

Digital economics

In light of the discussion in the previous chapter it is clear that open access is a phenomenon embroiled in the fields of economics and value. However, systems of economics and value in scholarly communication/publishing are determined not solely in financial terms but also in the exchange of symbolic capital. There are, in fact, many different complex and intersecting social and financial economies of value that make up the landscape. Although interdependent, these systems can be broken down into questions of quality and value as socially ascribed and questions of finance in terms of labour value and capital (even if the latter are, also, social at their core). The first of these modes covers the aspects that make a journal or publisher prestigious and the economics that regulate this symbolic field. The second encroaches upon questions of finance, including, but not limited to, asking who pays how much for the labour of academic publishing.

In this chapter, I devote time to each of these issues in turn, beginning with a dissection of academic prestige, followed by a more thorough discussion of the assertion that scholars are well placed to give away their work. Given that humanities research is sometimes thought of outside the sphere of monetary exchange, often with no clear practical use-value, this entails an analysis of the commodity form of open-access research work, including the question of whether work that is given away for free assists in a decommodification of the research production of the contemporary university. I then move to examine the practical business models for gold OA and the evidence for a model of green in parallel to subscriptions. Finally, I look at the international contexts within which this discussion sits, given that the fear of isolationism exists alongside concerns

over the repercussions of national-level actions within global contexts. The purpose of this chapter is to address the problems of supply-side economics (academic prestige) and also the pragmatics of the demand-side crisis (affordability) so that, when I later approach the monograph in Chapter 4 and innovations to peer review in Chapter 5, the confluence of quality control and economics is explicit.

CULTURAL AND SYMBOLIC CAPITAL IN ACADEMIC PUBLISHING

Any academic in the twenty-first century knows that publication is important. It is important to communicate findings to other interested parties but it is also crucial for career progression. Indeed, in both the humanities and the sciences, publication forms the core unit of currency in the hiring, firing and promotion ladder. This has now reached the point where the executive editor for the humanities at Harvard University Press is united with a former editor of the *British Medical Journal* in the opinion that universities have ‘effectively outsourced to journals and publishers the function of assessing academic quality’.¹ However, regardless of whether one feels this to be over-stated, it is also clear to all concerned that this currency comes in different denominations and that these value units are not purely related to the size of the object. A single, smaller journal article in a top venue will be valued more highly by this process than a two-volume mega-tome put out through a notorious vanity publisher. Furthermore, as Michael Jensen notes, there are some slender signs of changes to the systems of authority, in which new forms that exist outside of the traditional publishing circuit, such as blogs, appear to be gaining some momentum, triggered threefold by technology, economics and academic culture.² It is to systems of prestige, quality and authority – sites of symbolic economic interchange for both cultural and material capital – that this first section is dedicated.

While, superficially, ‘prestige’ seems like an unproblematic concept, the fact that it can be made to sit so tightly with metaphors of economics – ‘outsourcing’, ‘currency’ and ‘value’ – betrays the fact that it is actually the front for a series of often unchallenged assumptions about academic publishing. This is because prestige and quality are not synonymous. Prestige is a proxy measure for quality that is

gained through an economic rationing of material. The accumulation of prestige then affects the material economics and pricing of scholarly research. In truth, it is difficult to think through the economics of open access, or even of scholarly communications, without first understanding quality control mechanisms and the means by which they are appraised. This is because the economics of scholarly publication are concerned with scarcity, supply and demand, which are all aspects mirrored in the processes of quality control that condition the flow of academic material.

For those versed in Pierre Bourdieu's theories of material, social, cultural and symbolic capital, whereby financial and reputational forms become interchangeable, this link between prestige and material economics will not come as a surprise. In fact, in his *Outline of a Theory of Practice*, Bourdieu writes of a 'conversion of material capital into symbolic capital itself reconvertible into material capital'.³ In this particular instance, a piece of research work is a demonstration of an author's cultural capital; it is the product of the skill, knowledge and ability of the author(s). The acceptance of such research by publishers who possess both material capital (needed to undertake the labour and effectively disseminate the work) and cultural capital (knowledge of publishing and academic systems) constitutes a payoff in the form of social capital (endorsement and support) for the author that can be re-converted back into the symbolic capital (prestige/reputation) that is needed for peer respect and a job/promotion (material capital). Acquiring authors with high levels of cultural, social or symbolic capital for their list improves a press's own social, symbolic and material capital (in the ability to sell research).

However, Bourdieu also notes that this very phenomenon of interchangeability is often denied by participating societies. In the case of scholarly communication this stems from the conjoined facts that prestige is useful to academics but also that the academy and especially the humanities often wish to distance themselves from market economics. Indeed, as Bourdieu puts it, 'The endless re-conversion of economic capital into symbolic capital, at the cost of a wastage of social energy which is the condition for the permanence of domination, cannot succeed without the complicity of the whole group: the work of denial which is the source of social alchemy is,

like magic, a collective undertaking.⁴ Concurrently, it has been argued in other fields that ‘over time, economic and political domination become inseparable from prestige, cultural expertise, and ideological dominance’.⁵ From this argument, it seems imperative that notions of prestige be critically interrogated within the field of scholarly communication. The primary question that I suggest should be asked is: what are the effects of prestige (which nonetheless has many practical benefits) within various economic spheres and in the context of a transition to open access? As I will show, these systems of prestige contribute to the behaviour of academics towards the implementation of open access, to the economics of scholarly communications and also to the external perception of the academy.

In order to begin this analysis of the intersection of symbolic reputational exchanges and real-world finance, it is worth posing a set of critical, rhetorical questions along with some hypothetical reasoning that, in each case, implicitly views the *function* of journal/publisher prestige as more than a direct correlative of quality. In opening up this space, it should then become possible to gain a broader understanding of the way in which the economics of scholarly communication are bound up in a series of symbolic exchanges that are engendered by institutional (academic) practices.

1. **What does prestige do to the economics of scholarly publishing?** There is perceived pressure from assessment mechanisms to publish articles in high-prestige journals and books with high-prestige presses. Such journals and presses, therefore, are highly sought after by authors, creating a high level of supply. If good authors appear in prestigious journals or with presses, libraries must subscribe to their journals or purchase their books so that their researchers can read the material. If libraries must subscribe or buy, demand and perceived value is higher for such venues, which justifies a price increase. Journals and presses that hold prestige, however, are subject to the same series of transfers and buyouts as other forms of publishing, as seen in Chapter 1. This potentially concentrates ever more expensive venues in ever fewer hands, which could make competition on price more difficult.
2. **What does prestige do for dissemination and how does it fit with OA?** If academics know where to find top-quality material, then the brand name of a journal or a press serves as a

discoverability mechanism; they can *find* good material by knowing where it will be. However, if academics and/or the public are unable to *access* this material because of pricing, then did prestige help with dissemination? While it is absolutely true that the highest-prestige journals and presses might offer brilliantly targeted discoverability and dissemination, is it the case that a prestigious pay-for-access version could *always* and *intrinsically* be better disseminated than an open-access equivalent? Furthermore, in theory, should not targeted amplification and dissemination also be possible with an open-access version? Access to academic materials is wider than ever before, particularly through partnership schemes with public libraries. For the specific question of whether prestige is causally connected to accessibility in the context of OA, however, this can be viewed as an issue of dissemination against discoverability.

3. **How do prestige and quality interact?** Using a branded proxy measure (a journal/publisher) to evaluate whether material is good (well selected by peer review) comes with advantages. It reduces the labour time in finding excellent research and makes the effort of hiring panels viable. However, if good research is determined by the academic community and through peer review, how does the publisher or journal brand correspond to that determination? Especially in smaller fields, the same reviewers often work for different journals and publishers, so the choice of where a piece was submitted could potentially have no bearing upon the reviewer pool. Under what circumstances do quality and prestige, therefore, diverge?

These critical questions are designed to make it possible to reconsider prestige as an economic force that is both constituted by and affects the academic community. The critical framing of these questions is certainly not designed to deny the pragmatic benefits that come with prestige. As I outlined above, the over-supply of qualified individuals for a small number of posts attests to the need for proxy measures that accurately denote quality. Publishers' and journals' 'brand-name' prestige is one such proxy measure. It seems important, however, to explore these questions if an understanding of scholarly economics with regard to open access is to emerge.

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To expand upon the above introduction to the symbolic capital of reputation in academia, prestige, in terms of publication venue, is accumulated through an economy of scarcity. It is definitively gained through exclusivity, in which one decides to publish only the best material. The definition of 'best' is formulated through a negotiated process of peer review to ascertain likely future winners in terms of content. The process is 'negotiated' because review is mediated, in all cases, by an editor. This can be an academic editor who may choose to apply different criteria, or a commissioning editor of a monograph who may also have to balance the marketability of an individual book against a set of glowing reader reports while also taking into account the overall list coherence (both in terms of the intellectual coherence of a publisher's offerings and in terms of the economic sense in taking on a title).

