

Flipping a Journal to Open Access

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<http://dash.harvard.edu/handle/1/4322572>

Mark Rowse was the CEO of Ingenta when Paula Hane interviewed him for *Information Today* in December 2003. During the interview he sketched an elegant idea:

Imagine a publisher that has already licensed content to all the library consortia in the U.S. The publisher could, at a stroke, say that the license will now confer rights for the academics in those institutions to submit content rather than to access content. The publisher would have successfully flipped its business model completely, to being an open access business. So I think it's possible to see a transition from where we are now to a completely open access world without fundamentally destroying the existing scholarly publishing business.

See Paula Hane, *Stable and Poised for Growth*, *Information Today*, December 2003.

<http://www.infotoday.com/it/nov03/hane2.shtml>

<http://www.earlham.edu/~peters/fos/2003/11/interview-with-mark-rowse.html>

Rowse didn't elaborate on the idea in the interview. But I was so intrigued when I reread it recently, that I started to elaborate it on my own. Then I had the even better idea to call Rowse and hear how he would put flesh on these bones himself.

I interviewed him by phone on September 6 [2007] and followed up by email when finishing my draft. This is his idea in my words.

Let's start with Rowse's assumption that a journal is selling subscriptions (licensing content) to all library consortia in the US. It's hard to imagine this happening, and we'll make the assumption more realistic in a minute. But let's assume it for now in order introduce complexity slowly rather than quickly. In fact, let's assume the journal currently sells subscriptions to all libraries (not just library consortia) in the world (not just in the US).

Let's also assume that all researchers are affiliated with a subscribing institution. But again, since this is false, we'll have to make the assumption more realistic later.

And let's make one semi-realistic assumption: that the journal charges no color or page fees. All the journal revenue is from reader-side subscription fees, and none from author-side fees.

Now what does it mean for a journal to "flip its business model"? There are four primary elements:

- (1) The journal converts from toll-access (TA) to open-access (OA). All the articles it publishes after that point are OA from birth.
- (2) It pays its bills by charging a publication fee on accepted articles. The fee is sometimes paid by authors, sometimes by the author's funder or employer, and sometimes waived.

The most straightforward version of Rowse's idea applies only to fee-based OA journals, but in a minute I'll consider some ways to adapt it to no-fee OA journals.

- (3) The journal waives the publication fee for authors affiliated with an institution that pays what used to be called a subscription.
- (4) The same institutions that formerly paid subscriptions pay the same amounts to the same journal, at least at first. But both the journal and the paying institutions put a new interpretation on the payments: they are now OA publication fees for a group of authors rather than TA subscription fees for a group of readers.

Under our simplifying assumptions, all researchers already have pre-paid access as readers, because they are all affiliated with institutions that pay subscriptions. After the journal flips its business model, they all have open access. From the standpoint of reader access, nothing changes except perhaps the number of clicks or keystrokes required for access. We shift from pre-paid access (access is priced but someone is paying on our behalf) to open access (access is not priced), but end users don't notice the difference except in the freedom from the hassle of authentication.

Likewise, all authors already have a no-fee route to publication, since the journal doesn't levy page or color charges. After the journal flips its business model, they all still have a no-fee route to publication, but for a different reason: the journal now charges author-side publication fees but waives them for authors from paying institutions, and we're supposing that all authors are affiliated with paying institutions. In effect, the journal adopts a fee-based model, but waives the fee for everyone. Hence, from the standpoint of author access, nothing changes either.

Nor has anything changed from the standpoint of journal revenue. The same institutions that formerly paid subscriptions are still sending the same amounts to the same accounts. We're just changing the name of the payments from subscription fees to publication fees. If the journal was breaking even, running at a loss, or making a profit before, then it's doing the same now.

(For now let's also assume that OA and TA publishing cost the same. However, if OA publishing costs less, which I believe, then the difference makes flipping even more attractive. The savings could show up in reduced fees for institutions, more frequent waivers for unsubsidized authors, or both.)

