

Institution: University of Sheffield		
Unit of Assessment: D-34 Communication, Cultural and Media Studies, Library and Information Management		
Title of case study: Enhancing national and international open access policy and practice		
Period when the underpinning research was undertaken: 2013–2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Stephen Pinfield	Professor of Information Services Management	2012–present
Period when the claimed impact occurred: 2014–2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Policymakers, research funders, publishers and librarians in the UK and the EU have used Professor Stephen Pinfield's research findings to improve their approaches to financial planning and implementation of open access (OA). Pinfield's research has provided policymakers with the evidence to negotiate reduced prices on behalf of UK universities and develop new business models. He has also developed analysis used by universities to plan financially for expanding OA content. The National Library of Sweden has used his work to plan national approaches to OA. Professor Pinfield's findings also made a significant contribution to the evidence base used in developing the new, co-ordinated international OA approach, 'Plan S', drawn up by the European Commission.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Evaluating the total cost of open access for higher education institutions</p> <p>The drive to make academic research outputs open access has gathered momentum over the last decade but has created major challenges for policy and practice, particularly on costs for higher education institutions (HEIs). Professor Stephen Pinfield's research has focused on providing an evidence base for real-world solutions to address these challenges. Pinfield led ground-breaking work that examined the total costs faced by HEIs in providing OA. This included the costs of implementing 'hybrid' OA, where subscription journals allow papers funded by pre-publication article-processing charges (APCs) to be made OA. Pinfield collaborated with Jisc, the UK's higher education digital information service provider, to design the study and drew on Jisc in-kind support in collating and normalising data. The research addressed the controversial 'double dipping' issue, where publishers have two income streams from the same content – subscriptions plus APCs. The Sheffield findings set out for the first time the OA publishing costs for UK HEIs, modelling the 'total cost of publication' (TCP) which includes subscription, APCs and new administrative costs [R1]. They found that APCs constituted about 10% of the total cost of publication. The findings showed that HEIs were moving towards a hybrid model at a faster rate than was previously thought. This was significant because HEIs could plan their budgets to cater for more 'gold' OA (i.e. articles published OA in journals), but at the same time raised important questions about the sustainability of such an approach at those price levels.</p>		

Pinfield et al., updated these findings in subsequent research [R2, R3], funded by Universities UK (UUK). Parallel work showed that HEI administrative costs were found to be less significant than had been previously thought [R4]. These findings were important because they helped to clarify where HEIs needed to make investment. Most significantly, Pinfield's analysis of longitudinal data established that APC expenditure by UK HEIs was rising rapidly, and that hybrids were dominating APC payments (by number and value), even though APCs for hybrid journals were on average considerably more expensive than for fully-OA journals [R3]. At the same time, subscription prices were continuing to rise, causing an overall rise in the total cost of publication. The evidence showed APCs were new additional costs for HEIs [R3] and set out how HEIs should change approaches to take account of rising APC expenditure as part of overall budget allocations. The research findings developed a clearer picture of the APC market experienced by HEIs and provided the sector with data they could use for financial planning and forecasting.

Pinfield drew on this research for his contribution to two reports commissioned by Universities UK and published in 2015 and 2017 ('Monitoring Reports') [R2, R5]. The second of these presented further longitudinal analysis, covering 2012-2016. More generally, it established a detailed picture of the growth of OA in the UK and how it compared with global averages. It covered the rise in OA options available, the rise in take-up of those options, the increase in the use of OA materials (in absolute terms and relative to non-OA publications), and the increasing costs of OA for funders and institutions. In particular, the research established that the hybrid model was creating new and rising costs in the system and action was needed to ensure that APC costs were "offset" against subscriptions. A more robust offsetting model could be an important part of a transition to full OA. This evidence has been demonstrably important in informing subsequent policy development.

Analysis of the OA market in the EU

Pinfield's extensive research in OA policy, [R1-R5] led to his contribution to a wide-ranging report for the European Commission (under the auspices of the OpenAIRE FP7 project) on the European OA market and policy environment [R6]. The report, co-authored by Pinfield, surveyed the market and demonstrated that the European Commission was unlikely to meet its OA target for its funded outputs by 2020. This finding links to Pinfield's earlier work [R1, R3] that sets out the financial challenges being faced by HEIs responding to OA policy requirements. The research [R6] recommended that further policy intervention was required to address these problems, contributing to an impetus to develop a new approach, coordinated by the Commission, Plan S.