Prestige, however, is a proxy measure for quality. It economically mirrors academic labour scarcity because it stands as a surrogate in order to avoid the labour-intensive practices of constantly reappraising academic material in every situation. A journal's or publisher's prestige, then, can be considered as a labour-saving shorthand that, in theory, should denote a venue in which top experts deemed other material to be first rate. If the experts in a field can only be asked to review a certain quantity of material and if those producing top-quality research can only submit a certain amount of work to a limited number of venues, the argument goes, then a prestigious journal or publisher will only take scholarship from the academics reviewed and favoured by those experts. However, because prestige is a proxy measure tied to labour scarcity, acting as a substitute for quality, it is not, therefore, right to think of quality and prestige as the same. In fact, it is possible that they can drift apart, which is where problems can occur. As Peter Suber puts it, primarily in relation to journals:

Quality and prestige overlap significantly. Because quality feeds prestige and prestige feeds quality, this is no accident. But sometimes they diverge, for at least three reasons: because some journals are new and prestige takes time to cultivate, because prestige is a zero-sum game and quality is not, and because prestige can be based on inaccurate or outdated judgments of quality. It's always convenient, and usually irresistible, to use prestige as a surrogate for quality. When quality and prestige overlap, that's entirely

legitimate. But when they diverge, favoring prestige harms university hiring practices, research funding practices, and the growth [of] every kind of science and scholarship represented by new journals (which always lack prestige). Universities have a responsibility to notice when prestige and quality diverge, resist the almost irresistible temptation to favor prestige in those cases, do their best to recognize and reward quality, and give faculty an incentive to put quality first as well.⁶

Because prestige is used as a surrogate for quality that acts to compensate for labour scarcity, it also rests upon particular financial considerations pertaining to labour. The first and most important of these observations is that the model of traditional review, in which material is pre-screened for worthiness, relies upon academic labour. Validation is performed through a process whereby academics confer value upon the piece in question. The system that is erected here is one wherein humanities academics cyclically confer prestige upon a journal or publisher twofold by submitting their pieces to the venue that they believe to be the most prestigious and by reviewing with strict (even if unquantifiable) standards for those same destinations. Reviewer selection is often the task of an academic or commissioning editor who knows the field. In short: many of the major elements of authority and value that constitute the selection process and that therefore build prestige are undertaken by academics.

However, there are at least three reasons why academic labour is a necessary but insufficient condition for prestige accumulation in scholarly communications. Firstly, this is because there is a coordination role in which publisher labour and expertise is deployed; cultural and material capitals. Secondly, there is a negotiated and mediated process of selection in which the publisher also participates to preserve its own necessary interests in the market and quality; another intersection of cultural and material capitals. Thirdly and finally, the existing possession of social, cultural, material and symbolic capital allows publishers to confer prestige; the various forms of capital historically acquired by publishers are bestowed, in turn, upon authors in a mutually re-enforcing cycle. Thus, while academic quality may be determined entirely by academics conducting peer review, the economics of prestige work very differently.

In terms of open access, there is, theoretically, no reason why a new gold open access venue could not accumulate substantial academic

credibility and prestige over time, should it attract the prerequisite submissions and reviewers. Indeed, there are many reasons why a gold open access venue may fare better on prestige in the long run. For example, the fact that there is no need to fill an issue in order to give subscribers value for money should make it possible to be more exclusive, if one desired.⁷ This is undercut, however, by a strongly conservative disciplinary mechanism. The hiring, firing and promotion committees for which prestige serves as a useful proxy measure also fuel the need for academics to publish in existing venues that hold prestige. This same disciplinary mechanism, itself, partly restricts the ability for academics to publish wheresoever they might like with impunity; researchers sometimes select to publish in the venue that they feel will do the most for their research assessment return rankings or employability (its prestige) as a primary criterion. In many cases, fledgling (OA) journals are not believed to fulfil these criteria. Prestige takes a long time to accumulate because the proxy measure requires a significant sample to prove its worth and because new venues are competing within an economically regulated field of symbolic capital.

From this logic, a partial answer to the first of my questions can emerge: the accumulation of prestige, as a form of symbolic capital, is difficult as the system is heavily weighted towards the normative. The use of prestige as a proxy measure by research exercises and hiring procedures has, to some extent, a disciplinary function that encourages publication in known venues. Likewise, publishers have an incentive to seek out academics who are known quantities (possessing social and symbolic capital), particularly in the monograph sphere, to preserve their own prestige. These factors increase the number of high-quality micro-monopolies (published articles/books) held by such publishers and through this cycle the prices of top venues can go up. Although it could be possible for such publishing entities to use this privileged position (when they hold much quality material) to lower costs across the subscriber and/or purchaser base (simply by dint of a larger number of subscriptions and purchases), and although some publishers would probably say that they do so, this is against the market logics of profit, scarcity and perceived-value pricing. At the same time, as these disciplinary measures make it harder for new venues to gain prestige, the market logic that competition could force prices down is not particularly efficacious.

Conversely, however, in the absence of other proxy measures, it could be the case that prestige saves departmental time and money in hiring and assessment processes. This could mean that prestige would offset its own potential economic disadvantages through an obviation of the need to reappraise work constantly. It would be incredibly hard to determine empirically what the costs would look like if labour time were needed to compensate for an absence of prestige. However, the situation is serious enough that there are now a number of projects investigating alternative metric systems to appraise quality ('altmetrics').⁸ Such 'altmetrics' attempt to shift the focus of quality assessment away from the use of journal or publisher brand name as a signifier of quality. Sometimes these metrics are flawed, though, in that they can be easily gamed. For example, if one uses social media mentions of a work as a measure then there is an extreme risk of populism playing too strong a role and authors can also artificially inflate their reputations through technological cheating (such as creating many fake Twitter accounts etc.).⁹ As with all quantifying bibliometrics, technological altmetrics are also only adept at measuring downloads and not so good at determining actual use (i.e. reading, assimilation and value). This is to say that, as much as there are problems with prestige as a measure, there are difficulties with all proxy measures. This is because if a proxy measure directly indicated the thing itself, it would not be a proxy.

One such alternative metric that could work – although it is notably also bound to a measure of 'prestige' for an academic – is the name of an academic editor. This is already more frequently the case for edited collections where far greater emphasis is placed upon the status of the academic editor. A measure of value based upon the academic editor would not only partially militate against some of the economic problems outlined above but also assist with the discoverability and dissemination issues touched upon in my second question. This is because such a shift from journal brand to editor brand would disentangle the proxy measure from a specific (subscription/sales-based) economic model. Researchers would still have a proxy measure to find material (the name of the editor) but issues of access might be more easily resolved through lowered barriers to entry for new journals or publishers. This could, of course, also have its problems. Respected academic editors might find themselves being

offered substantial (financial) incentives to edit specific publications, as just one example, so the system is hardly flawless.

Furthermore, continuing this sketch, which forms a part-response to my third question of how quality and prestige interact, peer reviewers are the other important signal of quality that the current system in the humanities somewhat disregards in favour of an accumulation of prestige. Peer review is, in the most basic terms, an expression of endorsement: which academics said that a piece of work was good and worthy of publication. Given that academic reputation is all-important, the fact that this information is very rarely made public leaves much to be desired in terms of a proxy measure for value. There are, of course, practical problems with revealing reviewer identity to which I will return in the pragmatic path that I suggest in Chapter 5, but there is something to be said for a system in which people publicly endorse others' work, as is done in the marketing blurbs of monographs.¹⁰ Going even further, it is curious to think that the pages upon pages of feedback that academics write for one another as part of the review process are discarded after use every year. It is difficult fully to know the bounds that structure a field and that determine the forms of knowledge that are producible and valued when so much of the process that shapes that crafting is hidden. It is also extremely hard to map the correlation between quality and prestige when the determinants that built this form of symbolic capital are not available.

Finally, moving away from internal prestige now to think a little about external value conferral (the 'prestige' of the university), it also seems plausible to posit that the current sphere of circulation, based on the subscription or commodity-purchase mode, could bear upon the external perception of the university and research in the humanities. It is true that, at present, successful academic publishers are adept at amplifying research in specific ways.¹¹ The target audience that they can usually help academics reach, however, is other researchers, admittedly the primary group for whom academic research is important. In an overloaded online environment where discovery is a bigger challenge, this function should not be overlooked. That said, compared with the mooted lofty purposes of research in the humanities, this vision is fairly limited, constrained as it is by the subscription/sale model. Indeed, if these disciplines are

historically situated within the tradition of liberal humanism, in which the humanities help to create an informed and critical populace, then should not the amplification of scholarship go beyond those circles? Could such a broader base, through open access, help to cement the public reputation of the academic humanities?

This has been billed by advocates as one of the more pragmatic arguments for open access: by allowing the general public access, a far better case is made for the value of academic research activities. Two criticisms could be mounted against this stance. Firstly, this already plays into a specific notion and rhetoric of 'value' that could be problematic. Secondly, following on from this, it could be argued that the general public are not equipped to understand this work and that the misreading of its purpose could further damage the credibility of these disciplines. Indeed, arguments that the public will not always understand humanities research may, in some instances, be true.¹² However, a growing proportion of the global population now receive a degree-level education, in which they are taught the skills to read humanities material critically. If the process of a university education is one wherein access to such material is plentiful while one is inside but prohibitively expensive once flung into the wider world (academic books frequently cost £50+ and a single journal article can often fetch £40), it is clear that the academy may struggle to function efficaciously as a tool of social change. Social change, after all, must be executed immanently. It cannot be effected from an external, prestigious site that simply tells others what to do and think. Advocates argue that open access could enhance the ability of the university to change society for the better.

