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2g Freemium Open Access

Change to 100 % Open Access has been slow. Boselli and Galindo-Rueda found that approximately 50–55 % of documents are openly available 3–4 years after publication (Boselli and Galindo-Rueda, 2016) although an industry report estimated that only about a third of all research articles published today are Open Access once embargo periods are completed (SIMBA 2016). For books, the adoption of Open Access has been snail-like. Searching the Directory of Open Access Books¹ shows that just 370 new titles were added 2015. Considering that Springer² alone publishes upwards of 4,000 new books annually it is probably fair to say that less than 5 % of all new scholarly books published in 2016 will be freely accessible online.

All stakeholders – yes, including publishers³ – agree that open access is a worthwhile objective. Yet, despite willing stakeholders and a plethora of funder and institutional mandates,⁴ the disappointing progress to 100 % Open Access suggests that the current models, like Green and Gold, cannot overcome what must be significant systemic friction in the scholarly communication process. If Green, Gold and other models (like Knowledge Unlatched for books, see chapter 2e) are not delivering results fast enough, is there another open access model that could overcome the systemic frictions more easily? Might this model be Freemium Open Access?

Freemium Open Access

The word “freemium” was coined by Jarid Lukin in 2006 in response to a challenge by venture capitalist Fred Wilson to coin a term to describe his favourite business model, which he described like this: “Give your service away for free, possibly ad supported but maybe not; acquire a lot of customers very efficiently through word-of-mouth, referral networks, organic search marketing, etc.; then offer premium priced, value added services or an enhanced version of your service to your customer base.” (Schenk 2011) In 2008, Peter Suber, an open access advocate, drew a distinction between open access which removed price barriers and open access which removed price and permission barriers. Borrowing from the software community, he described the former as *gratis* open access, and the latter as *libre* open access (Suber, 2008).

1 <http://www.doabooks.org/>

2 <http://www.springer.com>

3 <http://www.stm-assoc.org/public-affairs/resources/publishers-support-sustainable-open-access/>

4 <https://roarmap.eprints.org/>

Putting the two together, Freemium Open Access is a business model whereby a basic scholarly publication product is accessible online free of charge with other, ‘premium’, features and functionalities offered for sale. While it is likely that premium reader-facing services will produce the most revenue, premium services could be offered to any stakeholder in the scholarly communication system, the goal being to generate sufficient revenue to cover the cost of publishing and the provision of both free and premium services. In order to be *gratis* open access, the publication service must, as a minimum, give free online access to all the content.

The key to success in any Freemium business is to build a large audience for the free service and then persuade a proportion to choose to move up a value path to premium services. In the scholarly publishing context, there will be four categories of audience:

- Anonymous Free – readers who access the basic full text content service for free and remain anonymous
- Registered Free – readers who access the full text content and register for a premium service that is not charged for (e. g. an alerting service)
- Anonymous Paid – readers at institutions that subscribe to premium services
- Registered Paid – readers who choose to pay for premium services themselves or who register for personal services and are at institutions that subscribe to premium services

In the following table 1, some examples of value propositions for each audience category are presented:

Tab. 1: Example of what the value propositions for each audience category could be in a Freemium Open Access business model.

	Free Anonymous	Free Registered	Paid Anonymous	Paid Registered
Discover and Read all content	✓	✓	✓	✓
Share, embed content	✓	✓	✓	✓
Personal services (e. g. alerts)		✓		✓
Access to fully-functional e-editions (PDF, ePub, Excel etc)			✓	✓
Librarian services				✓

In addition to reader-facing services, premium services could also be offered to other stakeholders. For example, authors could be charged for services that make it easier to transform a manuscript into XML or for copyediting or funders could be charged for impact reports. To be clear, this is not double-dipping (charging twice for the same service) because different component parts of the total cost of publishing are being met by different actors – it would only be double-dipping if one part is being paid for by two actors.

