

Humanities and social science journals: a pilot study of eight US associations

Mary WALTHAM

ABSTRACT. *The paper summarizes the findings of a pilot study for the National Humanities Alliance, including the methodology, research tools, analysis, and initial conclusions about the publishing business of eight association published humanities and social sciences journals in the context of a move to an open access (author/producer pays) publishing model. The eight disciplines represented by these journals are modern languages, history, religion, economics, sociology, anthropology, politics and statistics. Specific tools were developed for the study to enable like-for-like comparison of the journals. Detailed information on current trends in revenue, costs, and surplus is included. Significant differences between HSS and STM journals are reviewed. Open access to research articles on publication as the 'gold' author/producer-pays approach would not be sustainable for this sample of HSS journals for reasons articulated in the report. Further studies using the tools and methodology developed are required to broaden and confirm these results.*



Mary Waltham

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Introduction – why?

The National Humanities Alliance (NHA) scholarly communications task force wanted to develop a framework for analyzing real and current business data for a sample of the association journals published within humanities and social science (HSS). The study objective was to build and test some tools and methods using information on costs and revenues from a sample of HSS journals at a pivotal time when financial models across journal publishing are changing. The results could then be used to make an initial assessment of the effect of a shift to the author/producer-pays open access (OA) business model on these journals. The project we defined and implemented was driven by the observation that there is considerable emphasis within scholarly journal publishing discussion on scientific, technical and medical (STM) journals and relatively little on HSS journals. For example, the Thomson Reuters Journal Citation Report (JCR®) coverage of HSS is less deep and comprehensive (1,800 journals) compared with the STM disciplines (6,400 journals).

What?

The journals selected for this initial study covered a broad range of subject disciplines with 'humanities' represented by modern languages, history and religion and 'social sciences' by economics, sociology, anthropology, politics and statistics (Table 1). All the journals are available online as well as in print; five of the journals are published quarterly, the remaining three are published five or six times per year. None were selected or pre-selected by me or by the NHA task force.

Initial observations

The journals included in this study were dif-

Table 1. The associations and journals participating in this study

Publisher	Title	Frequency	Business/ funding model	Versions	Page/trim size	Content	Online hosting by	Self/ co-published?
American Anthropological Association	<i>American Anthropologist</i>	Quarterly	Subscriptions and display advertising	Print (P); print & online (P&O) and online only (O)	8½" × 11"	Peer-reviewed and other editorial material; book reviews, meeting reports	Wiley Interscience	Co-published with Wiley Blackwell
American Academy of Religion	<i>Journal of the American Academy of Religion</i>	Quarterly	Subscription revenue (institutional subscriptions), consortia non-subscription revenue (sale of individual copies and back issues, digital archive revenue, secondary rights, advertising revenue)	P&O	6" × 9"	Peer-reviewed articles, book reviews, advertising	OUP	Co-published with OUP
American Economic Association	<i>American Economic Review</i>	Quarterly	Memberships, subscriptions and site licenses; subsidized by EconLit, CCC, PPV & job advertisements, article submission fees	P&O	7" × 10"	Peer-reviewed articles, meeting reports and association financial information	Atypon	Self
American Historical Association	<i>American Historical Review</i>	5 times/year	Subscriptions, membership dues, advertising, and rights and permissions revenues	P&O	7¼" × 10¼"	Peer-reviewed articles, book reviews, letters to the editor, advertising	Atypon through University of Chicago Press	Co-published with University of Chicago Press
American Political Science Association	<i>American Political Science Review</i>	Quarterly	Advertising and subscriptions from individual members, institutional subscribers and consortia	P&O and O only	8.25" × 11"	Peer-reviewed articles, editors notes, letters to the editor, perspectives	CUP platform	Co-published with CUP
American Sociological Association	<i>American Sociological Review</i>	Bi-monthly	Subscriptions, site licenses, subsidy from endowment, grant, etc. Subscriptions (members and libraries), online advertising, online database royalties (e.g. EBSCO, JSTOR), document delivery, mailing lists, reprints	P&O and O only	7" × 10"	Mostly peer-reviewed articles, with occasional editors' notes and comments/reply	Ingenta	Self

continued

Table 1 – continued

Publisher	Title	Frequency	Business/ funding model	Versions	Page/trim size	Content	Online hosting by	Self/ co-published?
American Statistical Association	<i>Journal of the American Statistical Association (JASA)</i>	Quarterly	Individual and institutional subscriptions revenue; site-wide and individual licenses	P&O and O only	8" x 11"	Peer-reviewed articles and book reviews	Ingenta; Atryon Jan 2009 on	Self
Modern Language Association	PMLA	6 times/year	Members' dues and other association income, including revenue from library subscriptions to the journal, and advertising	P&O	7.5" x 10.5"	Peer-reviewed articles, invited pieces, letters to the editor, professional information	Atryon; the journal's archive also appears on JSTOR	Self

ferent from each other and most STM journals in a number of fundamental ways. Where appropriate, I compared this group of eight HSS journals with the 13 STM journals included in the JISC (2005) report which used a similar method of analysis and for which the data are publicly available. Examples of the differences shown by these HSS journals compared to the STM journals include:

