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Author(s): Hurme, Pertti

Title: Academic Journal Publishing and Open Access

Year: 2015

Version:

Please cite the original version:

Hurme, P. (2015). Academic Journal Publishing and Open Access. *Human Technology*, 11(2), 94-99. <https://doi.org/10.17011/ht/urn.201511113635>

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From the Editor in Chief**ACADEMIC JOURNAL PUBLISHING AND OPEN ACCESS**

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Human Technology: An Interdisciplinary Journal on Humans in ICT Environments started in 2005 as an open-access, peer-reviewed academic journal, published only online. At that time, the traditional printed journal model of publishing houses was quite dominant and largely uncontested. Now open-access journal publishing is growing rapidly (Björk & Solomon, 2014) and providing important alternative routes to researchers' access to the literature in many disciplines. This editorial only discusses the gold model of open-access publishing, not the green model (traditional journal publishing and a parallel repository).¹

One of the reasons for the spread of open-access academic journal publishing in the last decade or so undoubtedly is technological development. Without the printing and fulfillment costs associated with a tangible journal, digital journal publishing is less expensive because the necessary infrastructure already exists at many universities and research institutes. More significant, however, are the recent policies of universities and funding agencies recommending or even mandating open access to results from funded research. For instance, the European Commission recommends wide dissemination of publicly funded research by means of open-access publishing.²

Another reason for the increasing popularity of open-access publishing involves commercial and economic forces. Although university libraries have always had to be fiscally selective in the journal titles available to their patrons (see, e.g., Harnad et al., 2004), recent years have seen librarians making difficult choices regarding which journals to carry. Rising subscription prices for traditional journals have resulted in many universities—even in wealthy, developed countries—no longer being able to afford to offer in their libraries all the journals that researchers need or that have been available in past decades.

Thus, open-access publishing is available to a large number of researchers, students, and those interested in research. Open access makes it possible for researchers who work in developing countries to participate in the worldwide community of researchers communicating and collaborating globally.



As a result of growing interest in improving widespread and easy access to research reporting, traditional journal publishing can be regarded as being in a crisis (Van Noorden, 2013), with a certain tension being felt between the traditional business model of journal publishing and academia. At a time when profits of commercial publishers are high (Björk & Solomon, 2014), researchers can feel that their voluntary work, both as authors and as reviewers, is used for the benefit of publishing houses. Open-access journal publishing can be a solution to some of the concerns regarding the traditional model of publishing in an era of immediacy brought about by technology.

Models for Funding Open Access Journals

Fundamentally, the term open access (OA) means exactly what it says: Access to the material (in the case of *Human Technology*, journal articles) is free of charge. In reality, however, these journals are not free, as there are expenses involved in publishing of any kind (Wilinsky, 2003). The challenge for OA journal publishers, however, is determining the most appropriate OA funding model. One common classification of these publishing options refers to three models: the gold model, a hybrid model (a subcategory of the gold model), and the green model (Funk, 2007; Wilinsky, 2003). The third model (green) does not refer explicitly to journal publishing and is not discussed further.

In gold OA journals, articles are available right away, with no embargo. The costs of publishing the journal are covered in one of two ways, although Wilinsky (2003) suggested considerable variation even in these. For some journals, the publishers require an article processing charge (APC) or publication fee. Authors, or the authors' universities or funding organizations, are required to pay a designated amount either at submission or when the paper is accepted. However, other gold OA journals do not require author fees, and *Human Technology* is such a journal. For the most part, the costs associated with publishing *Human Technology* are underwritten by the Agora Center, an interdisciplinary research unit of the University of Jyväskylä, Finland. A key member of the university community, the Agora Center's essential research is financed by external funding and development projects, both national and international. The directors of the Agora Center took on and continue to advocate for the specialized role as an OA journal publisher within the scope of the institute's mission because they see an important niche in the academic research role—that of interdisciplinary research into the intersection of humans and technology—that must be filled. And they feel strongly that such research should be easily and immediately available to researchers worldwide.

Hybrid journal publishing suggests a mix between traditional and OA practices. Often, in this model, an APC is charged to the author (or his/her benefactor) in order for the published paper to have immediate access for readers while, simultaneously, a subscription to the journal is required of university libraries, a process frequently referred to as “double dipping.” On average, author fees of hybrid journals are higher than in gold OA journals proper, in both cases more than €1,000 (Björk & Solomon, 2014; see also Pinfield, Salter & Bath, in press).