Flipping the business model is a simple act because, under our assumptions, it changes almost nothing. It's like changing the way we interpret an optical illusion. Suddenly the drawing that looked concave looks convex. Nothing has changed but our interpretation of what's going on.

But now let's move to a more realistic assumption in which pre-flip subscriptions cover only 70% (rather than 100%) of the world's researchers. Under the new assumption, 100% of researchers have no-fee access to the pre-flip journal as authors, but only 70% have pre-paid or no-fee access as readers. In this world, flipping the business model will change nothing for the lucky 70% affiliated with fee-paying institutions: they will still have no-fee access as readers and will still be able to publish in the journal without facing a publication fee. But the flip will significantly change things for the 30%: they will gain no-fee access as readers, for the first time, and they will face publication fees as authors, also for the first time. As readers they will see access barriers fall, and as authors they will see them rise. The percentage of readers with no-fee access will rise from 70% to 100%, but the percentage of authors with no-fee access will drop from 100% to 70%.

I picked the numbers 70 and 30 out of a hat. For a journal with much lower circulation, say, reaching only 5% of the world's researchers, then the flip would cause much larger disparities. The flip would remove access barriers for 95% of readers and add publication fees for 95% of authors.

Even under realistic circulation numbers, nothing will change for the journal, at least at first. If the revenue it had before was adequate (or inadequate), it will still be adequate (or inadequate). But after the flip, the journal may notice some drift. Some institutions that formerly paid subscription fees may not want to pay publication fees. They may decide that their faculty don't publish in the journal often enough to justify the expense. And conversely, some institutions that formerly didn't subscribe may want to start paying publication fees. These losses and gains may not cancel each other out.

What kinds of journals are best situated to flip their business models without losing revenue? If a journal has roughly as many authors as readers at subscribing institutions, then those institutions will be most likely to continue their payments after the journal flips, and therefore to keep the journal revenue at pre-flip levels.

To see the logic of this, imagine an extreme version of the opposite situation. If all a journal's readers are at Harvard and all its authors at Stanford, then flipping would be attractive to Harvard (it could stop paying and still have free access for its readers) but unattractive to Stanford (it would have to shoulder the whole burden alone). However,

if an institution has roughly as many authors as readers, then it's likely to see the value in paying for author uploads instead of reader downloads.

The basic idea remains simple even if we make the math more complicated and realistic. For example, if there are fewer authors than readers overall, and hence fewer authors than readers at the average paying institution, but if the publication fee per author is higher than the subscription fee per reader, then it still follows that the more that reading and writing institutions overlap, the more likely it is that the paying institutions will think it worthwhile to keep paying after the flip.

For most well-established, high-quality journals there's already a good match between the institutions where readers are located and the institutions where authors are located. For them, the flip can promote research and protect revenue at the same time.

If the number of authors or readers at an institution grows, that will not break the match. Only if the number of authors declines will that undermine the match and make the institution less willing to pay. But Rowse points out that the same is true today. If a university closes down a department (reducing both authors and readers in that field), then it's less likely to keep paying for journals in that field.

It's easy for a journal to measure the extent of the match between its reading and writing institutions. Simply calculate the percentage of published authors who are affiliated with subscribing institutions. Even journals that are quite sure they would never flip their business model should do the calculation. The door may be open, and that's a fact worth knowing.

Society journals with a good match between their reading and writing institutions may worry that flipping their business model would eliminate one incentive for individual scholars to join up. Rowse points out that they could replace the old incentive (a free or discounted journal subscription) with a new one, such as fast-track review. I can add another possibility, inspired by the American Society of Plant Biology: waive the publication fee for society members who are not affiliated with paying institutions.

On the other hand, the smaller the overlap between the reading and writing institutions, or the closer the journal gets to the Harvard/Stanford (read-only / write-only) model, the more it is likely to lose paying institutions after the flip.