- peer-reviewed content is lower (average 62% of pages);
- peer-reviewed article length is longer (average 19pp.);
- highly selective (flagship status); five of the journals published less than 10% of the articles submitted to them;
- number of advertising pages published was surprisingly high, given the journal's frequency;
- authors of journal content are largely from the USA where the associations are based (82% in a small random sample);
- speed of publication is slower.

Methodology

The methodology for this pilot study involved the less than simple task of bringing together journal business information for the eight journals in consistent and comparable formats over the most recent three complete years (2005–07). We could then see the nature and scope of the differences and similarities and understand trends in costs and revenues as well as surplus over time. Of course, we would have liked to have information for more than three consecutive years to follow trends longitudinally, but my experience from previous analyses is that the considerable change in journal financial records over time makes such analysis over longer time spans exceedingly difficult.

In order to gather the data used in the cost and revenue analysis in the report, two specific templates were developed for the study and provided to each publisher participant at the beginning of the study. Data collection was completed in the four weeks allocated within the study timetable

The author and reader template (see Appendix 1) provided input to the study

from each publisher on numbers of subscriptions by type including consortia, journal pricing, pages published (advertising, peer-reviewed, non-peer-reviewed) and data on numbers of research articles submitted and published over the three years.

The profit and loss template (see Appendix 2) provided quite granular information on sources of revenue for each journal over the three years. It also required a thorough breakdown of where and what costs are incurred in publishing each journal. Participants were explicitly requested to include *all* the costs of publishing their journal, i.e. the direct and indirect costs. To complete a set of true cost accounting figures for each journal required sound overhead allocation methods by each participating publisher. In many cases I worked directly with the finance or operations person responsible within each publisher to achieve this goal and the methods used are described in the report.

All of the information requested is proprietary and was treated in utter confidence even within the context of meetings and exchanges between active members of the participating publishers. Such an approach is essential and of course leads to data quoted in the report that is built on 'average' and 'mean' numbers which often do not reflect the true differences and trends hidden within the primary data. However, the purpose of this initial study was to see how far we could push the templates and what broadly comparable data would emerge. For these purposes the methodology was successful.

Results

Current performance

Member circulation was flat across the period, most of these associations provide a printed copy of the journal as one benefit of membership and so the flatness of this circulation reflects an overall stability in their membership base. This has often not been the case in recent years within STM societies and associations where membership numbers have been falling. Total institutional subscription numbers reported

increased by 1.8% over the three years with a fall in print subscription numbers more than compensated for by an increase in online, and print with online.

Journal costs and revenues were analyzed on a per-journal and per-page basis and showed wide differences in the cost base for the group of eight journals in this study. Cost per page published in 2007 ranged from \$184 to \$825 (average \$526). In the report I make a rough attempt to remove the variable costs of print and this resulted in costs falling to a range from a per page cost of \$90 to \$652 (average \$360). Total journal costs increased by a modest 6% over the three years. Alongside this, revenue increased by 10%, the bulk of this increase coming from institutions. Since the average publishing cost per page remained remarkably stable the result was an overall increase in the net margin per page.

The number of articles published remained stable; these journals had quite strict page number allocations and stayed within them.

Subscription revenues accounted for 84% of the journal's total income and as the major source of revenue for the journals it increased by \$546,000 (+8.5%) across all the journals combined, over the three-year period.

Advertising income had grown steadily over the three-year period for five of the publishers that accept advertising (and has fallen for the remaining two). The level of print advertising at some 9% of revenue and representing 8% of pages published in 2007 for a sample of quarterly print journals emphasizes their visibility *in this version* to the community served. Print advertising was a revenue line of \$27,000 or more in 2007 for seven of the eight publishers and represented from 4% of revenue for one journal to 45% of revenue for another with the largest circulation. None of the publishers was selling online advertising although the publisher of the largest circulation journal reproduces all the print advertising in their online version.