Research findings related to impact

Finding 1: Rising costs of current OA business models for HEIs, providing an evidence base for financial planning and negotiation with publishers, and illustrating the need to develop "offsetting" deals (where APCs are set against subscription payments) [R1-R4].

Finding 2: The need to shape hybrid as a transitional business model, by limiting payment of hybrid APCs to "approved" offset deals only. This could help enable transition to OA and create a sustainable future if implemented at scale with sufficient coordination [R3-R6].

3. References to the research (indicative maximum of six references)

- R1.** Pinfield, S., Salter, J., & Bath, P. A. (2015). The “total cost of publication” in a hybrid open-access environment: Institutional approaches to funding journal article-processing charges in combination with subscriptions. *Journal of the Association for Information Science and Technology*, 67(7), 1751–1766. <https://doi.org/10.1002/asi.23446>. Made available online as an accepted author manuscript (AAM), Oct 2014. (Salter and Bath were both employed by the University of Sheffield at publication).
- R2.** Jubb, M., Goldstein, S., Amin, M., Plume, A., Aisati, M., Oeben, S., Pinfield, S., Bath, P., Salter, J., Johnson, R., & Fosci, M. (2015). *Monitoring the transition to open access: A report for Universities UK*. Research Information Network on behalf of Universities UK. <http://eprints.whiterose.ac.uk/90213/>
- R3.** Pinfield, S., Salter, J., & Bath, P. A. (2017). A “Gold-centric” implementation of open access: Hybrid journals, the “Total cost of publication,” and policy development in the UK and beyond. *Journal of the Association for Information Science and Technology*, 68(9), 2248–2263. <https://doi.org/10.1002/asi.23742>. AAM published Mar 2016. (Salter and Bath were both employed by the University of Sheffield at publication).
- R4.** Johnson, R., Pinfield, S., & Fosci, M. (2015). Business process costs of implementing “gold” and “green” open access in institutional and national contexts. *Journal of the Association for Information Science and Technology*, 67(9), 2283–2295. <https://doi.org/10.1002/asi.23545>
- R5.** Jubb, M., Plume, A., Oeben, S., Brammer, L., Johnson, R., Bütün, C., & Pinfield, S. (2017). *Monitoring the transition to open access*. London: Universities UK. Retrieved from <http://bit.ly/2OKV6Ku>
- R6.** Johnson, R., Fosci, M., Chiarelli, A., Pinfield, S., & Jubb, M. (2017). *Towards a competitive and sustainable OA market in Europe – A study of the open access market and policy environment*. Brussels: Research Consulting. doi.org/10.5281/zenodo.401029.

Funding provided by Universities UK (for the ‘OA Monitoring’ studies, 2015 [R2] and 2017 [R5]), European Commission FP7 OpenAIRE project (for the OA Market study, 2017 [R6]). In-kind support provided by Jisc for Pinfield et al (2016 [R1]).

4. Details of the impact (indicative maximum 750 words)**Creating evidence for OA policy change for UK funders, publishers, and government**

Pinfield’s research has provided HEIs with the evidence to successfully negotiate offset deals with academic publishers. Offset deals are often called ‘read and publish’, ‘transitional’, or ‘transformative’ deals. His research has also underpinned policy changes at the EU level leading to greater OA content.

Research Councils: Pinfield’s research findings [R1] were crucial for the Burgess Review, the Research Councils UK (RCUK) 2014 review of its OA policy. Pinfield presented his findings [R1] to the Burgess Review Panel in autumn 2014. The Burgess Report [S1] made extensive use of Pinfield’s work, citing and reproducing data, analysis and commentary ([S1], pp.22-23). Pinfield’s findings led directly to the report recommendation: “*The panel recommends that RCUK continues to monitor this [cost rises identified by Pinfield] and if these costs show no sign of being responsive to market forces, then a future review should explore what steps RCUK could take to make this market more effective*” [S1, p.23]. RCUK accepted and implemented all the Burgess recommendations [S1]. This work paved the way for subsequent policy changes driven by the Science Minister that refer back to the Burgess Report, to address OA costs for HEIs.