Here's where we see the advantages for a publisher to flip many journals at once, which we could call a bundled flip. If a publisher flips many journals at once, and waives the publication fees at all the flipped journals for all authors at all paying institutions, then more institutions would have an incentive to pay. The more journals in the bundled flip, the more the reading and writing institutions will overlap, and hence the more the reading/subscribing institutions will have an incentive to keep paying. Likewise, the more journals in the bundled flip, the more nonpaying institutions will have an incentive to start paying. For publishers of many journals, the more they are

willing to flip at once, the more likely it is that post-flip business would be better than pre-flip business.

The door may be open for most successful TA journals. If there's already a good match between a journal's reading and writing institutions, then it can flip on its own. If not, it can flip as part of a suite of journals from the same publisher.

Rowse points out that the benefits of flipping are reserved for the bold. One advantage of a flip is to give up the overhead of TA publishing—print, subscription management, user authentication, licensing, and perhaps even marketing. If a publisher went halfway by flipping some titles and not others, or if a single journal flipped but kept its TA overhead in readiness to flip back, then it would not realize all the possible savings.

Finally, Rowse argues that bold journals or publishers willing to make the flip may be rewarded by a virtuous circle. Flipping will create OA, which will increase readership, which will usually increase submissions (from spreading exposure, rising impact factor, or both). If submissions increase, then more institutions will have an incentive to pay publication fees, which would increase journal revenue, permit more fee waivers, and/or allow the journal to reduce fees for everyone.

That's the idea in a nutshell. Here are some thoughts of my own.

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Flipping is attractive because it produces full OA in a way that can be safe for publishers. Even if you think that publisher safety doesn't matter, or that safe business models are already common, this is still a welcome new option.

Hybrid OA journals are also safe for publishers, since the publisher continues to receive subscription revenue while testing the market for fee-based OA. But hybrid OA journals generally have low uptake and produce little OA. Flipping could be at least as safe for publishers and more beneficial, since it would provide OA for every article in a journal. Moreover, some percentage of authors (namely, those affiliated with paying institutions) would face no publication fees.

Flipping also gives institutions an incentive to pay. Hybrid OA journals create no such incentive and leave most authors to pay publication fees out of pocket or plead for case-by-case subventions. That's clearly part of the reason why hybrid OA journals have such low uptake.

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Flipping also enjoys the general advantage that journal conversions have over brand new launches. When successful TA journals convert to OA, they bring their readership, reputation, impact factors, and prestige with them. They don't get caught in the vicious circle of needing good submissions to generate prestige and needing prestige to attract good submissions.

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It's possible to imagine an inverted hybrid journal: one that is OA by default but willing to publish TA articles for authors who couldn't pay publication fees. Flipping, however,

doesn't lend itself to these inverted hybrids. If a flipped journal wanted to publish some TA articles for authors who couldn't pay publication fees, it would have to support all the publishing overhead required for TA publication, cutting into the financial advantages of the flip.

A flipped journal with a good surplus could afford to offer an inverted hybrid option. But if it had a good surplus, then it could lower its publication fees or waive them more often. That would eliminate publication barriers for authors, make the inverted hybrid option unnecessary, and still assure that all its articles would be OA.

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The virtuous circle Rowse sketches is very likely. If journals find revenues going up after a flip, and use them to reduce fees or increase fee waivers, then they will continue to stimulate submissions and keep the circle turning.

Here's another side effect. Because different journals publish different papers, they compete much less for readers than they do for authors. If you need to read a certain paper, then it doesn't matter that another journal in the same research niche is less expensive or even OA. In a subscription world, this makes every journal a mini-monopoly shielded from the market forces that would normally make prices competitive and affordable. But in a world in which payments represent authors rather than readers, we can have a healthy market that keeps prices competitive. If a journal charges much higher publication fees than a journal of comparable quality and prestige in the same field, then submissions and money will go elsewhere, at least more readily than they do today for journals charging higher subscription prices than their peers. Flipping payments from reader-sponsors to author-sponsors will expose journals to price competition, for nearly the first time, and do so without making journals any more fungible or less distinctive than they are today.