Of course, to some degree, the isolation of the academy is a historical function of professional specialisation and is inherent in notions of expertise and authority. As Samuel Weber notes, 'In order for the authority of the professional to be recognized as autonomous, the "field" of his "competence" had to be defined as essentially self-contained . . . In general, the professional sought to *isolate* in order to control.'¹³ As Weber goes on to note, 'The university, as it developed in the latter half of the nineteenth century, became the institutional expression and articulation of the culture of professionalism . . . The "insulation" or "isolation" of the American academic community from other segments of society is the negative prerequisite of that

demarcation that marks the professional perspective, above all that of the university professor.¹⁴ Such social demarcation, mirrored internally within academic institutions through disciplinarity, generates a dilemma for the humanities. On the one hand, the humanities form a study of difference, designed to explore and preserve plurality. As Weber notes, however, the moment that the specificity of this tolerance is defined in the service of expertise, it retreats to a stance of isolation in pursuit of authority. In other words, to be an expert *means* isolating a field of knowledge in which one becomes authoritative, an act of demarcation. It makes little sense to say, however, that the demarcating feature of the humanities is to pursue the erasure of demarcation.¹⁵ While such anti-disciplinary thinking may be theoretically valuable (and could chime with the aims of the humanities), it is, of course, extremely difficult to implement within existing structures of the academy.

As Bill Readings accurately diagnoses, however, the ‘internal legitimation struggle concerning the nature of the knowledge produced in the humanities . . . would not take on crisis proportions were it not accompanied by an external legitimation crisis’.¹⁶ Indeed, the state of constant emergency for the humanities through its external, public perception is only set to continue. Due to various legislative shifts, which are fundamentally bound up with governmental market-orientated transformations of the university, there is top-down demand for transparency in academic dealings and for a quantifiable legitimation of the academy’s activities.¹⁷ Although, as Thomas Docherty notes, this transparency agenda seems to have evolved simultaneously with ‘the growth and distribution of higher education, with a watering down of class prejudices and Establishment certainties, and with an ostensibly democratic demand for an opening of the doors of opportunity to all’, it also specifies the priority of accountability and transparency, with the seeming aim to produce the ultimate rational market actor: one who has access to all information and therefore behaves in a predictably self-interested fashion.¹⁸ While, then, it is possible to identify potentially irresolvable paradoxes at the heart of humanities study (demarcation/legitimation/utility), it will be much more difficult to overcome the smaller, more soluble challenges to the ‘value’ of work in the humanities if a resolution to the problem of external institutional

legitimation is totally resisted. It may simply be that the rhetoric of proven value is now too politically strong to be fully resisted without incurring the total destruction of the humanities by those with material capital.

In the face of such tactics, two roads are possible with respect to open access for those who wish to resist market-based, utilitarian evaluations of the humanities. The first is to retain current closed publication practices and to keep a monetary price for access to research outputs. This comes with the potential disadvantages of degrading the university's liberal humanist potential through isolationism, of dividing the research community into those who can pay and those who cannot, of limiting the audience for research work, of sometimes over-delegating hiring and promotion procedures to proxy measures, and of under-utilising the potential of the internet to gain instantaneous access to research and teaching materials. Conversely, if open access is adopted, these aspects could potentially be mitigated where desirable, but sometimes at the price of playing into a justification on the basis of transparency and appraisal, quantification and measurement, among the many other controversies. These arguments must be weighed individually by all members of our university communities.

In the first part of this chapter, I have begun to discuss the way in which considerations of the economics of scholarly publishing are bound to considerations of a parallel system of symbolic exchange. This is often manifest in the abstract notion of prestige, which is a proxy measure for quality, rationed through academic labour scarcity. The financial and research benefits of prestige for and of the academy are many. However, prestige as a proxy also hinders the development of new (economic) models for publishing because it is a system that tends towards re-enforcement of existing systems. Indeed, once prestige has been accumulated, it is harder to lose than it ever was to build, an aspect that erects higher barriers for new initiatives to hurdle if they are to gain social and economic traction. Finally, it seems clear that a greater public face for the humanities is necessary to overcome the problematic perception of a prestigious, lofty site of anti-utilitarian authority, with open access positioned awkwardly in response to this challenge.

ECONOMICS, 'ACADEMIC LABOUR' AND PUBLISHING

From the preceding observations on value-ascription and assessment in the humanities, it is clear that the finances of scholarly publishing are in part determined by a complex set of socio-academic factors. From such thinking, however, and now beginning to move towards the purely financial side of open access, a fresh set of questions emerge. Why is open access peculiar to the university? Why, uniquely, should the university be forced to give its work away for free? Beyond this, if there were satisfactory answers to the preceding two questions, if the academy were able to give away its work for free through open access, would this present a point of resistance to the commodification of higher education and research outputs, given that something that is monetarily free looks as though it has no exchange value?

To think through such questions, it is necessary to begin with an observation that the theoretical premise on which the labour of academic scholarship rests is one where the author is paid an academic salary, part of which covers the production of research work. While this is sometimes supplemented by external grant income, it is also important to note that a vast quantity of humanities research work is undertaken on institutional (and sometimes personal) time. As touched upon above, this theoretical model yields a very good rationale for why scholars should give away their work: they are happily divorced from the need to sell research for a financial return. While some scholars may wish to gain supplemental income from selling their work, in most cases such returns are too small to make a tangible difference. Instead, academics see a longer term payoff in the form of reputation, which leads to promotion and eventual material self-gain, on top of the anticipated benefit to society through academic research. This is a good model because it moves academic work beyond the realm of popular market appeal. This means that niche investigations into important, but unpopular, areas can be published. However, as with many theoretical models, it can be difficult to pair the rhetoric to the reality. Contingent faculty who exist on short-term contracts under precarious labour conditions with no guarantee of work on a term-by-term basis make a mockery of this ideal system. This is clearly demonstrated by the existence of

books such as Keith Hoeller's *Equality for Contingent Faculty: Overcoming the Two-Tier System* in which he points out that there are over *one million* contingent faculty members in the United States – a whopping 75% of all university teachers – or even the fact that Bill Readings' *The University in Ruins* is dedicated to Ann Wordsworth, of whom Readings wrote that 'She taught me about something that Oxford called "Critical Theory" and she did so on a *short-term contract*, teaching *in a hut* in the garden of one of the brick mansions of North Oxford.'¹⁹ In the UK, over half of universities and colleges use lecturers on zero-hour, precarious contracts that bring no guarantee of work.²⁰

In this light, it becomes harder to justify the argument that all academics are paid to write and so can afford to give material away. A substantial portion of the academic community do not benefit from the security of the ideal model. However, the counter-argument is that those who wish to succeed must be able to publish with reputable presses, as publication is the unit of accreditation, the validating branded proxy measure that can lead to a job. The bold claim that academic labour is different from other forms of work in some respects, with regard to the outcome of research material, is therefore only partly true. Scholarship *is* different from other forms of output, in theory, because academics are paid to give their work away. In the current implemented reality, however, it is a form of labour like any other. Nevertheless, given the discrepancy between the ideal and reality, it is important to ask at this point whether there are viable and preferable alternatives to a system in which publishers do not directly compensate writers.

To address this, it is worth hypothesising three different business models for academic publishing. The three models that I will venture are: (1) a system under which academics are paid for their publications; (2) a system under which publishers are paid individually for their services; (3) a cooperative system. This list does not constitute a systematic overview but is rather an examination of a range of options that exemplify each type and that allow us to think about the historical emergence of the subscription/commodity-purchase model.

The first of these models, an 'academic pay for publication system', is a hypothetical one wherein academics would be paid by

publishers for the work that they produce. Publishers would then recoup their costs and make a profit by selling the work back to academic libraries and a limited number of other interested parties. This already happens in reality with research monographs. In most cases of books, however, the royalties paid to authors are extremely small because of the low print runs of such volumes, a changing and increasingly competitive market space and the assumption that academics are already paid by institutions to write the works.²¹ With this in mind, let us consider instead the case of journals.

If journals paid academics for their articles, the system would be altered in several ways. For one, journals would more directly weigh every contribution made by authors for return value. Secondly, new journals would have to find significant sources of funding to compete on any level. Thirdly, a hierarchy of payout would emerge that would further top-load the system as those who have capital would be able to offer the greatest monetary rewards. Fourthly, academic salaries would come under more intense scrutiny if a lucrative additional income source were available. Fifthly, institutions might desire to take a share of this and, in the process, require academics to obtain the highest return, thereby curtailing the ability to publish in some venues. Sixthly, presses might begin to favour authors whose names will bring them a better reputational return, thereby making entry to an academic post even harder for early career researchers. The list goes on. In fact, a model for journals that financially rewarded academics directly for their writing might well be disastrous. As Peter Suber writes, 'The academic custom to write research articles for impact rather than money may be a lucky accident that could have been otherwise. Or it may be a wise adaptation that would eventually evolve in any culture with a serious research subculture.'²²

Assuming, then, that this 'academic pay for publication system' would be too damaging, what about a model in which publisher labour is considered as a service for authors? This is how many publishers already perceive their activities and it is the justification for not paying authors; academics are *clients* for whom publishers work (but, paradoxically, also *suppliers* and *customers* in various configurations). This model, which lies behind article and book processing charge setups, seems appealing. If authors, or their

institutions, were to pay publishers for their work, which could then be made freely available, the economic burden would be transferred to the supply side and the demand-side library budgeting/access dilemma could be solved (although not the supply-side 'over-production' problem). This is a model that works on the basis of transferring financial risk towards academic institutions and away from publishers, who have traditionally needed capital surpluses to tide them over through long publication cycles in the hope of a payoff across their list.

