ASCILITE 2024

Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

Navigating the terrain of academic publishing in educational technology

Linda Corrin
Deakin University

Feifei Han
Australian Catholic University

Henk Huijser
Queensland University of Technology

The field of educational technology (EdTech) is characterised by innovation and emerging technologies which continually provide new opportunities to enhance learning environments. As the theme of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) 2024 conference suggests, the field explores emerging frontiers in learning spaces, pedagogies, and technologies and findings from this exploration should be made accessible to the community. Academic publishing is a key channel through which outcomes are disseminated to researchers and practitioners. Therefore, it is important to understand the current state of the publishing terrain opportunities can be embraced while also addressing the challenges that threaten the integrity and sustainability of EdTech publishing into the future. In this position paper the current opportunities and challenges relating to EdTech publishing are explored with reference to open data from journal ranking organisations, journal websites, and related literature. The aim is to examine how these issues, including scale, cost, peer review, generative AI, and the integrity of the publishing processes influence the perceived impact of EdTech journals. This discussion informs the identification of key questions that stakeholders in the field need to address to ensure a sustainable and impactful future for EdTech publishing.

Keywords: Educational technology, academic publishing, impact, trends

Introduction

Since the emergence of academic publishing in the mid-1600s the ways publications are created, reviewed, and disseminated have continually evolved in response to changes in academic communities, society, and technology (Fyfe et al., 2022). The formal publication of educational technology (EdTech) research emerged in the 1970s with the foundation of the *British Journal of Educational Technology (BJET)* and has continued to grow ever since. However, it is currently a turbulent time for academic publishing across disciplines, with new technologies such as generative Artificial Intelligence (generative AI) forcing editorial teams to reevaluate manuscript writing and reviewing practices, commercial interests changing the ways journals are managed and funded, and the emergence of questionable practices by authors responding to increasing expectations to publish from their institutions (To & Yu, 2023). Educational technology publishing has not been immune to these issues. Therefore, it is important to understand the influence such issues may have on the shape and scale of publishing in EdTech into the future so we can adapt and respond accordingly.

In this position paper we discuss a range of current opportunities and issues around EdTech publishing including the increasing number of publication venues, cost and efficiency of publishing practices, challenges in engaging peer reviewers, the integrity of publishing and authorship practices, and the emergence of generative AI. The aim of this commentary is to examine issues that influence impact EdTech research and identify key questions stakeholders such as journal editors, leaders of professional societies (e.g., Australasian

Society for Computers in Learning in Tertiary Education (ASCILITE)), researchers, and practitioners should consider ensuring a sustainable and impactful publishing future. Specific reference to the official journal of ASCILITE, the *Australasian Journal of Educational Technology (AJET)*, is made to illustrate some of the issues profiled. Supporting evidence has been sourced from open data provided by two major journal impact rating services (hosted by Scopus and Clarivate), information on journal websites, and relevant literature.

The importance of impact in academic publishing

There are many ways that work in EdTech can have impact, making this a difficult metric to quantify. In the academic publishing field this is primarily done through journal ranking metrics reported in platforms such as Clarivate's Journal Citation Reports (JCR), Scopus' Scimago Journal and Country Rank (SJR), and Google's Scholar Metrics. Each of these ranking schemes employs a range of measures to calculate different trends and scores that ultimately rank journals in order of impact in discipline categories. Central to these calculations are the number of times articles in a journal are cited by others, which has resulted in an increased focus on what is published and how it is promoted to ensure others make reference to it in their work. The stakes associated with these rankings and citations are high, with future funding, academic promotion, and institutional league tables being commonly tied to these rankings. This in turn increases the pressure on academic publishers to maintain a high impact in order to attract good authors to their publication and remain viable. This can result in top journals having high rejection rates and a perception that getting into these can be more prestigious than lower, pay-to-publish model journals (Butler et al., 2024; Hanson et al., 2024).

Current key issues in educational technology publishing

In recent years several trends and innovations have presented new opportunities to academic publishing (e.g., open access, open science, AI, etc.), while others have created significant challenges. The concise nature of this paper does not allow room to explore all these opportunities and challenges in depth, so we have focused on those requiring immediate recognition and action to ensure sustainability of EdTech publishing.