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The CERN plan to convert TA journals in particle physics to OA is the closest thing I've seen to a Rowsean flip. In brief, the CERN plan is to get TA journals in the field to agree to convert to OA at the same time that the subscribing institutions agree to replace their subscription fees with publication fees, which CERN expects to be lower than the earlier subscription fees. Because CERN dominates particle physics the way no other institution dominates any other field, it was able to use its unmatched convening power to bring all the players together, make the case for the win-win logic of flipping, and create a consortium, SCOAP3 (Sponsoring Consortium for Open Access Publishing in Particle Physics), which is currently working out the details. The pre-flip planning assures participating journals that the institutions now paying will continue to pay after the flip. The lesson is to enhance the flip planning for a journal or publisher with this kind of wider disciplinary planning whenever possible. It will not only reduce risk for the journals, but improve the economics in the same way that a bundled flip creates more incentives for paying institutions than a single journal flip.

CERN

<http://www.cern.ch/>

CERN's OA plan

<http://open-access.web.cern.ch/Open-Access/>

My discussions of the CERN plan in earlier issues of SOAN

<http://www.earlham.edu/~peters/fos/newsletter/09-02-06.htm#cern>

<http://www.earlham.edu/~peters/fos/newsletter/12-02-06.htm#cern>

<http://www.earlham.edu/~peters/fos/newsletter/01-02-07.htm#2006>

It doesn't matter whether we see Rowse's idea and the CERN plan as the same or merely variations on a theme. Insofar as they differ, they show that there's more than one way convert TA journals to OA and keep revenue flowing from the institutions that formerly paid subscriptions. There may be an even larger family of solutions here awaiting exploration.

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Universities might act together to persuade publishers to flip their journals. If a consortium of universities now paying subscription fees would be willing to continue paying publication fees, they could approach a publisher and ask it to flip its journals. The lure for the publisher would be the assurance of large-scale participation. In return for this assurance, the universities could sweeten the deal for themselves by offering to pay (say) 75% of what they now pay, rather than 100%. This reflects the fact that increased participation increases publisher revenue and allows it to lower publication fees. Universities could make the deal even more appealing to publishers if they could recruit some non-subscribing institutions to join the consortium.

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There are a couple of ways in which a flipped journal could become a no-fee OA journal. This matters to me because the chief drawback to the flipping model, for real-world journals that don't already reach all researchers, is that it introduces publication fees for some percentage of authors (namely, those not affiliated with paying institutions), and many of those authors will not have funders or employers willing to pay the fees on their behalf.

One way to flip toward a no-fee journal is to start with a standard flip and rely at first on publication fees. But the journal could then solicit subsidies from institutions with more authors than readers or from institutions wanting the prestige of hosting the journal. If the subsidies sufficed to cover its expenses, then it could drop publication fees and become a no-fee OA journal.

This is advantageous even if the subsidies don't suffice to replace publication fees. Any level of subsidy would let the journal reduce its publication fees, waive them more

often, or both. The more it reduced its fees, the more institutions it could find who would be willing to pay them. This could in turn create in a net increase in revenue, which would allow it to lower the fees even further.

If a journal looks for subsidies before rather than after the flip, and if it finds enough, then it could convert directly to OA without a flip. If it doesn't find enough, then it could flip, supplement its subsidies with publication fees, and keep its fees low while looking for additional subsidies.

Another variation is a double flip: first flip subscription fees to publication fees (download payments become upload payments), and then, sooner or later, flip publication fees to institutional subsidies (payments for specific articles or authors become payments to support general operating expenses). The second flip in this process is not as novel as it may appear. The Stanford Encyclopedia of Philosophy is in the middle of something very similar right now. To build an endowment to cover its expenses, it's asking institutions to make payments that resemble "flipped subscriptions": institutions make annual payments, as they would for subscription or publication fees, but when SEP has raised enough money, the payments stop and the encyclopedia is OA, no-fee, and self-sustaining.