Whatever the OA model, the growth in the number of academic OA journals is significant, as is the increasing willingness of database aggregators to include OA journals in their offerings (Laakso, Welling, Bukvova, Nyman, Björk & Hedlund, 2011; Morrison, 2006). The Directory of Open Access Journals³ has grown from 300 titles in 2003 to more than 10,000 in

2015, with *Human Technology: An Interdisciplinary Journal on Humans in ICT Environments* among them.

The Quality and Impact of Open Access Journals

Despite the clear value to researchers around the world of achieving immediate access to a vast cache of current research without financial constraint, a dark side lurks in OA journal publishing. The proliferation of OA journals has led to breaches in scientific ethics or questionable editorial practices by some OA journal publishers, particularly those who charge APCs (see, e.g., McCabe & Snyder, 2004). Unfortunately, some OA journal publishers have been considered predatory. Jeffrey Beall, of the University of Colorado Denver, maintains a useful list of potential, possible, and probable predatory journals that advance themselves as OA academic publications.⁴ His Web site shows that, in recent years, the number of questionable journals and publishers has increased steeply.⁵ Sadly, the actions of unethical or predatory publishers tarnish the reputation of OA publishers who are consciously and actively upholding the expected scientific practices of traditional, high-quality journals.

However, researchers do have ways to identify reputable publishers. Beall's list is indispensable for researchers wishing to vet the reputation of a journal for either submission or article citation reasons, and Declan Butler (2013) provides useful criteria in his *Nature* article. University libraries also often have up-to-date information about OA journal publishing and its caveats.

The publisher and editors of *Human Technology* recognize that disreputable OA journals can taint the perception quality and scholarly ethics of all OA journals, particularly independent, niche journals. Therefore, collaboration among our journal's publisher, editorial staff, and editorial board provides a framework for making every effort to maintain the quality of this journal and enacting improvements as needed. *Human Technology* is based in Finland, and the publication's integrity is guaranteed by two national classification and qualification systems. First, our journal is included in the list of academic journals of the Publication Forum,⁶ maintained by the Federation of Finnish Learned Societies. The list, prepared by the Federation in collaboration with researchers, comprises more than 20,000 national and international academic journals. Second, *Human Technology* has been awarded the Label for Peer-Reviewed Scholarly Publications by the Federation of Finnish Learned Societies.⁷ The label indicates that the peer-review process of manuscripts submitted to *Human Technology* is carried out consistently in line with the quality standards and ethical principles required by academia. Although our journal was awarded the label in May 2015, shortly after the certification program was initiated, the internationally recognized scholarly standards for review have been our practices since the journal was launched in 2005.

Further, *Human Technology* strives for high quality in a number of ways. First, our editorial policy and review process are clearly transparent, documented throughout our Web pages.⁸ Additionally, we seek out reviewers who are experts in their fields and who represent geographic diversity. Finally, the editor in chief and the managing editor, supported by the editorial board, are actively involved in the various phases of submitted manuscripts on their way to becoming articles.

The fact that *Human Technology* is an OA journal with no APC offers benefits for individuals at all stages of the scholarly research cycle: authors, researchers, universities, and

research funding agencies. For potential authors, it is a journal of high quality, but with no author fee. As articles in the journal have no embargo, the ideas and results presented in articles are immediately available for researchers via the journal's website. The interdisciplinary journal is a platform for examining the relationship of humans and technology and entering in dialogue with other researchers. For universities and research institutes, which struggle with tight budgets, the journal gives students and researchers access to current research without subscription fees. All these benefits are particularly important for universities in developing and emerging-market countries, who have traditionally been consumers of innovative research rather than contributors to the worldwide discussion. Finally, *Human Technology* can serve as a quality OA dissemination partner for research reporting of innovations and new knowledge generated within funded research projects conducted in multiple venues around the world.

This Issue's Open Access Articles

This autumn issue of *Human Technology* continues the ongoing commitment to OA publishing. This second issue of Volume 11 comprises three original articles, a book review, and our biennial acknowledgement of the contributions of experts from many fields in reviewing papers under consideration for publication in our journal.