Freemium is an agile business model designed to evolve over time. A feature that can be charged for today might become commoditized and free tomorrow. Figure 1 below shows how some value points, such as basic discovery, are already in the free zone while others, such as enhanced discovery, could be offered as premium services. The boundary between free and premium services moves outwards over time as innovation makes new premium services possible.

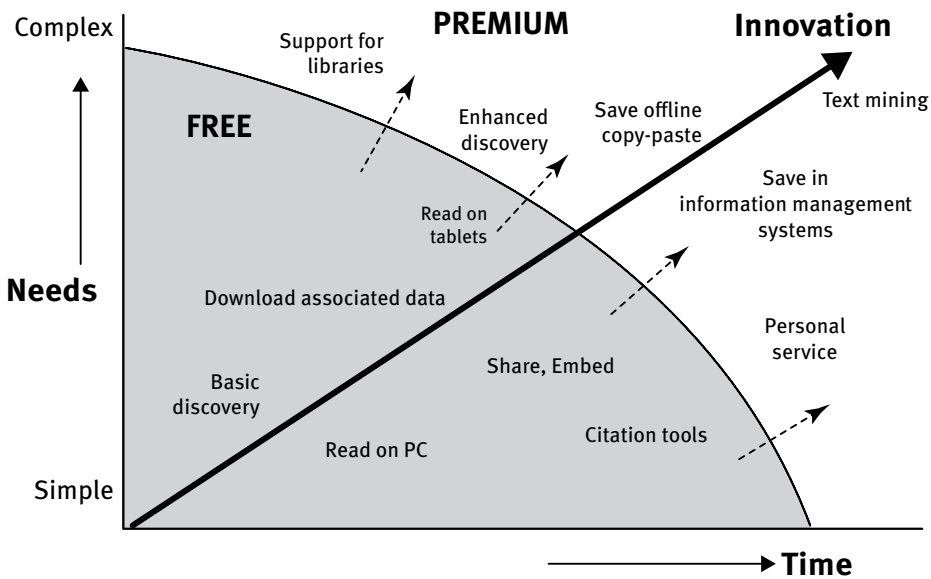


Fig. 1: Diagram illustrating how the boundary between what is free and what is premium could evolve over time.

Necessarily, this involves unbundling the scholarly publishing ‘product’.

Unbundling

As implied above, any Freemium business model must unbundle the overall product into different components because at least one component is provided free of charge, while others are charged for as ‘premium’ features.

The benefit in unbundling a product is that the price for each component or value point can be determined independently and thus the overall price becomes more transparent. Some traditional, value points might find that they are not very valuable after all and disappear – like airline food did with low-cost airlines – thereby reducing the total cost of providing the overall service.

Once a product is unbundled, not only does the product become more flexible and responsive to demand but different actors can pay for different value points. For example, in scholarly publishing, the provision of customer support and training for a publisher's platform could be charged to librarians independently of the provision of content capturing and other editorial services to authors.

Before the advent of digital, the transactional and overhead cost of unbundling a service was prohibitive; offering a bundle was more cost-effective. Since digital processes can be used to reduce transactional costs drastically, so unbundling becomes possible. Consider low-cost airlines: the arrival of digital allowed them to create a transactional system that allowed passengers to create their own product bundle, for example, adding checked luggage and seat assignment to the core product, the flight itself. This would have been prohibitively expensive to manage without digital transactional systems.

In the traditional 'closed access' subscription/purchase business model and in the Gold Open Access business model, all the value points provided by a publisher, regardless who benefits, are bundled into a single product that is paid for by one actor, with all other stakeholders getting a free ride. There are, of course, some exceptions such as journals that also earn revenue from advertising, but the principle remains: most stakeholders get a free ride.

Current efforts to move away from the traditional model seek to flip the entire cost of publishing to another stakeholder (or to another budget held by the same stakeholder), but there is little attempt to look for models that might share the costs across stakeholders. Is this one part of the friction that is slowing down the move to open access?

The scholarly publication process comprises a complex set of features and services for more than just the two main actors, the author and the reader; a publication enables other stakeholders (e. g. librarians, funders, educators, policymakers) to achieve their goals too (Anderson 2016).