In this inverted model, publishers are paid for the services they render and not in return for making sound judgements in a sales environment. As examples, in the natural and social sciences, two publishers, PLOS (a pure open-access publisher) and SAGE (a traditional publisher with open-access options), operate their gold journals on an article-processing-charge basis. Under this model, authors, their institutions or their research funders must pay a fee once an article is accepted. At the time of writing (mid 2014), for PLOS's journals this ranges from \$1,350 to \$2,900 per article but these charges may be waived in the case of the author not having the available funds. In the case of *SAGE Open*, the publisher currently charges \$99, a discount from a launch price of \$695, again with a waiver option that is judged on an individual basis (although in June 2014 SAGE sent a mass email cautioning of a potential price hike).²³ Traditional publishers are also now more frequently offering an open-access option, so-called 'hybrid' open access in which a combination of OA and subscription articles co-exist within an issue. For Taylor & Francis, the price of publishing an article in one of these venues is \$2,950. Although there is a wide variance in APC levels, from £100 up to £5,000, according to Stuart Lawson the UK's Finch Report, acting on incorrect and outdated information, has now created a self-fulfilling prophecy whereby a more narrow range of £1,600–£2,000 has become the norm.²⁴

This cost is multiplied when dealing with books. Commercial publishers such as Palgrave Macmillan have proposed a book processing charge of \$17,500 (£11,000 GBP) per monograph-length title, which is simply unaffordable for scholars and departments in most humanities disciplines, even if this works out cheaper than the pro-rata equivalent for journals.²⁵ New born-OA academic publishers

such as Ubiquity Press put the figure for books closer to \$3,200 (£2,000 GBP). In light of the precarious labour models of the academy, however, it is clear that this is a seriously flawed model for the humanities and the outcry at APCs even *within* the university from tenured professors shows the kind of problems this could create for potential job applicants who cannot access fees. Indeed, this mode substantially worsens the situation for those at the bottom of the career ladder.²⁶

It has also been argued, within the context of article and book processing charges, that this model for gold open access would impinge upon academic freedom, an aspect I have already briefly touched upon.²⁷ It is argued that funding mandates restrict academic freedom because they curtail the ability of academics without funding to publish in gold OA venues that have an article or book processing charge, or with other publishers without a policy on green archiving. While being sympathetic to such reasoning and also believing that APCs and BPCs at such rates are unaffordable for the humanities, I feel it is important to note that this argument requires a very specific reading of the formal term 'academic freedom'. There are different definitions of academic freedom in countries worldwide, with varying degrees of legal standing. Take, for instance, the 1940 *Statement of Principles on Academic Freedom and Tenure* by the American Association of University Professors which proclaims that 'Teachers are entitled to full freedom in research and in the publication of the results.'²⁸ As Benjamin Ginsberg points out, this US context is hardly legally binding at all because '[i]n recent years, the federal courts have decided that deanlets, not professors, are entitled to academic freedom' and that 'professors' ideas and utterances do not have any special constitutional status'.²⁹ In the UK, via the Education Reform Act of 1988, the wording is even more restricted, although it is enshrined in law: 'to ensure that academic staff have freedom within the law to question and test received wisdom, and to put forward new ideas and controversial or unpopular opinions, without placing themselves in jeopardy of losing their jobs or privileges they may have at their institutions'.³⁰ In one reading, these statements *could* be seen as endorsing free choice regarding where to publish one's research, in which case the arguments over academic freedom hold. In another take, though, one

that situates academic freedom within a history of censorship, these doctrines refer to the full freedom *to publish* the work without fear of institutional or government reprisal, not to the choice of *where* to publish it, an aspect more strongly reflected in the wording of the UK's legislation. This can already be seen in the fact that journals and presses are allowed to reject academic work on grounds of quality (for both journals and books) and marketability (usually only for books), aspects that are not explicitly mentioned in these statements on academic freedom but which already limit the ability to publish wherever one would like.

In any case, the backlash against article and book processing charges has triggered investigations into a range of new models that seek to provide gold open access in a sustainable fashion without any author-facing charges, the third setup proposed above. Under such models – covered extensively below in 'How can open access be affordable for the humanities?' – many libraries each pay a small amount in order to sustain a large-scale infrastructure. It is thought by proponents that an extension of the service model in this way could prove less damaging and more amenable to the community, especially in the transition phase. Several projects, which often take the form of library consortial arrangements, including arXiv, SCOAP³, Knowledge Unlatched and the Open Library of Humanities, are currently investigating whether these models are favourable for libraries and/or feasible at scale.³¹

These consortial models are interesting because they operate, economically, less on the basis of competition and more on cooperation. When libraries cooperate to fund gold OA initiatives, the transition period and subsequent implementation could potentially look less damaging with the cost spread over a larger number of institutions. Such models, though, do not sit harmoniously within the present, dominant business context of free-market competition. As I have argued, however, the fact that there are inherent micro-monopolies in scholarly publishing (i.e. the unique nature of each published artefact) means that it is difficult to construct marketplaces to which such notions of competition directly apply. Instead, I would argue, we need to understand the commodity character of research within market economies more fully, an aspect to which I will now turn.

Scholarship and the commodity form

In order to understand why market-orientated governments are keen on open access, which seems based on a more egalitarian premise than would usually be palatable to them, it is necessary to consider the economic use-values and sites of exchange of published research. As covered above in the section on objections to open access in the humanities, one core point of contention is the way in which open licensing could lead to reappropriation of university research by external commercial entities. It is true that this seems to be the goal of many government OA mandates: to ensure a link between university and industry. However, what happens when that link feeds companies and activities that pose a risk to the research university itself? In this part of this chapter I will look at the next point of value and economics in relation to humanities scholarship: the bundling of research work as a commodity object. This will not only enable an examination of some of the points where the use and exchange values of research are realised but also make it possible to think through the potential changes that open access might engender in this sphere. In other words: is open access a way in which the commodity form of research can be resisted since it is given away for free (the 'gift'), or is it complicit with deeper utilitarian, industrial exploitation ('use value')?

Given the nature of research production and remuneration in the university, it can *superficially appear* that the research work of the academy is different in its terms of production from other manufactured commodities. After all, as we have seen, in the ideal situation, academics are paid a salary in order to give their work away; a rare situation of patronage in contemporary economics. This can lead the more optimistic opponents of marketised higher education to deduce that open access might present a point of resistance to the commodification of knowledge. In fact, such an argument would run, what could better resist this process than work that is, in two senses, priceless? Sadly, as I will show, such a conclusion is flawed. Open-access research is not radically anti-corporate, as Jeffrey Beall's accusation against the movement suggests and, indeed, a Marxist analysis of the commodity form of open-access material will confirm this.³² On top of this, while academic papers, whether open access or not,

remain ensconced within the commodity form as objects that have both exchange- and use-value, it is also clear that the production of research/scholarship in the humanities is not simply an esoteric activity undertaken purely for its own sake. It is, instead, one of the many instruments through which academic labour is transformed into productive labour, especially when aligned with the historical provision of land grants (nineteenth century), research patenting (early twentieth century), mid-century war funding and late-twentieth-century venture capital, as Joss Winn notes.³³ As with open-source software, what can be seen as emerging around open access to scholarly research is the university as a service industry that can provide training in methods of reading, understanding and (re-)producing such material. When considering the role, function and exceptionality of scholarship, then, it is important not simply to fetishise a return to a form without value under capital. Instead, as Winn puts it, one must remember that 'the trajectory of higher education and its conceived role and purpose in public life over the last century can only be fully understood through a critique of capitalism as the historical mode of production which (re-)produces the university'.³⁴ It is this mode of thinking that will condition my remarks and situation of the economic landscape within which scholarship is produced and under which open access emerges.³⁵

Thinking further about how open access intersects with contemporary academic labour, it is worth always remembering, as Amy Wendling notes, that 'Capitalism does not care if it produces quantities for use; it cares about producing profit.'³⁶ Even with this being the case, the fundamental aim of the labour of academic research in the humanities must be considered in terms of the use-values for various stakeholders, including those for the academics who write, who learn, who communicate and who are remunerated; for their readers, who are enriched and who learn to teach others; and for students, whose graduate prospects are improved (humanities graduates can get jobs because they can 'think critically', 'write well' etc.) and whose participation in democratic society, it is often claimed, is enhanced. Even these aspects, however, can prove somewhat too intangible for a materialist debate. Indeed, the question adeptly posed by Richard Hall – 'What is its [academic labour's] use-value for society, as opposed to its exchange-value or its price as a

commodity?³⁷ – is too broad to be covered here. That said, casting aside liberal humanism's ascribed democratic function, no matter how often the rhetoric of impact and use is foisted upon these disciplines, there are frequent discussions on whether the humanities hold materialist utility.³⁸

Such efforts to disclaim economic or material utility appear somewhat fantastical because, in addition to the intangible benefits, it is clear that humanities research has exchange-value that is enmeshed in capital (a form of use-value where the only use is to generate surplus value). In other words, academic research, even that produced in the humanities, has an economic function.³⁹ This can be seen most prominently in the way in which the contemporary university uses research material for teaching, for which there is now often a charge to students.⁴⁰ This is the 'dominant narrative that conceives universities as educational "marketplaces" where faculty produce learning and student-consumers purchase a defined quantum of knowledge in the form of a degree'.⁴¹ It can be seen wherever employers profit from the skills that their employees learned in a humanities degree. It can also be seen in publisher profits. It can be seen in the ticket prices for exhibitions at galleries, libraries, archives and museums (GLAMs). All of these sites extract surplus value over the academic labour that was necessary for the production of the research-commodity, even when the form looks as though it has no material value. Interestingly, though, under an open-access system, this research becomes even more adept at hiding its inherent labour – after all, for this object, nothing was paid by those directly acquiring the commodity.

