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Educating students to play the publication game

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Educating students to play the publication game

Abstract

The rise and rise of predatory publishers (Beall, 2016) suggests the unwary in the research world are still being conned. Yet, for emerging researchers, this rogue behaviour is only one of the threats encountered when playing the 'publication game'

Keywords

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POINTS FOR DEBATE

Educating students to play the publication game

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The rise and rise of predatory publishers (Beall, 2016) suggests the unwary in the research world are still being conned. Yet, for emerging researchers, this rogue behaviour is only one of the threats encountered when playing the ‘publication game’.

Wherever money is involved, there will always be opportunists and confidence tricksters. The expansion of legitimate online publishing is no exception, providing an opportunity for unscrupulous rogues to exploit the desire, workplace requirements, and sometimes, even, the desperation of students, academics and other professionals to publish their research. They charge publication fees without providing appropriate editorial and other publishing services recognised as the norm when publishing with legitimate journals, and the published article is largely invisible through the usual library searches. The continued increase in numbers of so-called ‘predatory publishers’ over the past six years, as listed on Jeffrey Beall’s website (Table 1), is reflected in the flood of bogus invitations to contribute an article or manuscript, join an editorial board, or accept an invitation as a conference speaker bombarding the in-boxes of academics and professionals across a range of disciplines. Moreover, Beall’s extensive and broad-ranging list of predatory publishers, journals and conferences is evidence that the message to exercise a high index of suspicion when confronted with such invitations has not yet been universally acknowledged or acted upon. Vinny and colleagues (2016) recently described a selection of the strategies used by predatory publishers and called for increased awareness indicating that ‘prevention is better than cure’. As academics and professional educators, we need to question how well we are teaching our students, the researchers of the future, about the ‘publication game’.

The potential exploitation of unwary new graduates is portrayed in the attached cartoon (Figure 1). Recognising that research skills are a core competency, many professional degree courses have integrated hands-on research experiences during undergraduate training. Communication skills, such as those demonstrated through publication, can improve employment prospects in many professions. In medicine, as an example, a research publication can be the gateway to acceptance into a graduate specialist training program. New employees whose careers would benefit from publication of their undergraduate research can find the publication pathway time-consuming and unrewarding, and many undergraduate student manuscripts stall despite clear evidence of the value of these programs in increasing students’ research capability (Powell, 2016). Good academic writing is a necessary skill for researchers and takes time and experience to master. With some exceptions (Jones et al., 2011), many students are left to attempt publication after they have completed their course. It is logical that new graduates with unpublished data are targets for predators. Support for the development of writing skills and for legitimate publication of student research should be a priority in all academic institutions.

However, the art and science of publishing research are not limited to developing writing skills and being on the lookout for predatory publishers. Students whose later careers will involve reporting research would benefit from early awareness of some of the other hazards and issues they might encounter. Emerging researchers need to recognise and

understand such topics as intellectual property and data ownership; roles, rights and responsibilities in interdisciplinary research and collaboration; conflicts of interest; research ethics; maintaining professional credibility as a researcher; publishing industry-funded research; rivalry and competition amongst researchers; gift, ghost and guest authorship; the meaning of author order; and the potential for exploitation of junior researchers.

These issues are not new. While the invention of software such as ‘Turnitin’ means that most students are aware enough to avoid plagiarism when writing, the issue of manuscript authorship, for instance, is one area open to exploitation. Pignatelli and colleagues (2015) revealed ignorance of international editorial criteria by hospital clinicians in France and highlighted the prevalence of ghost and gift authorship, in which individuals are named as authors but have not fulfilled authorship criteria or contributed to the research or manuscript. Similarly, Wislar and colleagues (2011) reported inappropriate authorship in high-impact biomedical journals. Indeed, some journals do not have policies on authorship – or have policies that don’t explicitly exclude ghost or guest authors or do not require an indication of the level of contribution of each author (Resnick et al., 2015).

Research that is commercial-in-confidence, or funded through defence or security agencies, may contain certain constraints to publication that can impact on job prospects. Awareness of the issues surrounding the publication of sensitive research is an important topic for particular professional degrees. Glasspool and Dyer (2011) described how Product Design students learn about commercial sensitivities through the inclusion of specific education while undertaking projects within an industry-university partnership.

The ease of access to, and manipulation of, electronic data submitted online is motivation to include copyright and intellectual property issues in curricula. Rodriguez and colleagues (2014) discussed the value of including copyright education, particularly in the context of creating and sharing property in the digital age as part of an information literacy curriculum. In many design-based professions, issues around ownership need to be identified and understood. Raës and colleagues (2016) recently described the need for a module for engineering students that teaches intellectual property rights, and identified case studies as a preferred method of delivering education in this area.

Another issue is inadequate reporting of research, including non-reporting of some results of clinical trials, misleading reporting, or the inclusion of a particular spin or bias in the interpretation. Altman and Moher (2013) suggest that each research article should include a declaration of transparency as “an antidote to inadequate reporting”, reminding the reader that withholding research information contravenes the Declaration of Helsinki. This declaration and the Australian National Statement on the Ethical Conduct in Human Research are critical guidelines governing human research, yet awareness of the ethics of human research has been shown to be lacking even among supervisors of medical student research (Weston et al., 2015).

The threats posed by predatory publishers might actually be a timely signal to start a dialogue about how the established academic, professional and industry worlds can collaborate to develop curriculum materials to prepare graduates for future professional practices that involve dissemination of research findings. A multitude of scenarios exist that could be used as case studies or tools for educating senior students who are about to enter professions in which engaging with research and producing publications are key competencies. What should you do when your workplace supervisor has taken your idea to present at a meeting? Or when a senior professional suggests their name goes on a conference poster or paper? As a research assistant who gathered data, are you entitled to be an author on the resulting manuscript? Can you publish research about your own clients? What is an impact factor and when does it matter? How do you check if an invitation to submit an article

is legitimate? Where can you publish an idea or design? Who should be first author? What is good publication practice?

These kinds of questions can be tailored to particular professions – developed as case studies, online modules or other teaching materials through academic and industry partnerships – and used to build the capacity of students about to embark on careers in competitive industries and professions. Armed with the rules of the publication game, and with the skills to promote ethical fair play, the new graduates depicted in the cartoon are in a unique position to contribute to knowledge in their field through good and proper publication practice.

Figure 1: Cartoon promoting awareness of predatory publishers.

Table 1: Numbers of predatory publishers and journals as identified by Beall (2016)

Year	Number of publishers	Number of stand-alone journals
2011	18	not available
2012	23	not available
2013	225	126
2014	477	303
2015	693	507
2016	923	882

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