Researchers' Trends, Intentions, and Awareness, Towards Publications in Open Access

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ABSTRACT

This study examined Israeli researchers' trends, intentions and awareness regarding scientific publications in open access (OA) journals and repositories. A survey was distributed to 202 Israeli researchers. According to the findings, most researchers used a combination of closed (traditional/toll access) journals with OA gold/green routes. Researchers showed low awareness of OA key concepts, which was significantly associated with the tendency not to publish in OA. In addition, researchers who reported that there was a formal policy concerning publishing articles in high-impact journals in their department tended to publish less in OA. The most common reasons that caused researchers not to publish in OA routes were lack of funding and lack of awareness. Conclusions present a need for an OA's declared policy as well as financial and informational support.

KEYWORDS

Open-Access (OA) publication, green OA, gold OA, blended publishing models

INTRODUCTION

Open Access (OA) is a term that is used to address unrestricted online access to scientific articles, as part of an effort to "open up" scientific outputs to the public. Further, OA may improve the rigor, replicability, and availability of research (Clayson et al., 2021; Piwowar et al., 2018). Countries and research institutions across the globe have committed to providing OA for their research output while developing a clear OA policy (Moskovkin et al., 2021). In addition, various grants require that the research outputs will be available in OA journals (gold OA) and repositories (green OA). Both models have considerable challenges. Gold OA includes high processing charges for OA journals and the risk of encountering or using "predatory" journals (those that are driven by financial interest and do not perform quality examinations). Green OA, includes misunderstandings concerning publishers' copyright policies that prevent researchers from self-archiving their articles (Narayan & Luca, 2017). Due to the lack of OA policy and research regarding OA publication in Israel, the current study sought to examine Israeli researchers' trends, intentions, and awareness, regarding scientific publications in OA journals and repositories.

METHOD

A quantitative research design based on two questionnaires was used (Barrett et al., 2017; Woszczynski & Whitman, 2016). The questionnaire was distributed through researchers' email list on the faculties websites and/or through the faculty secretariat. 202 Israeli researchers from universities, colleges and research institutes in Israel took part in the study. Among them, 106 (52.5%) were from the Social Sciences and the Humanities, and 96 (47.5%) were from the Exact Sciences. The structured questionnaire contained closed end questions regarding OA awareness, engagement and intention to engage with OA, the department / university position, and reasons why they do not publish or intend to publish in OA journals and/or repositories.

RESULTS

Engagement with Open Access Publishing

Researchers were asked to choose the models they used in the last 3 years to disseminate their publication (e.g. article, book, book chapter, conference paper, working paper). Publication models are presented in Table 1.

Publishing model	No of researchers (%)	Description
Blended: Open-Access +Traditional subscription access journals	157 (77.7%)	*Blended publishing models* (the researcher could choose more than one model, therefore there are more models than the total results count): o Published in closed (toll access) journals: 149 researchers (95%) o OA journal: 81 researchers (52%) o Discipline or subject repository (e.g. ArXiv, SSRN): 63 (40%) o Academic social networks (e.g. ResearchGate): 60 (38%) o Personal/University website: 52 researchers (33%)
Non-OA only (i.e. traditional journal)	35 (17.3%)	
Open-Access (Gold/Green only)	10 (5%)	

Table 1. Researchers' Publishing Models

Intention to Engage with Open Access

Researchers were asked if they intend to publish in OA journals and/or repositories in the coming year. Answers were coded on a three-level ascending order scale as presented in Figure 1. 30.7% of the researchers reported that they do not intend to publish in OA models.
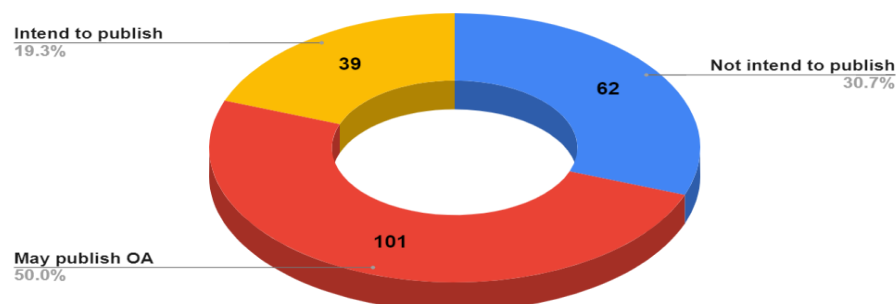

Figure 1. Researchers' Intention to Publish OA

Awareness of Open Access Publishing

Researchers were asked to rate their awareness regarding the following forms of OA publishing: Open Access: Gold model, Open Access: Green model, Creative Commons license, hybrid OA, predatory journals. The mean score (2.24 (n=202, SD=1.05)) on a five-point scale (where 5=Very familiar) shows that respondents had a low average score about OA key concepts, with a midpoint of 3.0. Using Spearman's rank-order correlation test indicated researchers' awareness has a weak, positive, and significant relationship (r (202) $=.184$, $p=.043$) concerning their intentions to publish in OA journals or repositories.

Publishing an article – Formal/non-formal policy

Researchers were asked if their department had a formal policy concerning publishing articles in journals. Answers were coded on a three-level ascending order scale (1-3) as detailed below:

1. I do not know of any formal or non-formal policy—57 researchers (28%).
2. There is *a non-formal* policy that requires publishing in a high impact factor journal, indexed in *Scopus* or the *Web of Science*, and intending to use a Q1 journal—63 researchers (31%).
3. There is *a formal* policy position that requires publishing in a high impact factor journal, indexed in *Scopus* or in the *Web of Science*, and intend to use a Q1 journal—82 researchers (41%).

A chi-square test of independence showed significant association between intention to publish in OA and a publication policy (X^2 (2, $N = 202$) = 4.1, $p = .035$). Those who reported a formal policy expressed a lower intention to publish in OA.

Reasons for not publishing / lack of intention to publish in OA journal/repository

Researchers were also asked to rate the following statements according to their importance, to explain why they have *not* published (35, 17%)/do not intend to publish in OA journals (62, 30.7%). Results range from the most common reason (1) to the least common (4):

1. I was unable to fund/I am not willing to pay an article processing charge (43%).
2. I am not aware of Gold Open Access as a publishing model (28%).
3. I am not familiar enough with quality and peer reviewed OA journals in my field that are required for promotion (17%).
4. I am concerned about "predatory journals" (12%).

Reasons why researchers do not intend to self-archive articles in a OA repository (i.e., Green OA). Results are presented ranging from the most common reason (1) to the least common (3):

1. I am not aware of any repository in my field (47%).
2. I am concerned that I will violate copyright if I put my article in a repository (42%).
3. I do not think it worth the time and effort involved (11%).

CONCLUSION

Based on this study's findings, the overarching recommendation is for the urgent need to regulate policies at the national and institutional levels regarding scientific OA publications. Authors assume that by following a declared policy, researchers' awareness towards OA models would increase. Moreover, as findings indicate, academic researchers need financial and informational support. Therefore, dedicated budgets should be provided to researchers who choose to publish in OA, as well as more information regarding OA models and concerning copyright and appropriate repositories. These facilitating conditions will allow researchers flexibility in choosing a journal in which to publish and encourage them to use OA journals. Further, it may raise their awareness concerning self-archiving repositories. Further studies may crosscheck researchers' perspectives with a bibliometric analysis.

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