It is important to emphasise this because many theorisations of university economics and commercial publication practices are masked behind the rhetoric of agency theory. Agency theories work on assumptions of calculated risk and bounded, rationally self-interested agents. For scholarship, as Raymond Hogler and Michael A. Gross set out in an important article, this means that:

First, the agency model demands that scholarship be commodified so as to play its part in the marketplace . . . Second, agency theory posits that the exchange of commodities – publications for money – takes place under competitive market conditions akin to those in a commercial enterprise . . . Third, the agency model features an idealized and discrete contractual bargain between a single faculty member and the university and necessarily

ignores the institutional consequences of the marketplace conception of educational processes . . . Fourth, agency theory presents itself as a 'positive' methodology that claims to be superior in technique and result in the 'normative' kind of research that makes moral, philosophical, or emotional appeals to the academic community.⁴²

The ubiquity of this model is problematic in many ways, but Hogler and Gross's argument reveals the core of this system: the dominant political and societal narrative (whether one wishes it so or otherwise) is that university research is a commodity from which surplus value is to be extracted. In this context, there is a potentially dangerous political risk that the monetarily free nature of open access might hide this economic presence and thereby sustain the illusion that research work is a liberated, esoteric activity (especially in the humanities) whose areas of inquiry are determined autonomously and free of market pressures. It seems unlikely that this is true at the present moment or that open access would change this in the future. The narrative of the commodity character of research work seems here to stay.

The other aspect of labour that is potentially hidden through the zero-price point of open-access research is publishing. While open access to research presents an object as free, this is not to say that academic publishing can ever be conceived of as a labour-free enterprise. Regardless of how the process is framed, even without any allowance for profit, publishers must be remunerated for their work. Indeed, publishing as it currently stands involves a value-chain of peer-review facilitation, typesetting (including XML or other formatting), copyediting, proofreading, design, printing, digital preservation, organisational membership (Committee on Publication Ethics, COUNTER [a body for the standardisation of usage metrics] and others), digital rights management and marketing, distribution, warehousing, as well as the more general costs of running a business (administration, accountancy, legal advice, trademark registration etc.).⁴³ Open access certainly eliminates some of these costs: there is no point in implementing digital rights management – which protects content from unauthorised copying – on material that is free to access and licensed for unlimited third-party dissemination. It could also be argued that, in a service-provision model, many of these costs could be optional and paid at the discretion of the author; for instance, if an author is confident that he or she does not require

professional copyediting and/or proofreading, then this could be unbundled from the cost (although this particular aspect would certainly be a risky strategy for both the author and the brand of the publisher).

From this thinking about market agency approaches, gold open access throws into relief the anomalies of ascribing a monetary value for the purchase of a research article or book, given that the primary audience for its purchase is the same as its genesis. That said, eliminating this demand-side price and instead thinking of an OA article or book as 'free' (and labour-free) can lead to the fallacy that a gold open access work could resist the commodity form. If something is given away for free, such logic would run, is it a commodity? This originates from a simple oversight of the fact that cost does not equal value. As Winn puts it:

There may not be a direct relationship between the OA paper and money like there is for non-OA articles, but if the OA paper is used by someone to improve their labour, which is being paid for by a wage, then there is an equivalence between the wage which pays the worker to improve their labour power which makes them a better teacher, researcher, etc. which results in them writing more/better papers, reproducing better students, improving the reputation of the institution, attracting more external revenue of one kind or another. The point is that capital is a social relation and the creation of value is a dynamic social process that can be distilled down to the time it takes for labour to produce a commodity: 'socially necessary labour time'.⁴⁴

Open-access articles and books retain an exchange-value because they are of use-value to people other than the creator, regardless of whether the object is purchased at a monetary sum. This, then, presents the opportunity for others to extract surplus value from the labour of academics, which explains, at least in part, why centre-right governments are so keen on OA. That said, even those who do not share such an agenda can nonetheless find themselves in sympathy with some forms of open access purely because they may create a level playing-field for access to research. Sceptics would say, however, that this egalitarian field is only one wherein academics are more equally free to be exploited and that supply-side payment models for gold will lead only to a less equal community wherein researchers without funds will be unable to publish.

Perhaps, then, this represents the compromise point for open access in terms of its political split: on the one hand, open access has the potential to eradicate the inability of academics to read the work of their peers. Conversely, all forms of OA under the BBB definitions allow a broader societal use-value (and that includes extending this to corporate entities).⁴⁵ While there are ways in which it would be possible to mitigate aspects of re-enclosure, if so desired – most notably through the addition of a clause to the license that means that any reuser must also make their derivatives available to the community under the same terms, covered below – these are harder to implement in political terms because of their anti-market connotations. What is clear, though, is that, under open access, the points of use- and exchange-value are decentred and deferred from the producer and even from the producer's employer (the university), rather than removed. Open access does not change this relationship to the commodity form of research. In other words: it is simply that the form of exchange-value *appears* differently under open access because there is no price. It is likewise clear that these topics require a more rigorous interrogation than might appear from a surface reading and also that the politics of OA must continue to be monitored for its potential dangers against its possible social good.

HOW CAN OPEN ACCESS BE AFFORDABLE
FOR THE HUMANITIES?

In light of the need to compensate publisher labour, one of the most important components in Peter Suber's list of 'what open access is not' is that 'OA is not an attempt to deny the reality of costs'.⁴⁶ While some volunteer efforts have managed to operate on almost non-existent budgets, this does not seem a prudent idea when scaled to cover all research in the humanities. This then leads to the question of how it can be possible for the humanities to afford open access. Who, at the end of the day, pays?

The answers to these questions are multifaceted but the absolutely crucial point that should be made upfront is that no major reconfiguration of the current economic model is necessary with green open access. Under this system, where a subscription mechanism for journals co-exists with deposit in an institutional or subject

repository, it is possible simply to continue with the existing economic model. This is because, at present, there is no evidence that green open access encourages institutions to cancel subscriptions, even in high-energy physics where the practice has been common since 1991.⁴⁷ Of course, this could change in the future (as posited by one much-criticised study⁴⁸) and it may be that there is disciplinary variance, so caution is advisable. It is also unknown how this model could work in the monograph sphere, although this is covered more thoroughly below. A further study commissioned by the Association of Learned and Professional Society Publishers, however, also showed that there are many more important factors that determine subscription cancellation than green OA.⁴⁹ This study covered a broad range of subjects, including science and technology, medical and healthcare, humanities and social sciences, and business and management. However, the study found no discernible disciplinary differences for the reasons why librarians would cancel subscriptions; in all cases, green OA came well below pedagogical and research relevance, the level of usage and the price. As Peter Suber's analysis of this study puts it: 'toll-access journals have more to fear from their own price increases than from rising levels of green OA'.⁵⁰

The reasons why green open access doesn't cause subscription cancellations are not wholly understood but must at least partially be attributed to the fact that green OA versions are often not on par with their version-of-record counterparts. Indeed, at the current permitted levels of deposit there would still be a hierarchy of access in which paginated, final versions of record, without embargo, could only be guaranteed to those at wealthier institutions. It is also true that the current rate of deposit, even when allowed by publishers, does not give substantial coverage due to the lack of institutional incentives (academics simply don't see the advantages of depositing to themselves).⁵¹ Furthermore, green open-access versions often do not appear in traditional library discoverability search routes (although they may fare well in proprietary rankings, such as Google), which could contribute towards a continued perceived need among faculty for a subscription. Finally, the length of necessary embargo periods to maintain subscription rates is disputed. The UK's House of Commons Business, Innovation and Skills (BIS) Select Committee Inquiry concluded that there

is no available evidence base to indicate that short or even zero embargoes cause cancellation of subscriptions. Evidence from the field of high-energy physics shows that despite nearly 100% immediate, unembargoed deposit (Green), subscriptions have not been damaged. The €4 million EU funded PEER (Publishing and the Ecology of European Research) project (2012) showed that traffic to journal websites increased when articles were made available through a publicly accessible repository, possibly because interest grew as articles were disseminated more widely.⁵²

The field of high-energy physics is one that recurs in studies of open access because it is the discipline with the longest history of green self-archiving (open access). Although this presents problems of disciplinary specificity and especially the ease with which it can wrongly be assumed that all disciplines will follow the same route, the only real evidence that we have for existing models comes from the sciences. In this discipline, almost every journal allows green open access immediately with no embargo period. As the BIS inquiry noted, this has not resulted in cancellations. In fact, the PEER project showed, somewhat counter-intuitively, that making articles green open access (across a variety of disciplines) correlated to more visitors to the official publisher journal websites.