A simplified diagram (figure 2 below) shows the various stakeholders in the scholarly communication process (in bold) and the various processes that connect the author to the reader. The processes include publishing and a supply chain where the article or book (or other published form) is placed from where it can be accessed by the reader over the long run. In parallel, there is a need for discovery systems to help the content find the reader and for utility tools, such as an ability to clip a citation, copy a diagram directly to Powerpoint, or share on social media. A process that is becoming more important, impact evaluation and reporting, completes the chain.

Some reader-facing services – such as aggregation, discovery and archiving services – are provided by intermediaries but these are often facilitated by, and therefore have a cost for, publishers, e. g. provision of quality metadata to discovery partners. Other stakeholders also rely on publishers for services – for example, librarians want long-term archiving and customer support services; funders want impact reports; policymakers want a knowledge-based economy. Understanding and deconstructing this 'system' into viable mini-bundles that make sense and are practical to market is key to developing a Freemium Open Access model.

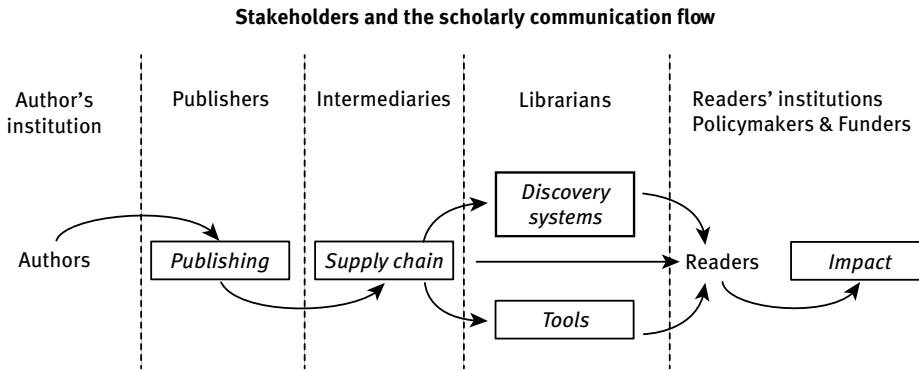


Fig. 2: Schematic diagram showing scholarly communication process and stakeholders.

Freemium Open Access, the example of the OECD

OECD is a member-owned intergovernmental organisation (www.oecd.org/about) which publishes the knowledge it generates annually in the form of around 400 books (including translations), 150 working papers and 300 datasets. It also provides publishing services for five other international organisations, which add another 800 books annually to the overall catalogue.

OECD's Freemium model gives anonymous free users unlimited access to a read-only version of every publication via a publishing platform, iLibrary (www.oecd-ilibrary.org), i. e. a *gratis* open access experience. Anyone with an internet connection can read the full text of each publication via their browser (including on mobile devices) and is able to view any associated data files. The free service includes the ability to share and embed the free version (whole publication, paper or chapter or table/chart) and to use the search and citation tools provided by the platform. All OECD datasets are available via a basic browser that allows users to browse, select, chart, extract/download current data; an API is available for machine-to-machine connections. In parallel, the platform offers a range of premium services for institutions and individuals. Premium services range from alerting services to fully-functional e-editions (PDF and ePUB) that can be downloaded and read offline; associated data files are available in Excel. Premium dataset services are provided in the form of an enhanced browser and subscribers can access archived datasets and a huge range of ready-made tables in Excel and other executable formats (saves users the time and trouble of making their own extractions). Subscribing institutions benefit from a range of support services, including training, and receive the usual set of metadata feeds and usage reports. Print copies are a premium service too.

At the time when OECD adopted a Freemium Open Access model for its publications in 2011–2012, a majority of the sales income for publication services (comprising

books, journals, working papers and datasets) came from subscriptions to the OECD iLibrary platform, only around 20 % of sales income came from single-copy sales and individual periodical subscriptions whether electronic and/or print. Online accesses to full text publications were of the order of 6 million annually (including accesses to Gold Open Access content).