Stanford Encyclopedia of Philosophy (SEP)

<http://plato.stanford.edu/>

SEP's fund-raising strategy

<http://plato.stanford.edu/fundraising/>

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For real-world TA journals that don't already reach all researchers, flipping will remove fee barriers for all readers and add fee barriers for some authors. It will always be a net gain for researchers qua readers. Whether it's a net gain for researchers qua authors will depend on at least five variables: (1) the number of authors not affiliated with paying institutions, (2) the size of the publication fee facing those authors, (3) the willingness of funding agencies to pay those fees for grantees, (4) the willingness of universities not paying institution-wide fees to pay fees for individual faculty on a case-by-case basis, and (5) the willingness of flipped journals to waive their fees in cases of economic hardship. Depending on the values of these variables, some flips will impose fees on a majority of authors and some will impose fees on a minority. In principle, both kinds of flip could be safe for the publisher.

When high-circulation journals flip, they mitigate this problem by reducing the number of authors in category #1 (authors not affiliated with paying institutions). When low-circulation journals flip, they aggravate this problem by increasing the number of such authors.

This problem is the only drawback I can see to a flip. But publication fees needn't be higher at flipped journals than at born-OA journals and OA converts using the

publication fee business model. In fact, the Rowsean virtuous circle may allow flipped journals to set their publication fees even lower. In addition, flipped journals would waive their publication fee for all authors from paying institutions, and the number of authors receiving waivers should be well above average for the class of fee-based OA journals, equalled only by the few with successful institutional membership programs. In any case, it would be inconsistent to welcome the launch of new fee-based OA journals and not welcome flipped journals.

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In short, flipping has many attractions, and its only drawback is shared by other fee-based OA journals (which comprise about 47% of all OA journals) and may be less burdensome than at most other fee-based OA journals. I definitely like the idea enough to hope that some journals and publishers will try it out. We could all learn more from those who did, and while we were learning, the journal would be OA.

Where are the journals and publishers curious enough to do the math and bold enough to take the first steps?

Postscript

Mark Rowse left Ingenta in October 2005, though he is still on the board. The company has been called Publishing Technologies since February 2007 when it merged with Vista. In addition to serving on the board, he's involved in various publishing startups and thinking about how to bring Web 2.0 thinking to academic publishing. I interviewed him once before (August 8, 2002), on OA topics but not on flipping business models.

<http://www.earlham.edu/~peters/fos/newsletter/08-08-02.htm#rowse>

In the next issue of SOAN [November 2, 2007], I published the following update:

<http://www.earlham.edu/~peters/fos/newsletter/11-02-07.htm#followup>

In my article last month on flipping subscription journals to open access, I gave two partial examples: CERN's SCOAP3 project and the Stanford Encyclopedia of Philosophy. This month I've got two follow-ups.

- (1) I missed a good one and thank Jan Velterop for reminding me. In June 2007, Springer struck a deal with the Dutch library consortium, Universiteitsbibliotheken en de Koninklijke Bibliotheek (UKB), allowing the UKB's subscription payments to count as publication fees on behalf of faculty affiliated with UKB member institutions. It's only a partial example because the journals don't become OA. But the new articles by authors at UKB member institutions do become OA. For details and links, see my blog post for October 3 [2007],

<http://www.earlham.edu/~peters/fos/2007/10/more-on-flipping-journals.html>

BTW, since the UKB deal, Springer has struck a similar deal with the University of Göttingen.

<http://www.earlham.edu/~peters/fos/2007/10/springer-deal-with-u-of-gttingen.html>

(2) I described the funding model of the Stanford Encyclopedia of Philosophy only enough to show its similarity to (ahem) the second half of a two-flip conversion. As a result, I left out many details and probably left a false impression for many readers. SEP's Principal Editor Ed Zalta and Senior Editor Uri Nodelman wrote a good note to clarify the model. For details and links, see my blog post for October 4 [2007],

<http://www.earlham.edu/~peters/fos/2007/10/more-on-stanford-encyclopedia-of.html>