In terms of humanities disciplines, however, the committee also noted that 'Several submissions argued that short embargo periods were more harmful to HASS (humanities, arts and social sciences) than STEM (science, technology, engineering and medicine) disciplines. The most frequently deployed argument in HASS subjects is that since works in these disciplines have longer citation half-lives (i.e. are referred to over a longer period) a longer embargo is necessary.'⁵³ This is, in fact, the exact line of argument taken by Rebecca Darley, Daniel Reynolds and Chris Wickham in a recent report for the British Academy.⁵⁴ The BIS committee rejected this argument, however, noting that they did not receive any evidence to support this recommendation.⁵⁵

Assuming, however, that a move beyond green to a gold route was desired, one in which publishing labour was remunerated from the supply side, one essential truth must always stand as a starting point: there is enough money within the total global system to cover the current rate of publication. Certainly, under the present arrangement, there is an insufficiently equitable distribution of capital

among institutions to allow everyone to have access, an aspect that could just be reversed to the supply side through article or book processing charges for gold open access if care is not taken. However, the work is published and publishers are afloat, sometimes making healthy profits. This makes it possible to deduce some crucial information. Assuming that it is desirable to keep the volume of material published at the same level (i.e. the degree of pre-filtering/rejection would remain unchanged), any problems of unaffordability of gold open access must be attributed to one or more of three points. Firstly, this unaffordability could be the fault of a transition period to supply-side payments for gold open access in which there are the double costs of subscriptions and of open access (so-called ‘double dipping’). Secondly, the difficulties of cost could be attributed to models for gold open access that rely on localised funding for authors (article/book processing charges), thereby replicating the existing problems of unequal access on the supply side and giving the impression of systemic budgetary crisis to authors who cannot publish. Thirdly and finally, publishers could fundamentally be charging more for gold open access.

The first of these issues – regarding transition costs and double dipping – is already being addressed. Publishers do not wish to seem to be charging twice for their work (i.e. charging both subscribers/purchasers for a subscription/book and authors/institutions for an article/book processing charge). To this end, many publishers have implemented arrangements whereby the amounts paid in processing charges are deducted from the costs paid by subscribers or purchasers. Taking an example of a journal, the problem here, of course, is that by reducing the amount paid across the whole range of subscribers, the cost to the individual institution that spent the APC is only marginally offset. This means that early adopters of APC-based gold open access pay more to support the transition. Taylor & Francis, for example, explain this thus for their journal model: ‘We acknowledge that the worldwide benefit of an increase in open access content in subscription journals may initially be paid for by a small number of institutions at the forefront of funding open access. We are unable to offer these institutions direct substitution of OA charges for subscription fees, since our commitment to no “double dipping” means the reductions in cost need to be shared

across all subscribers.⁵⁶ Conversely, another way in which some open-access humanities publishers, such as OpenEdition, have avoided double dipping, while also taking a payment, is through selling add-on benefits to libraries who pay, even when an article is gold open access. This model is called 'freemium' and benefits can include better metadata and usage statistics. These two different systems for offsetting double dipping and costs do not necessarily result in equality. The results, however, are not necessarily unequitable if these institutions can afford to pay. It is instead a progressive transition mechanism in which those with the capital to do so carry forward those who do not, at least in theory.

Whether or not this leads to a fair outcome, however, is debatable. At the currently proposed levels of article/book processing charges for gold open access, even if some institutions were to switch to a wholly supply-side payment system, it is possible that they could still not afford to publish all the material produced and deemed worthy by their faculty. Current subscription budgets in some humanities departments in the UK, for example, would stretch to a mere three articles (and not even half a book) under currently proposed prices for gold open access.⁵⁷ This has led the green open access advocate Stevan Harnad to brand a switch to gold open access under such conditions as 'fools' gold'.⁵⁸ The reasons for this are clear. Firstly, publishers have to cover the cost of work that they perform upon rejected manuscripts (review coordination etc.) even though they receive no income from such works. Secondly, APCs and BPCs are sometimes being determined by publishers dividing their current list revenue by the number of desirable publications in the future.⁵⁹ While this tallies with remarks by David Sweeney of the Higher Education Funding Council for England that he does not think of open access as a cost-cutting exercise, there is a lack of disciplinary specificity in such remarks that causes some problems.⁶⁰ Foremost among these is that the library budgets for scientific disciplines are often magnitudes of order higher than their humanities counterparts, particularly in the case of journals at the top of the prestige scale.⁶¹ Under article/book processing charge setups where pricing is either undifferentiated between disciplines or determined purely by emerging market levels set by such premises, the differences in financial circumstances between the humanities and the sciences are not adequately reflected.

However, the costs included are equal neither between disciplines nor even between individual articles/books.⁶² For instance, while some costs remain the same regardless of the type of material under consideration (digital preservation, for example, unless considering big data [where custom applications must be written to ensure continued access to extremely large datasets]), other expenditures such as fact checking, peer review and typesetting vary enormously according to the type of publication. As an example, the fact checking and peer-review portions of an article proclaiming the safety or otherwise of a vaccine need to be conducted with greater rigour (and at greater labour time) than that of an article about the nineteenth-century novel. Likewise, if a piece of work features mathematical notation, complex chemical formulae, tables, associated data or any of a raft of other necessary formatting idiosyncrasies, the cost of labour and/or technology is necessarily higher. In other words, undifferentiated pricing of gold open access article processing charges leads to a system of cross-subsidy in which works that are easier to publish and that require less labour time effectively subsidise their counterparts. Why should a 1,500 word, plain-text book review cost the same in an APC model as an 8,000 word article with complex symbols and typesetting requirements?

Such a system of cross-subsidy may be desirable to ensure the continuation of those disciplines with more complex publishing requirements. However, gold open access charges set at a universal, undifferentiated rate have the potential to damage the credibility of a service-based, supply-side payment model of academic publishing. This is because undifferentiated pricing gives the impression of a black box into which money is thrown and out of which comes a product and sometimes profits, with insufficient justification to 'clients' for the resources. That said, there are also several clear factors that hinder the development of transparent, 'unbundled' pricing. The first factor is the difficulty of articulating and pricing the value-adding aspects of academic publishing. This should be easier than it appears given that this labour consists of, at least in the current age of the book: selective acquisition, financial investment/risk, content development, quality control, management/coordination and sales/marketing.⁶³ The second factor, however, is that it is often unclear which services can safely be 'unbundled' without

losing other valued functions (i.e. many aspects of the publication workflow are not discrete but interlinked, such as 'quality control' and 'financial investment/risk'). Furthermore, this model could lead to painful job losses at publishers if the unbundled arrangement does not sustain their current staffing base. Of course, academic publishing as an industry exists to serve the needs of academic researchers, not to provide jobs and revenue for publishers. When dealing with real people's livelihoods, however, a greater degree of empathy and care may be necessary. Thirdly and finally, setting differentiated levels of pricing is a labour activity in itself that requires business sense and market research.

If the current problems of article and book processing charge pricing are a combined result, though, of inaction, a flawed hybrid environment and an unclear measure of costs, publishers also know that they cannot afford to sit idly by. As funders begin to insist on either green or gold for work they have funded, those publishers without open access options will find themselves unable to publish work that falls under the remit of these bodies.⁶⁴ Once this reaches a certain tipping point for gold supply-side payments, funders will have the ability to regulate this market. At the risk of future gazing, this could be done through the agglomeration of grant and dissemination costs. In other words, funders could state that the total amount awarded in a grant must cover both the research activities undertaken and the work's open access dissemination, with no distinction specified. This devolution of spending agency to grant recipients is a form of soft power, to appropriate Joseph Nye's concept, through which authors will be made sensitive to pricing of publishing as a service.⁶⁵ If faced with the choice of spending grant funds on publishing as opposed to staffing/equipment, cash-strapped researchers will place APCs under intense scrutiny. Through such a system of mandates in which researchers would be directly confronted with both the services offered and the expenditure of their own potential research funds on such services, this market might be spurred to competition.

Even with this being the case, there are also emerging models that seek to fund gold publishing infrastructures collaboratively, rather than competitively. The precedent for this, once more, comes from high-energy physics and the arXiv project (pronounced 'archive'). arXiv is a pre-print server that was founded by Paul Ginsparg in

1996 and that hosts non-peer-reviewed material.⁶⁶ The idea is that, in the disciplines covered, it is important that new discoveries are circulated as quickly as possible to allow others to verify findings as well as to establish the author's precedence and claim to originality, even while peer review is ongoing. To this end, arXiv allows researchers to put their manuscripts online for public access while the processes of review and publication in scientific journals are in progress. More relevant for the discussion at hand, however, is the fact that arXiv's revenue model is one under which Cornell University Library (CUL), the Simons Foundation, and a global collection of institutions support arXiv financially: 'Each member institution pledges a five-year funding commitment to support arXiv. Based on institutional usage ranking, the annual fees are set in four tiers from \$1,500–\$3,000. Cornell's [the host of arXiv] goal is to raise \$300,000 per year through membership fees generated by approximately 126 institutions.'⁶⁷ A similar model has been implemented by another project, SCOAP³, for high-energy physics, except this time for fully peer-reviewed, final publications.⁶⁸ Likewise, Rebecca Kennison and Lisa Norberg have proposed a model for the humanities under which there would be a central fund, created through an annual or multi-year payment from every institution of higher education, to which institutions and scholarly societies can apply through a competitive grant process.⁶⁹ With funding from the Andrew W. Mellon Foundation, my Open Library of Humanities project is also attempting to implement a similar model for journal publishing in the humanities.