At the end of 2016, accesses to full-text publications had grown to >20 million of which 15 % were at subscribing institutions, 85 % were to anonymous free users (proof, if it were needed, that there is a sizeable, unserved audience outside of subscribing institutions). Crucially, between 2012 and the 2016, the renewal rate among subscribing institutions remained at similar levels to that seen between 2008 and 2012 and the number of new subscribers was also at a similar level. In line with the evolving, agile nature of a Freemium business model, OECD is currently re-building the iLibrary publishing platform so that it is better adapted to Freemium Open Access, in particular to build an offer for Registered Free users.

There are a few examples of other Freemium Open Access publishers, notably Open Editions (www.openedition.org) who have more than 3 000 books and 430 journals on their platform and a business model very similar to OECD's. SpringerNature's announcement that it now enables authors and subscribers to post links to free-to-read versions of primary research articles from any of its 2300 journals anywhere, including social media platforms, repositories, websites, scholarly collaborative networks and via emails, is a step in the direction of freemium.

Freemium Open Access – the benefits

Freemium Open Access has some attributes that other open access models lack.

Freemium is better for readers

A Freemium publisher must keep the reader's needs front and central because financial sustainability is dependent on building a large free audience and offering attractive, premium, reader-facing services that are worth paying for. Other open access business models have weak or no incentives for a publisher to develop and invest in reader-facing services. Green Open Access, is inherently reader-unfriendly because it results in two versions (accepted manuscript/pre-print and version-of-record) of the same content being made available in two different places (repository and publisher platform) at two different points in time (embargos) and, in cases where a reader is not at a subscribing institution, it is impossible for the reader to know how the two versions differ. Gold Open Access places all the financial interest on the author-side, leaving publishers with little incentive to invest in reader-facing services or to build large audiences.

Freemium is better for intermediaries

Intermediaries provide valuable reader-facing services that publishers cannot offer or do themselves, for example, audience-building, customer support and comprehensive discovery and archiving services. As discussed above, most open access models have weak or absent feedback loops on the reader side. As a result, publishers using these open access models have little incentive to work with intermediaries offering reader-facing services. In cases where the intermediary earns a return by taking a share of subscription and sales revenue (for example, provision of audience-building and customer-facing services), the absence of a reader-facing business model leaves a question-mark over how these services will be paid for. This is illustrated by the challenges that surround getting open access books incorporated into the standard library discovery and catalogue systems.

Freemium maximises audience size

As discussed above, a Freemium Open Access publisher must build a large, free, audience if they are to have a chance of building a premium audience that is large enough to generate the revenues needed to meet the cost of publishing.

This requirement to maximise the size of the free audience is a unique feature of Freemium Open Access, no other Open Access business model rewards a publisher for maximising audience size (nor, indeed, does the traditional, closed-access, business model), but more than rewarding, Freemium's sustainability as a business model is dependent on there being the largest possible free audience for the content.

Some scholarly publishers will argue that their content is too specialised and 'niche' to be able to attract a large audience and therefore the potential pool of premium readers is too small for Freemium Open Access to be a sustainable business model. Yet, there are a couple of reasons why this view can be challenged. Many closed access journals survived with just a couple of hundred subscribers and book programmes have survived on a similarly small customer base. If open access is needed because of frustrations that the closed access business model is denying a sizeable audience access to content, then there must be a significantly larger audience out there, even for specialised content. That there is likely to be a significantly larger audience out there, even for the most esoteric content, is supported by the fact that the number of university graduates who, presumably are capable of reading scholarly content, has grown sharply over recent years. Today, the proportion of university graduates in OECD's population is just over 40 % (OECD) – that's 500 million people. Therefore, logically, the potential audience for scholarly content, however niche, is likely to be much higher than the few hundred reached via closed access business models. The OECD's own experience, as a publisher, described above, shows that there is a larger audience beyond the subscriber base. This is supported by others, for

example, Open Book Publishers⁵ report that they reach 20 000 readers a month for the 86 titles they've published and Nature-branded journals have seen an additional 2.2 million article reads in the 2 years since those with subscription rights were free to share read-only articles with their networks (SpringerNature, 2016). Clearly, there is a much larger audience for scholarly content than many assume.