Surplus or deficit

In measuring overall journal publishing per-

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formance, generation of a net surplus/profit year on year is viewed as one sign of success in addition to other indicators such as the number of high quality submissions and the Impact Factor. Oxford University Press explains the particular position for a university press, which this group of associations agreed is typical of a not-for-profit publisher:

For (any journal) to remain viable we, the publisher, need to receive sufficient revenue to cover both direct costs and indirect costs. In addition, we need to make a surplus, which, as a university press, we reinvest into further publishing developments, and directly into the academic community via contributions to our parent university.

Any exploration of an alternative business model for HSS journals which may permit broader access to the scholarly content must presume that model is, or will become, financially sustainable so that the society or association and the journal continue to thrive.

The eight journals are managed and used by the societies in quite different ways, at one end to generate income for the association and at the other as a community building tool for members. Differences in business philosophy drive financial performance at the individual journal level.

Open access

A number of routes to OA publishing for a journal have been described exhaustively by many authors and contributors to the scholarly publishing literature. This study set out to understand specifically whether the so-called 'gold OA' route with the producer of the research paying the publication fees was a viable option. Such an approach has been adopted by some publishers of gold-OA-at-birth journals in STM, such as PLoS and BioMedCentral, and many publishers are experimenting with this as a hybrid OA business model where a fee is charged if and when the author can and will pay it. One of the journals in this sample of HSS journals had already been providing their research articles at no cost to users or to authors, and in parallel their institutional subscriptions had been falling; the remaining seven jour-

nals did not offer OA through author payments during the period under review.

For this set of HSS journals the figures derived for cost/page published do confirm that an immediate switch to the OA (author/producer pays for publication of their peer-reviewed article) publishing model being deployed and experimented with more broadly within STM publishing would not be sustainable for this group of journals, if author fees are expected to cover the publishing cost/article. Even if authors paid a per page charge related directly to the costs of their own article, the length of article in these journals (average 19 pages) and cost per page (average \$526 with print and estimated at \$360 without) make this prohibitive even if the costs of print are removed. Longer articles are characteristic of these journals as is the relatively high proportion of non-peer-reviewed content, and both of these features mean that the so-called 'gold' approach to OA that requires author/funder payment to cover costs would not be sustainable for these particular journals either on a case-by-case basis or when all their costs are averaged. In addition, the volume of *non-peer-reviewed* content means that author fees cannot adequately cover the publishing costs of the entire journal as currently published.

Archiving of peer-reviewed research by authors in an online repository is another route to OA and is often described as 'green OA'. For the final edited article to be available by 'green OA' publishers must permit authors to self-archive their final published article in an institutional or subject-based repository, and so the scholarly content is available free even if the journal requires a subscription. This approach is also under active experimentation.

Funding agencies globally are mandating OA for the research they support, and by February 2009 there were 31 funding agency mandates in 14 countries, and 27 university mandates in 16 countries. By October 2009 there were over 100 OA mandates. All funding agency OA mandates allow delays or an embargo period between the publication of a work and its OA release to the public.

The appropriate length of an embargo before permitted posting to an OA reposi-

an immediate switch to the OA publishing model would not be sustainable for this group of journals

tory is a matter requiring rigorous review. It is a central discipline-specific question due to differences in research article uptake and use by the research community. At present all medical funding agencies with OA mandates use 6-month embargoes, except the NIH, which uses a 12-month embargo. An EU pilot project uses different embargo periods for different fields, ranging from 6 to 12 months. The European Research Council currently uses a 6-month embargo but says it is 'keenly aware of the desirability to shorten' it.

Given the longer lifespan of active use of much research in HSS compared with STM (and especially biomedicine) the length of the embargo period before deposit of research articles in an OA repository is a key concern that requires further investigation. Accepting the embargo periods that are becoming established for biomedical journals, across HSS journals, could seriously damage and threaten the sustainability of these journals.

Data available on journal publishing economics

Most of the published studies on journal economics focus squarely on STM or a specific field within it. There is only a small amount of primary data and information available about the publishing economics of HSS journals, and with the exception of this report, much of it seems out of date. The rather jaded view presented informally by some agencies and individuals is that discussions of a new study gathering together real data from publishers are always derailed by the feeling that publishers would be unwilling to share it, or would share only selectively. This is plainly not true for this study. Others remark that publishers rarely divide things up or describe things in the same way, so any comparison is not valid. The methodology and templates used were devised to prevent such a result for this study.