Increasing number of educational technology publication venues

There has been an increase in the number of EdTech journals released in recent years which is providing wider opportunities for authors to have their work published. Twenty-five years ago (1999) JCR listed 101 journals in the category of Education and Educational Research. By 2023 that number had risen to 756, a 650% increase, or an average of 26 new journals a year. The SJR data shows that for the more specific category of e-learning there has been an increase from 28 journals in 1999 to 68 in 2023, an average of just over one new journal a year. While a greater number of journals affords authors more scope to 'shop around' for one that best aligns with their work, this also increases the competition for individual journals, like AJET, to attract high quality articles. The other related challenge that arises is the questionable practices employed by some new entrants into the field to attract authors (Butler et al., 2024) which leads to the question of how journals can ethically continue to attract high-quality research articles in an increasingly competitive environment. For authors the question is how to choose from the growing number of EdTech journals to ensure their work reaches the intended audience in the most impactful way possible.

Cost of academic publishing practices

The costs associated with academic publishing practices such as copyediting, marketing, and platform hosting have increased over time. Although, publishers experienced some cost savings resulting from discontinuing the printing and distribution of physical journals. At the same time, the work of writing and reviewing articles is largely borne by the author or reviewer (via their institution), as publishers do not usually pay for these services. Increasingly academics journals that were established by universities or professional societies have formed partnerships with large publishers to provide administrative and editorial services. These services are

funded by subscription charges institutions pay to access journal content and/or through substantial Article Processing Charges (APCs) levied on authors to enable the open access publishing of their work. In 2024, the average APC for journals ranked in the top 16 e-learning journals by SJR (see Table 1) is US$3,542 (excluding journals that do not charge an APC) which is roughly equivalent to AU$5,300 (using July 2024 exchange rates).

In a recent discussion paper released by *The Australia Institute* (Scicluna, 2024), the practice of commercial publishers double dipping by charging institutions subscription and APCs was said to be costing Australian universities almost $1 billion dollars a year. Instead, it was recommended that research funding be allocated to incentivise researchers to publish in "open access journals that charge commensurate article processing fees", rapid publication via preprint servers, and through institutional repositories (Scicluna, 2024, p. 2).

Table 1
*Top 16 e-Learning Journals Ranked by SJR for the Year 2023**

Rank	Journal	Impact Factor	Impact change	Publisher	Articles published	Approx. APC (US$)
1	Computers & Education	3.651	- 1% ▼	Elsevier	163	4,690
2	International Journal of Educational Technology in Higher Education	2.578	+ 26% ▲	Springer Open	62	0
3	Internet and Higher Education	2.426	- 27% ▼	Elsevier	18	4,440
4	British Journal of Educational Technology (BJET)	2.425	+ 15% ▲	Wiley	120	4,050
5	Government Information Quarterly	2.171	- 6% ▼	Elsevier	82	3,570
6	International Journal of Artificial Intelligence in Education	1.842	+ 66% ▲	Springer	76	2,990
7	Journal of Computer Assisted Learning	1.842	+ 13% ▲	Wiley	179	3,950
8	Distance Education	1.697	- 10% ▼	Routledge	43	3,300
9	Educational Technology and Society	1.559	+49% ▲	National Taiwan Normal University	50	0
10	IEEE Transactions on Learning Technologies	1.493	+ 31% ▲	IEEE	93	2,195
11	Interactive Learning Environments	1.312	+ 12% ▲	Taylor & Francis	659	3,300
12	Education and Information Technologies	1.301	+ 4% ▲	Springer	1004	3,390
13	Interactive Technology and Smart Education	1.149	- 3% ▼	Emerald	39	3,874
14	Open Learning	1.062	+ 55% ▲	Taylor & Francis	31	3,300
15	Learning Environments Research	1.046	- 12% ▼	Springer	70	2,990
16	Australasian Journal of Educational Technology (AJET)	1	- 9% ▼	ASCILITE	49	0

* This table includes the top 16 journals in order to include AJET which is ranked 16th