These are models in which a moderate number of institutions come together to support a publishing platform. Because the ensuing research is freely and openly available to all, supporting institutions are not, themselves, 'buying' a commodity item. Instead they are banding together to bring to fruition projects that would not otherwise exist. Such an approach circumvents the economic problems engendered by the inherent micro-monopolies that are seen in scholarly communications. It could also make possible gold open access publishing without processing charges, which could work extremely well for the humanities discipline. However, it also comes with two distinct problems of its own: (i) the 'free-rider' problem in

which even those who do not pay receive the benefits and (2) the difficulty for such initiatives of finding the optimum balance point between the level of contribution and number of institutions.

The first of these difficulties, the so-called 'free-rider' problem, relates to the economic understanding that rationally self-interested actors do not wish to pay for commodities from which others benefit for free. In other words, except in philanthropic modes or systems of taxation for public good, most people usually resist paying for goods for which only they pay, but from which non-purchasers also derive benefit.⁷⁰ This results, for gold open access publishing, in a kind of prisoner's dilemma. If all library entities behave in a purely self-interested way and disallow free riders, these collectively underwritten, non-APC models cannot emerge. Admittedly, the increasing enclosure of universities within market logics doubtless makes it harder for acquisition librarians to justify expenditure on projects where there are free riders to senior managers. That said, as Rebecca Bliege Bird and Eric Alden Smith point out, the 'generosity' of participation in such initiatives is not devoid of return to member institutions. Indeed, as they note, 'individually costly but collectively beneficial (or at least prestigious) behaviors such as public generosity or extravagant piety are a form of social competition: the most generous or self-sacrificial individuals gain higher prestige, and the recipients or observers gain material benefit at the expense of their own prestige'.⁷¹ In this light, there is a potential direct return to institutions who behave generously, even in the face of free riders. This aside, through institutional cooperation it becomes possible to build scholarly communication systems that are not feasible within systems of pure market economics. arXiv recognises this problem and notes that 'arXiv's sustainability should be considered a shared investment in a culturally embedded resource that provides unambiguous value to a global network of science researchers. Any system of voluntary contribution is susceptible to free-riders, but arXiv is extremely cost-effective, so even modest contributions from heavy-user institutions will support continued open access for all while providing good value-for-money when compared with subscription services.'⁷² If a similar business model was shown to be viable for the humanities, one that also covered the costs of coordinating peer review but that was still collectively underwritten, many of the fears about the exclusionary aspects of article and book processing charges for gold OA could potentially be reduced.

On the other of these two problems, that of finding the optimum balance point between level of contribution and number of institutions, arXiv has chosen to focus on the top 200 institutions worldwide because 'they account for about 75% of institutionally identifiable downloads'.⁷³ This has the substantial advantage of yielding a smaller number of (wealthier) institutions to target but, conversely, means that it is necessary to ask for a larger amount from each while also ensuring that the commodity perk that is exclusive (membership of the arXiv governance board) is primarily restricted to these already-prestigious (and wealthy) institutions.

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How, then, can a transition to OA be affordable for the humanities? The only honest answer is that nobody can be certain that it is. This fact should always be accompanied, however, by the additional knowledge that at the moment it is possible to pay, globally, for all the research that is published. This means that, in theory, OA must be affordable, even in a switched, supply-side gold economy. The most likely short-term answer to this question, however, is that the currently available research shows that the green route poses no immediate danger to subscriptions for journals but allows open access. Books work differently and are covered below. In the longer term, for journals, two possibilities present themselves. The first is a market for APCs where researchers have developed price sensitivity, perhaps through funder encouragement. The second is a system of collective funding wherein many libraries collaborate to make possible an infrastructure to support publication that does not require a direct author-for-article/author-for-book payment. Such models can never ignore the costs of scholarly publication and should not underestimate the labour required. However, the current models cannot afford the opportunity costs of being left behind as open access gains increasing traction.

INTERNATIONAL CHALLENGES

At present, the economic challenges of the shifts to both gold and green open access are amplified by the fact that there is no unified global response, despite the international and collaborative nature of

the original declarations. This creates a problem because academia and the publishing industries are clearly global in their natures. This is not to say, however, that there have been no efforts at coordination. The European Research Council's 'Working Group on Open Access' agreed, in April 2013, upon a clear set of principles for a transition to open access. These principles, adopted by the fifty-two member organisations from twenty-seven countries that constitute 'Science Europe' (which, despite its name, also includes humanities disciplines and funders such as the UK's AHRC), included recommendations that:

- both the green and gold routes should be supported
- institutional and subject repositories should be regarded as 'key strategic research infrastructure' and should comply with standards
- open access should occur no later than twelve months after publication for humanities subjects
- efforts should be internationally coordinated to ensure the efficient use of funds
- OA fees should be transparent and incorporate 'a clear picture of publishers' service costs'
- publishers should implement reductions in subscription payment as supply-side payments increase
- hybrid open access (in which OA content also appears in subscription journals) must be deemed a failure and any future transition models must prevent 'double dipping' and increase cost transparency
- there will be budgetary upheaval and redirection.⁷⁴

Likewise, in May 2013 a weaker set of principles was endorsed by the Global Research Council (GRC), which is 'a virtual organization, comprised of the heads of science and engineering funding agencies [with "science" again including the humanities] from around the world, dedicated to promoting the sharing of data and best practices for high-quality collaboration among funding agencies worldwide'.⁷⁵ Among the key endorsements from this meeting were that:

- the negative perception of open access should be tackled through a positive PR campaign
- best practices for rewarding OA provision should be documented

- awareness-raising workshops on open access should be organised, especially in developing countries
- publishers should be encouraged to further develop open-access models
- funding agencies should work with libraries to begin diverting funds to the supply side through hybrid OA (in contrast to the damning ERC Working Group statements on hybrid)
- the affordability of open access should be monitored and assessed
- scholarly society journals should be helped to transition to OA
- green self-archiving should be supported through funder mandates and copyright regulations
- negotiations should be entered into with publishers to enable green deposit on behalf of authors
- interoperability and metadata standards of repositories should be developed and improved (so that unified search and cataloguing mechanisms can be developed)
- new assessment measures for quality and impact of research articles should be explored.⁷⁶

At the time of writing, the GRC's 2014 meeting, hosted in Beijing, had been held and included a discussion of an 'Action Plan on Open Access for Publications'. Details of this meeting had not, however, been released beyond a statement that open access had been discussed.

The differing recommendations of just these two bodies is sadly symptomatic of a field in which the same motivations and problems are faced globally but meet with different responses. Speed, efficiency, return on investment, public gain and equal access are all widely sought benefits of open access. Likewise, the same controversies seem to have emerged in different global pockets as OA has come to the foreground, as demonstrated by the need for a positive press campaign: the quality or otherwise of open-access venues, copyright, sustainability, infrastructure and integration with national and career-reward metrics. Yet despite these shared objectives and challenges, the international field remains highly fragmented. As Michael Jubb of the Research Information Network noted at a recent (2014) international meeting on open access convened by Research Councils UK, there is a serious lack of consistent and authoritative

information on the progress of implementation. Furthermore, as he also pointed out, there are now more than a dizzying 600 OA policies/mandates in force worldwide with huge variance in their scope and approach, from national through institutional and up to funder level. Those who would like to view a more complete list of such funder mandates should consult the online 'ROARMAP' (Registry of Open Access Repositories Mandatory Archiving Policies) resource maintained by Stevan Harnad.⁷⁷

In terms of specific national developments, it is, of course, impossible for a volume such as this to give a comprehensive report on the current state of play. Remarks on this aspect will also, naturally, be among the parts of this volume to look the most dated in the shortest space of time. That said, to convey a sense of the diversity of progress worldwide I will venture into some summaries. While I have tried, here, to focus on developments in the humanities, I have also veered beyond this disciplinary purview where it looks likely that other fields have set national precedents for policy that will be followed by the humanities or where no explicit policies for the humanities currently exist. In terms of the national mandates discussed here, it is a sad fact that the humanities receive comparatively little research funding from governments. However, there is also a case to be made that publicly funded humanities research is likely to be of an extremely high quality because resources are scarce and competition is intense. This is significant if there are then mandates to make such work open access as it will counter perceptions of OA being intrinsically lower quality. As discussed below in Chapter 4, monographs are usually exempted from funder mandates at present, except in the case of the Wellcome Trust, so this section deals predominantly with journals. Where no source is given, this information came from the presentations given at the Research Councils UK (RCUK) International Meeting on Open Access in March 2014. Where no presenter is listed, the information was presented by Michael Jubb at that same event.