Factors affecting publishing costs

Publishing costs are affected by a range of factors particular to a journal within a discipline. The average cost to publish an

article/page within a scholarly journal will depend on a number of factors, which have not been addressed in much of the literature on the topic. These include the overall submission and thus rejection rate: the higher the rate of submission, the higher the cost per published article because increased numbers of submissions and rejections take time and money to handle. Length of article: long articles cost more to publish than short articles since content creation costs are driven by volume of content processed. The number and complexity of mathematical typesetting and special characters, figures and illustrations and the amount of colour within articles has an impact on costs because the more of any of these, in general, the more expensive the article. The additional step-up of the costs of publishing online as well as in print pre-date this study, but include the technological infrastructure to host and distribute an online version and the need for more technically qualified staff to work with the online version. Add to this the publishing support costs of marketing and selling an online version globally to, for example, library consortia and many small society and association publishers become overwhelmed and decide to partner with a commercial or not-for-profit publisher who can manage and implement much of the complexity associated with the production and sales of the online version.

Non-cash contributions from academia

An assessment of non-cash costs was not within the scope of this study but at the workshop held with study participants in December 2008 there was discussion of the numerous and considerable in-kind contributions made by universities and by faculty to support the scholarly journals infrastructure and operations.

Academic library subscriptions and member copies

Many scholarly publishers rely heavily on institutional subscription revenue to support their journals. Institutional sales subsidize association member copies. The publishers in this study felt quite strongly that a printed copy was an essential regular physical

accepting the embargo periods that are becoming established for biomedical journals, across HSS journals, could seriously damage and threaten the sustainability of these journals

reminder to members of the value and community of association membership.

Retaining print

Revenues from the print version deliver a considerable proportion of the surplus generated by the journals included in this study and I made a speculative assessment of the impact of removing print revenues and costs from the group of journals. The result would be a fall in net surplus. HSS readers use online but, especially within the humanities, and unlike their counterparts in a growing number of science disciplines, they continue to use the printed version and need access to resources physically on the library shelves.

Journal pricing

For many of these publishers, online pricing does not yet reflect the broader usage and utility of the online version; rather it is based on the original print version and so is undervalued. Associations publishing scholarly information often focus on keeping the cost to the library down and this is especially evident within HSS. In 2007 six out of the eight journals in this study charged less than \$270 for each bundled print and online institutional subscription to their journal. Presented another way, for a total price to an institution of \$1,301 these six journals delivered 9,610 pages in print and online versions, which is an average of 14 cents per published page. (The average price/page for STM journals in the JISC study was 43 cents per published page at 2004 prices.)

Data collection and confidentiality

Providing the detailed financial and circulation information to allow the cross-publisher comparison central to this study required considerable staff time and effort. Even this pilot study, which focused on a small and committed group of associations, ran into issues of the political and administrative will to provide all the data requested. In any future work it will be essential to require at the outset not only an explicit commitment to provide specific types of data by individual societies and associations but also their publishing partners.

The analysis cannot be perfect and so in approaching this study we considered and used the best achievable measures that are useful and replicable.

Further research

This study focused on eight journals published by eight association publishers in HSS. Because of the limited sample size, care should be taken not to generalize very broadly. The results, however, may be representative of other journals in HSS, and further studies are needed to confirm these results.

Further studies could focus on a broader range of disciplines within HSS and thus more journals. A larger dataset composed of more journals from small, medium and large societies and associations within disciplines represented here (and others) would provide a more accurate basis for the investigations listed above. Data giving ranges of journal costs and revenues by discipline, frequency, extent and circulation will most accurately reflect the true complexity of supply-side costs and revenues.

Some comparison between single-journal and multi-journal publishers and, within those groups, between those that self-publish and those that partner with a publisher, would help considerably to clarify the true economic picture here. Only through a larger-scale analysis can we develop a range of options to enable the broadest access to scholarly information in the humanities and social sciences going forward.

A multi-title, multi-publisher study would enable some segmentation by discipline and by features of the publisher and the journal. The sample needs to be large enough to define the desired market segments and so is representative, but is not so large that the costs are prohibitive and results simply repetitive. Gaining the trust of the society and association publishers involved in the next stage of work and building vigorous participation of a sufficiently wide sample to provide a broad and representative picture across types of publisher and journal, as defined by the sampling framework, will be a key success factors.

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Appendices

Appendix 1: <http://dx.doi.org/10.1087/20100210>

Appendix 2: <http://dx.doi.org/10.1087/20100211>

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Complete documentation of sources is available with the full report published in the *Journal of Scholarly Publishing*, 41(3): April.

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Mary Waltham

184 Springdale Road

Princeton, NJ 08540, USA

Email: mary@marywaltham.com

Website: www.MaryWaltham.com

Mary Waltham founded her own consulting company in 1999 to help international scholarly publishers confront the rapid change that the networked economy poses to their traditional business models and to help develop new opportunities to build publications and services that deliver outstanding scientific and economic value.