In Table 1 it can be seen that only two journals in the top 16 are not associated with commercial publishers (*Educational Technology and Society (ETS)*, and AJET). These two, plus the *International Journal of Educational Technology in Higher Education (IJETHE)*, are the only fully open access journals with no APCs. ETS and IJETHE are both funded by universities (Open University of Catalonia and National Taiwan Normal University respectively), while AJET is funded by ASCILITE. A challenge going forward is whether these organisations can continue to fund these journals in an environment where commercial publishers are able to generate large incomes and employ professional editorial teams. All editorial team members of AJET contributed their time voluntarily, however with increasing academic workload demands it is not clear how sustainable this will model into the future. An important question is how open access journals not supported by commercial publishers can continue to remain competitive in this environment. Alternatively, the question could be

whether the highly profitable commercial model of academic publishing is sustainable for authors/institutions, or should we adapt to improve affordability while compensating participants who contribute to the process?

Engagement in the peer review process

A major challenge across the academic publishing landscape is the ability to attract and retain good peer reviewers, especially when the number of journals requiring peer reviewers in increasing. There are many benefits to being a peer reviewer of a journal in terms of exposure to new research, engagement with quality of academic writing, and recognition by institutions of services given to the research community. However it is becoming increasingly difficult to get people to volunteer their time to participate in the peer review process, and the quality of peer reviews is not always to a standard that best supports the publication of impactful work (for a more in-depth discussion of these issues see Corrin et al., 2023). Therefore, a key question for editorial teams is how to best acknowledge reviewers' work so they continue to provide this service.

Integrity of publishing and authorship practices

A growing concern for academic publishing is the integrity of authors and publishers within this increasingly competitive environment. The profiteering of publishers is creating an uneven playing field where those with greater access to funding can pay for their articles to be published (Butler et al., 2024). While the data in Table 1 indicates that the number of articles published doesn't correlate with the impact of the journal, some journals are publishing a very high number of articles. The implication of this on impact over time is still to be seen. The rise of predatory journals that offer almost guarantee publication for a fee are also distorting the field in terms of number and quality of publications available (Callaghan & Nicholson, 2020). A key question is whether high publication rates dilute the field in a way that makes getting citations more difficult for authors, or will the opposite be true where citations will rise? For journals publishing 500+ articles a year, what additional promotional burden does that create to ensure that citation rates across articles remains high enough so as not to lower their impact factor ratings? In parallel to the rise of questionable publisher practices is increase in academic integrity issues perpetrated by authors. In 2023 there were more than 10,000 articles retracted from journals across all disciplines, most of which were retracted for issues with author manipulation of publishing processes and compromises in peer review (Van Noorden, 2023). While numbers are not available for EdTech journals specifically, it would be reasonable to assume that some of these practices will be present. A key question here is how can academic misconduct be detected and addressed without substantially adding to the cost and workload of editorial teams so that validity and reliability is maintained?

Emergence of generative AI

The recent growth of generative AI tools has created opportunities for researchers to increase productivity through the automation of elements of the research process but has also raised a number of questions in relation to the ethical use of this technology for publishing purposes. Journal teams have worked to develop initial policies and guidelines to guide authors and reviewers on how generative AI can be used appropriately (see Knight et al., 2024), but the full extent of how this technology can and should be used is evolving along with the capabilities of new AI tools. This leads to many questions about the role of the human in research processes, including manuscript authoring, as well as the role of generative AI in the broader educational technology research agenda going forward (see Lodge et al., 2023).

Future directions for educational technology publishing

This examination of key issues for academic publishing has raised several key questions to inform future directions for the EdTech field. While some of the issues covered in this position paper are not new, the increase in scale and focus on impact indicate this is a pivotal time for EdTech publishing. Calls for changes to particular publishing processes such as peer review have been made for many years (Corrin et al., 2023), but

recent challenges have prompted louder calls for significant change to academic publishing - from the revision of the ways that impact is measured, to the replacement of the journal as a core element of the system (e.g., Brembs et al., 2023). For journals like AJET, whose scale and freedom from the bounds of a commercial publisher enable adaptiveness within the changing environment, there are many ways to remain impactful and relevant as long as this can be done sustainably. We conclude with a call to all participants in EdTech publishing including editorial teams, authors, reviewers, and readers to engage in conversations about future directions for how research and practice is published and disseminated to ensure evidence continues to inform the ways we work, creative, and discover.

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