Freemium provides richer impact reports

Increasingly, funders are requiring researchers to demonstrate that their research generates an impact. One part of demonstrating impact is to show that the results of the research have reached a large audience. As discussed above, Freemium Open Access is likely to generate a larger audience than other publishing models, whether closed or open access, and is therefore likely to generate a larger impact. However, there is another advantage for Freemium over other open access models. Freemium is better able to identify who accessed the research. One of the problems inherent with most open access models is that no-one can identify who has accessed the work and to what depth. This is because there is no requirement for user identification or registration for open access works – the work is free to access by anyone with an internet connection and there is no prior requirement to register or sign on for access rights. Whilst web analytics tools like Google Analytics can provide high-level reports on usage, including some basic geo-level data such as accesses by city or region, an open access publisher has no ability to report detailed usage by institution name, let alone by individual name.

By contrast, a Freemium Open Access publisher has for its premium users detailed registration information and can therefore generate usage reports for authors and funders. Since those who need to engage with the research in depth are more likely to be premium users (they are more likely to see the value in registering for premium services), a Freemium Open Access publisher will be able to identify and report on these highly engaged users for authors and funders.

Freemium lowers the change quotient

At the beginning of this chapter, it was suggested that, in view of the common desire among all stakeholders for open access, the slow progress actually seen suggests that there must be some frictions in the system that are preventing faster adoption. One explanation for the very slow 'pivot' to open access might lie in the challenges associated with change. As Peter Drucker put it,

⁵ <http://www.openbookpublishers.com>

Everybody has accepted by now that change is unavoidable. But that still implies that change is like death and taxes — it should be postponed as long as possible and no change would be vastly preferable.

Or, to put it another way, everyone would prefer that others change and would prefer to postpone any change themselves. In this light, it might be interesting to assess the ‘change quotient’ for the shift to open access. If what Drucker observed is true, the change quotient is going to rise with the number of stakeholders involved in adopting change. Taking the traditional, closed-access, publishing model as a baseline, let’s look at how many stakeholders need to change for each of the open access paths to succeed.

In the following table, a shaded ‘C’ cell indicates that the stakeholder must change some part of their traditional process for that model of open access to succeed; an unshaded ‘N’ cell indicates no change is needed.

	Green OA	Gold OA	Freemium OA
Author	C	C	N
Author’s institution	C	C	N
Funder	C	C	N
Librarian (reader-side)	C	C	N
Publisher	C	C	C
Reader	C	N	N

Looking at the shaded cells, it is clear that all stakeholders have to change some part of their process in adopting Green Open Access; all but Readers have to change for Gold Open Access to succeed; but *only* publishers need to change to deliver Freemium Open Access. Bearing in mind the number of unique actors in each stakeholder group, and realising that each of them must change their part of the scholarly communications process for the whole system to ‘flip’ to a new model, the change quotient is going to be very high indeed for Green and Gold Open Access. This conjecture that change is hard is supported by the fact that it has taken more than a decade for 779 to develop mandates and policies concerning open access (ROARMAP).

Conclusion

Freemium Open Access is a publishing model that meets the objective of making all scholarly content free to read online, i. e. it is a *gratis* open access model. The model relies for financial sustainability on being able to find a market for premium services that are provided on top of this basic, read-only, access to the full text of any publication.

Compared to other open access models, the comparatively little change needed by stakeholders for Freemium Open Access to be implemented would suggest that this could be a faster way to get all scholarly content open on a *gratis* basis. Whilst this falls short of the aspiration of those who drew up the Budapest Open Access Initiative⁶ in 2002, embracing Freemium as a short- or medium-term stepping-stone would at the very least make all scholarly content accessible to anyone with an internet connection quickly surely *the* key objective and buy time for stakeholders to work out how to finance, manage and deliver the changes needed for *libre* open access on a sustainable basis.

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⁶ <http://www.budapestopenaccessinitiative.org/read>