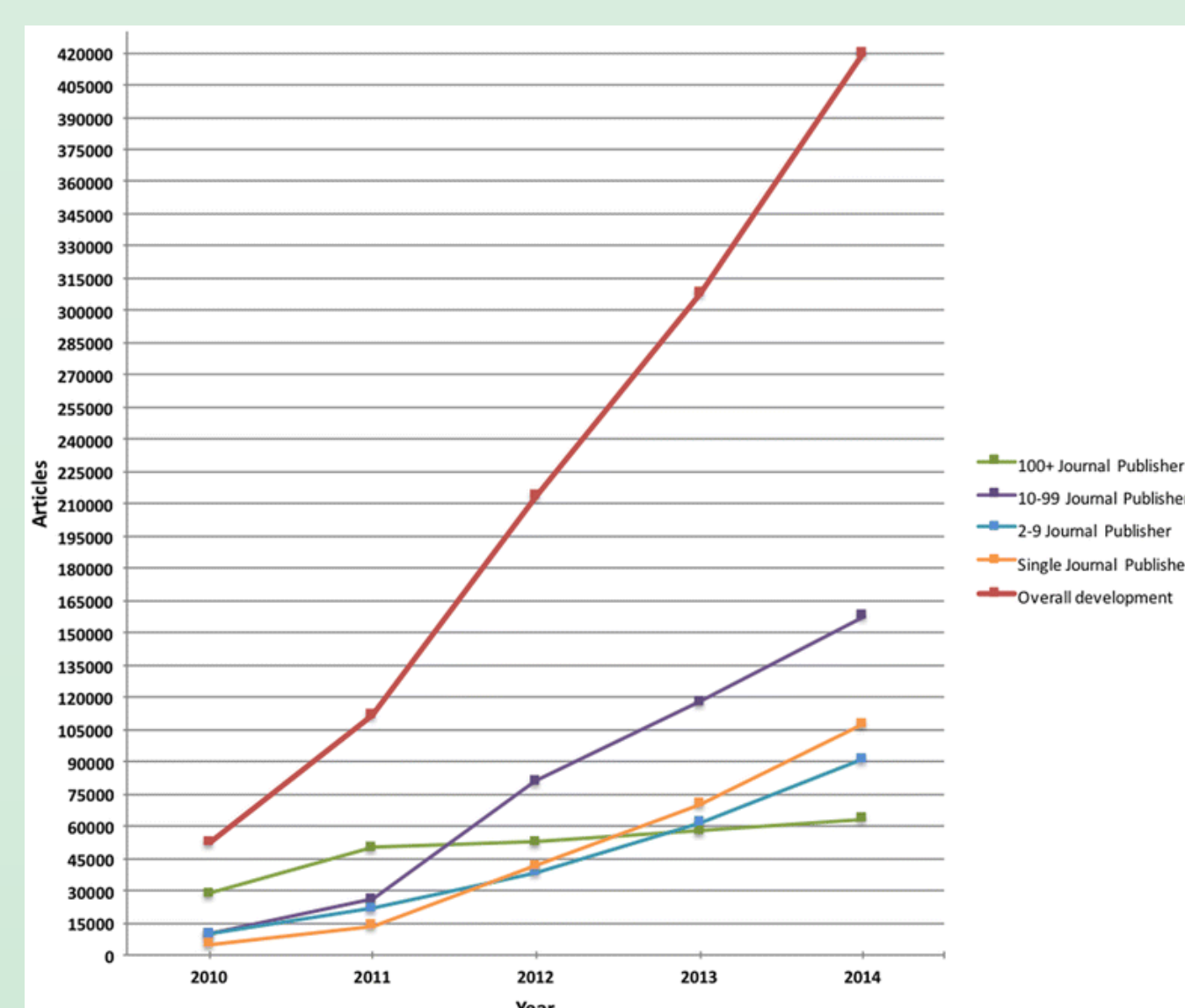
In a recent study by Powell and Kupsco (2018), they found their institution, Emory University, spent \$330,515 dollars of NIH grant money over a 5 year period submitting research to predatory publishers (Powell & Kupsco, 2018).

Figure 7 shows the average institutional spending on open access articles as determined by a study of 30 German universities and organizations from 2005 to 2015 (Jahn & Tullney, 2016). There is a huge potential for revenue in the open access publishing business model, which has spurred the growth of predatory journals hoping to cash in on the practice.

Figure 8 shows the global growth of predatory journal articles from 2010 to 2014 across all publishing markets (Shen & Bjork, 2015).



**Figure 7.** Institutional spending on publication fees by German research organizations per article (in €). doi:10.7717/peerj.2323/fig-2



**Figure 8.** The development of active predatory open access journals from 2010 to 2014. doi:10.1186/s12916-015-0469-2

### Hints and Tips When Considering Open Access Publishing

Shamseer et al. (2017) studied nearly 300 journals including predatory journals, open access journals, and subscription based journals and found 13 evidence-based characteristics that can be used to distinguish predatory journals from reputable journals. (Shamseer et al., 2017). These characteristics and other useful resources for vetting journal quality are shown below in Figure 9.



**Figure 9.** Numerous processes to distinguish predatory journals from quality open access and subscription journals.

### Conclusions and Important Take-Aways

The authors believe that open access publishing is an important component to fulfilling Jefferson's mission of reimagining health, education, and discovery to create unparalleled value. By allowing an open free readership to view our work, we fulfill the value to "put people first" and allow a diverse audience to institutional scholarship.

We should consider best practices around this new and growing publishing trend to ensure that researchers are knowledgeable about the benefits of open access and are aware of the risk of predatory journal publishers.

In order to adapt to this substantial change in peer-reviewed publishing, the institution should decide how best to support faculty and researchers with the significant costs of open access publishing.

Should internal funding support be provided to faculty and researchers, or should all open access fees be paid by the researcher and/or included in grant proposals / budgets?

For non-grant funded research, what options might be available to support the sharing of scholarship to an open access readership?

### References

- Jahn, N., & Tullney, M. (2016). A study of institutional spending on open access publication fees in Germany. *PeerJ*, 4, e2323.
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