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On 15 May 2014, the National Natural Science Foundation of **China** (NSFC) and the Chinese Academy of Sciences (CAS) announced that 'researchers they support should deposit their papers into online

repositories and make them publicly accessible within 12 months of publication'.⁷⁸ Efforts to enable open access have been ongoing in this country since at least 2005 when Yongxiang Lu of the Chinese Academy of Sciences signed the Berlin Declaration, joined shortly thereafter by Yiyu Chen of the Committee of the National Natural Science Foundation of China.⁷⁹ Focus in the country largely rests upon the green route (and for the sciences) although there are also discussions on how to fund gold open access. All research funders allow the use of grant funds to support article processing charges. There are currently around 300–600 OA journals reportedly originating from the country although the number listed in the Directory of Open Access Journals is far lower (around fifty). These developments have led one recent article to proclaim boldly that 'OA is to become the future of academic library exchanges in China.'⁸⁰

India, likewise, has no national mandate in place but there has been a recommended OA policy, drafted by the National Knowledge Commission, since 2007. Between 2006 and 2012 there was, however, a large expansion of open-access provision in India as a remedy to the reality that '[t]raditional avenues of publishing are closed to many authors in developing countries' coupled with the facts that 'poor access to international journals and the low visibility of papers are major problems facing Indian researchers'.⁸¹ Although a later 2012 paper concluded that 'India has made important contributions towards the growth of open access publishing', it is also clear that 'Even though the overall picture of open access publishing in India looks promising, it makes an unhappy situation for subjects in social science, arts and humanities. The quantity and impact of journals in these subjects are not at par with subjects like medicine, sciences and technology.'⁸²

South America, and in particular **Brazil**, has made huge advances in open access, most notably through their origination of the SciELO (Scientific Electronic Library Online) platform, which was created in 1997. Once more, as with Science Europe, despite its name, SciELO also contains humanities journals. The importance of this platform has been recognised by Thomson Reuters, who now include a 'SciELO Citation Index' to aid discovery of research in Latin America, Spain, Portugal, the Caribbean and South Africa.⁸³ This platform hosts approximately 1,100 journals, with 900 listed in the Directory

of Open Access Journals coming to a total of half a million articles; a fairly staggering achievement. This has been reflected elsewhere on the American continent with the president of **Mexico** signing amendments to various national laws in May 2014 to create the National Repository of Open Access to Quality Scientific, Technological and Innovative Information Resources of Social and Cultural Interest. This is a national-level green OA repository with mandated deposit for any publicly funded work, although the mandate has been criticised by advocates for its weak wording and potential loopholes.⁸⁴

Open access in **Australia** also marches ahead. Both the Health and Medical Research Council and the Australian Research Council have OA mandates that require green deposit of articles with a maximum of a twelve-month embargo. All Australian universities now have institutional repositories. Researchers are also allowed to spend 2% of grants awarded by these organisations on article processing charges to facilitate gold. It is unclear how the current massive funding cuts to Australian higher education will affect these provisions. By contrast, there is no governmental policy on open access in **New Zealand** but there have been individual institutional mandates at Otago Polytechnic, Lincoln University and the University of Waikato.⁸⁵

According to Ted Hewitt, the Executive Vice-President of **Canada's** Social Sciences and Humanities Research Council (SSHRC), Canadian efforts in open access have focused heavily upon the green approach and a unified policy from the three federal research funding agencies, including the SSHRC, was expected in September 2014. Since 2006, the SSHRC has had an awareness-raising, optional policy that supported and encouraged transitions to open access. The current state of feedback on draft provisions indicates similar emergent anxieties as those experienced by countries further along the process (quality, career progression etc.).

Michel Marian, of the French Ministry of Higher Education and Research, and Serge Bauin, an open-access expert at the Centre National de la Recherche Scientifique observed that there is currently a mixed open-access ecosystem of both green and gold at work in **France**. However, the high degree of institutional budgetary autonomy in this country has led to most efforts centring on individually controlled institutional repositories. It is also important to note that

there are fewer large academic publishers, or at least that there is a perception that this is the case, in France than elsewhere, which also contributes to a greater decentralisation in French research dissemination. There has been concern in the country over how OA might affect French-language journals, as these are less likely to attract international support. That said, as covered below, France is home to the OpenEdition platform, which is a pioneer in trialling free-mium models for gold OA.

Roberto di Lauro, the Scientific Attaché in the **Italian** Embassy, London, reported that, as of 7 October 2013, Italian law dictates that any material supported by public funds that appears in a journal with at least two issues published per year must be made open access through either the gold or the green route. For green OA an embargo of up to twenty-four months is allowed in humanities disciplines. A more recent call for research proposals at the national level halved the allowable embargo period and made compliance a condition of funding. Likewise, in **Denmark** there is a new commitment to achieving open access to 80% of articles produced in Danish research institutions by 2017 and 100% by 2022, primarily through the green route.⁸⁶

OA in **Japan** is also well under way, with the infrastructure provided by the National Institute of Informatics. The green and gold routes are given equal weighting here although funds from national funding agencies are allowed to be spent on APCs. There are nearly 300 institutional repositories although a challenge remains in the digitisation of Japanese-language publications.

The Netherlands, home to the OAPEN project – a key early player in the OA books scene, as covered below – has been committed, since November 2013, to a three-year transition to gold OA, according to Jos Engelen of the Netherlands National Organisation for Scientific Research. The country is currently (May 2014) in an awareness-raising phase while developing mechanisms for reporting. If it is deemed that there has not been enough voluntary progress by 2016, the government intends to put in place legislation to mandate OA, although the details of such a move have not been discussed in detail.

In the **United States**, as reported by Neil Thakur of the National Institute of Health and the Department of Health and Human

Sciences, a recent 2013 directive required all data from publicly funded research to be archived and made available to the public. While the USA's system is much more devolved and decentralised than its counterparts in many other countries, federal funding agencies are now implementing their specific policies and procedures with a twelve-month embargo for greenly deposited content. The National Institute of Health has required a deposit in a subject repository called PubMed Central since 2008 and sanctions for non-compliance are now in place. Of more direct relevance, the National Endowment for the Humanities (NEH) directly funded the Digital Public Library of America (DPLA) to the tune of \$1m in 2012, an open access project that aims to digitise and make available historical material from library collections that is out of copyright. Likewise, when digital humanities projects produce software outputs, the NEH strongly encourages (but does not mandate) that the results be open source.⁸⁷ This said, general awareness of open access, especially in the humanities, remains fairly low in the States and most OA mandates, where they do exist, are more likely to come from individual institutions rather than any state or funder requirement.

Finally, in the **United Kingdom**, there are green and gold mandates from HEFCE (the Higher Education Funding Council for England) and RCUK respectively. For any post-2014 Research Excellence Framework, it is a requirement that the 'accepted and final peer-reviewed text' of any journal article be uploaded to 'an institutional repository, a repository service shared between multiple institutions, or a subject repository such as arXiv' and that this be done 'as soon after the point of acceptance as possible, and no later than three months after this date'.⁸⁸ Monographs and edited collections are excluded from these requirements. Various exemptions are allowed, although these are mostly concerned with instances where deposit would be illegal (threats to national security etc.). There is one exception for when 'the publication concerned actively disallows open-access deposit in a repository, and was the most appropriate publication for the output'.⁸⁹ Since the overwhelming majority of publications for REF2014 would have been admissible for green deposit, however, it is not expected that this exemption will be frequently invoked. The maximum allowable embargo for

humanities disciplines under the current provisions is twenty-four months (it is unclear whether this will be reduced after a transition period).⁹⁰ The UK's Research Councils (RCUK) support both green and gold open access (and mandate that the author choose one form for journal articles), providing a block grant to institutions to cover APC payments for the latter. During the transition period, an embargo on the green route of up to twenty-four months is permissible in humanities subjects, a move with which HEFCE deliberately aligned itself in order to avoid confusion.⁹¹ RCUK requires that outputs be licensed under the Creative Commons Attribution License.⁹²

This list could expand almost indefinitely in both depth and breadth as mandates change and new conditions come into force, but the above does give some idea, even if less than comprehensive, of the scale and range of change that has happened fairly recently. Certainly, if open access was thought to be purely a localised phenomenon this has been proved definitively untrue. That said, the diversity of mandates, policies and preferences poses an enormous challenge for policymakers, publishers and academics who find that they must exist within an international ecosystem, subject to competing pressures.

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In this chapter I have broached some of the complexities of scholarly economics that underpin approaches to open access. From notions of prestige and symbolic capital through to questions about the commodity form of research, it is not a straightforward task to appraise the changes that will be engendered by a switch to supply-side payment systems or that green will have upon the current subscription mode. Furthermore, given the differences in international implementation and preferences for gold/green, the road ahead is not entirely clear. However, it is also apparent that the traditional economics of scholarly publishing are already extremely tangled and that while a switch to supply-side economics for gold open access could act as a stabiliser for academic publishing as a service industry, albeit without the high-risk/high-payoff potential that has previously existed, the regulation of scholarly economics is also tied to a

regulation of gatekeeping in at least some forms. With this in mind, however, it is now worth turning attention away from these economic matters and back to the other side of the economics of open access: the lowering of permission barriers through open licensing and the opening of research to modification and redistribution.