In the first paper, **Carolyn C. Matheus and Justin Svegliato** present OpenSR, a stimulus–response testing framework with a graphical user interface. The development of the software was precipitated by an identified need of researchers from many disciplines to have access to such testing frameworks but who lacked either the ability to pay licensing fees or the programming know-how to create a system independently. OpenSR is open source, extensible, and platform independent. The testing framework clearly has much potential.

The article by **Miia Ronimus and Heikki Lyytinen** continues examining digital game-based reading acquisition within the context of the reading program GraphoGame, the focus of the May 2014 thematic issue of this journal. Here they compared outcomes of the reading game used in home and school environments. They showed that children who played GraphoGame at school were more engaged and used it more frequently than players at home, although parents do play a role in encouraging learning through educational games at home. The results highlight the need to further study the role of parents and teachers in game-based learning and student engagement and enjoyment, particularly in games designed for the home environment.

Gideon Mazambani, Maria A. Carlson, Stephen Reysen, and Christian F. Hempelmann studied the spread of memes in virtual communities. Their definition of meme is wider than in popular Internet culture. Following Richard Dawkins (1976), they define a meme as a unit of cultural transmissions or a unit of imitation. Their results, stemming from an analysis of four topic-related Internet forums, confirm that meme topics in line with the focus of the forum are more likely to spread than those inconsistent with the group's focus. However, their results also challenge previous views of the role of low-status group members in the spreading of memes.

A look at the growing contributions of technology for improved understanding of culture in human cognition and intercultural interaction frames the review of the book *The Intercultural Mind: Connecting Culture, Cognition, and Global Living*, by Joseph Shaules. **Barbara J. Crawford and George F. Simons** evaluate the insights presented in the book from their unique perspectives, Crawford as an academic and Simons as a long-time intercultural

trainer. They conclude that Shaules' book provides excellent evidence that ongoing technological advances in human brain and biological sciences can enhance theorizing, research, and application of self- and other-focused understanding of the role of culture in perception, cognition, and behavior and in providing interventions and development to improve global citizenry.

As editor in chief, I am honored and grateful to thank the scores of experts from many fields around the world who graciously have volunteered their time and knowledge in assessing manuscripts submitted to *Human Technology* for publication consideration. As is typical with any quality journal, only a fraction of papers submitted to *Human Technology* make it to review, and even fewer receive confirmation of quality and contribution from the experts who kindly accepted the invitation to review the paper. The scientific community relies heavily on the review process as part of bringing useful and significant research into the literature of many fields. So, in addition to the public acknowledgment here for the commitment these individuals have taken on to maintain high standards of scholarly publishing, I personally extend my thanks to each individual who has contributed to *Human Technology* in 2014 and 2015.

ENDNOTES

1. In the green model, a researcher publishes in a traditional print journal, and the publisher grants him/her the right to store the final peer-reviewed and approved article in the repository of their university or in a field-specific repository. At the University of Jyväskylä, the JYX repository (jyx.jyu.fi) serves this archival purpose for the university's researchers as well as for *Human Technology*. The green model can be costly to the university because its library must still purchase access to traditionally published journals, and such subscription prices can be expensive. Another drawback in this model is that, in some cases, a publisher may not grant immediate access but instead stipulate a 6-month to 3-year embargo on access to the article.
2. See https://ec.europa.eu/research/science-society/document_library/pdf_06/recommendation-access-and-preservation-scientific-information_en.pdf for the European Union's Commission recommendation of July 17, 2012, regarding access to and preservation of scientific information.
3. See the Directory of Open Access Journals [DOAJ] at <https://doaj.org/about>
4. See <http://scholarlyoa.com/individual-journals/> for the list for Jeffrey Beall's list of predatory journals
5. See <http://scholarlyoa.com/2015/01/02/bealls-list-of-predatory-publishers-2015/> for a summary of the increase in predatory publishers and journals.
6. See <http://www.tsv.fi/julkaisufoorumi> for information on Finland's Publication Forum, available also in English.
7. More information on this sufficient peer-review practices certification is available at <http://tsv.fi/en/services/label-for-peer-reviewed-scholarly-publications>
8. See <http://www.humantechnology.jyu.fi/submission/policy.html> as an example on the details on *Human Technology*'s peer review process.

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Human Technology: An Interdisciplinary Journal on Humans in ICT Environments
 ISSN 1795-6889
www.humantechnology.jyu.fi