

Contributors, guests and ghosts

Why do we need statements to define the contributions made by each author? Does this practice help or hinder scientists, and which demographic is most affected?

The current policy of *Nature* journals is that “authors are required to include a statement of responsibility in the manuscript that specifies the contribution of every author”¹. Occasionally, the editors of *Nature Photonics* are challenged by authors to explain the need for this statement. There are also questions regarding the effectiveness of the policy.

In a previous editorial discussing plagiarism², we claimed that an author contribution statement serves at least two useful purposes: it clearly defines each author’s role in the research and hence to some extent also their responsibility in the case of misconduct (such as dual publication³), and also serves to discourage guest authorship — the unscrupulous practise of including authors for reasons other than scientific ones. This raises an important question: is the author contribution statement effective in deterring these problems?

We contacted a small sample (ten people) of the photonics community to get some feedback on the topic. Almost all the junior scientists provided feedback, whereas senior scientists generally did not. None of the junior scientists were against the requirement, although many questioned its effectiveness.

Only one senior scientist replied: Ad Lagendijk, who maintains the Survival Blog For Scientists⁴. Many of the posts on the website are aimed at informing junior scientists, often in a blunt and honest fashion, how becoming a ‘senior’ scientist works in the real world. Lagendijk believes that the current system results in too many ‘senior’ scientists who are not necessarily good researchers. One of his main concerns is that young scientists often suffer from the ambitions of their successful group leader.

“Our blog aims to help young scientists find their way in the scientific community. It seems that our community is going more and more in the direction of ‘the winner takes all’ — the winner in this context being the ‘successful’ scientist,” Lagendijk told *Nature Photonics*.

One of his recent blog entries⁵ covered the issue of author contribution statements. In particular, he feels that a statement “about which author did what” could be used at the expense of junior scientists.



Philippe Tassin, a postdoctoral scientist who recently published a manuscript in *Nature Photonics*, explained that he has witnessed cases (not on his own manuscripts) where names were added to an author list for reasons other than genuine scientific contribution. Such guest authorship dilutes the impact of the contributions made by the core researchers. It is conceivable that this type of activity frequently comes at the expense of junior scientists, for the benefit of senior scientists and their friends or colleagues. When asked if author contribution statements are effective in preventing this problem, Tassin explained that if a professor is willing to add guest authors, he/she would probably have no problem with forging the author contribution statement as well.

Although giving fair mention to the roles played by each researcher might be an important enough reason alone to justify the use of a contribution statement, another reason for having the statement, as explained by Lagendijk and Tassin, is to document responsibility in case of potential scientific misconduct. However, Tassin pointed out that authors could attempt to disclaim responsibility from parts of the work to which they are not listed as having contributed. As highlighted in a previous editorial², “submission to a *Nature* journal is taken by the journal to mean that all

the listed authors have agreed on all of the contents.” It is therefore the responsibility of the corresponding author to ensure that all authors have made reasonable attempts, within their ability, to check the manuscript and relevant material. Naturally, this is a complex task that must take into account the potentially different backgrounds of all the contributors.

Another question often raised is whether the author list can include individuals who have only provided resources, as is sometimes the case for senior scientists or professors. Although funding and resources are obviously important for getting the job done, authorship on a scientific manuscript requires scientific contribution and responsibility. If this were not the case, then authors would also need to consider including names of other facilitators, such as senior department and faculty members, or officials from funding bodies.

Lagendijk believes that the present problems in science may last for quite some time. His advice to young scientists is therefore to check the author contribution statements on a group’s papers before joining. This may tell you if the senior scientist is doing research or is acting only as a manager, and whether students are encouraged to take part in multiple aspects of research and manuscript preparation or are typically limited to a single specific (albeit important) role such as simulation, fabrication or manuscript writing. This provides some insight into the group’s atmosphere, which is perhaps one of the unforeseen positive functions of including author contribution statements. Talking to current and former members about their experiences is of course the best way to learn about a group.

When asked whether or not we should continue to require author contribution statements, Tassin provided an appropriate analogy: “If I’m leaving my car parked, I will lock it. Does that prevent theft? Probably not, but I’m still going to lock the door.” □

References

1. www.nature.com/authors/editorial_policies/authorship.html
2. *Nature Photon.* 3, 237 (2009).
3. *Nature Photon.* 5, 507 (2011).
4. www.sciencesurvivalblog.com/
5. www.sciencesurvivalblog.com/getting-published/the-nature-of-the-contribution-of-every-author-should-be-made-clear_5705