Publishers / Jisc: The Science Minister tasked Jisc with developing an evidence-base for its negotiations with publishers on behalf of UK HEIs. Jisc Collections CEO in 2016, Lorraine Estelle, confirmed the impact of Pinfield's work on their understanding of the context and their negotiations: *"Professor Pinfield and his team have raised awareness of the issue and enabled HEIs to further develop their policies for managing the total cost of publication and to work together in assisting Jisc Collections to negotiate a managed transition to gold open access. As a result, Jisc Collections has had some considerable success in negotiating a change of policy with a number of large scholarly publishers including Wiley, and Taylor & Francis and Springer, who have now implemented offset systems"* [S2]. The offset deals highlighted by Estelle (Wiley, Taylor & Francis, and Springer) constituted over £62m of HEI expenditure, 2016-17, and are estimated to have involved over £11m in offset savings [S3].

Estelle observed [S2] that Pinfield's work [R1, R3] also informed the development of the *Jisc Principles for offset agreements*. His research is one of only two publications cited in the *Principles*, which were used as a basis for negotiations between Jisc, on behalf of UK HEIs, and publishers, 2015 to 2018 [S4]. The total savings from offset deals negotiated according to the *Jisc Principles* [S4] influenced by Pinfield's work is estimated to be worth £19.5m, 2015-17 [S3]. The *Principles* have since been updated and now refer to 'transformative agreements', but still cite Pinfield's work [R5], demonstrating that his research has had an ongoing influence in practice [S5, cites R5 as UUK (2017) *Monitoring the transition to open access*].

National government policy: In a 2016 report to Minister of State for Universities, Science, Research and Innovation drawing directly from Pinfield's findings [R2], Professor Adam Tickell, Chair of the UUK Open Access Coordination Group, recommended that a series of stakeholder working groups be established to stimulate further progress on OA. The Minister accepted the recommendations and the work which followed included commissioning of the 2017 Monitoring Report [R5], which proved to be influential. It was one of the key sources of evidence for Tickell's 2018 Advice to the Minister [S6]. Tickell's recommendations were accepted in full by the Minister, who in his formal reply to Tickell [S6] makes this clear: *"You have made a number of valuable recommendations on enhancing Open Access and I ask all stakeholders to consider them carefully, and to continue to strive for sustainable, equitable and open access to UK research."* The support of UK Research and Innovation (UKRI, itself within BEIS) for Plan S, the international initiative to accelerate OA, evidences this ministerial endorsement.

UKRI policy: In 2020, UKRI carried out a consultation on its OA policy. The consultation was underpinned by Pinfield's research [R5], as reflected by the proposal to continue to "increase access to the outcomes of publicly funded research" [S7]. The comments on funding hybrid APCs, for example, directly refer to Pinfield's research [R5]: *"given the slower than anticipated progress towards OA and the escalating costs as evidenced in the 'Monitoring the Transition to Open Access report' [reference to R5], UKRI's review will consider whether the terms and conditions on the use of funding for OA should be more restrictive."* The consultation document states that one option is to limit UKRI funding to fully OA journals only, or for hybrids where transformative or similar agreements are in place. Pinfield et al had suggested this as a policy option in 2016 ([R3] p.2261). A UKRI-commissioned report, of which Pinfield was coauthor, analyses responses to the consultation; it was submitted to UKRI in September 2020 and is due for publication in 2021 – evidence of Pinfield ongoing influence on policy development.

Max Hastings, the former OA policy lead at UUK and then UKRI, has confirmed Pinfield's impact on UUK and UK Government policy [S8]. Referring to the 2015 [R2] and 2017 [R5] Monitoring Reports, Hastings noted that: *"The key contribution of the work in which Prof Pinfield has been involved in the last five years [is] in establishing a clear evidence base for discussions amongst stakeholders in the UK (and beyond) and in providing a strong basis for policy decisions"* [S8].

EU impact

Plan S: Plan S is the EU's OA policy. It was launched as an agreement between various European funders in September 2018 and has since been extended to include funders from other countries beyond the EU (including the USA). Pinfield's research forms part of the Plan S evidence base for the initial dialogue with key stakeholders [R6]. Senior EU official Robert-Jan Smits, leader of the Plan S initiative reporting directly to the President of the European Commission until March 2019, has highlighted the importance of the report: *"This analysis [R6] was one of a number of pieces of evidence that made it clear that a radical and robust approach needed to be taken if there was to be any change in the system. Given the report's significance in forming our thinking, we approached the authors directly as part of our consultation process. These interactions with both [coauthor] Rob Johnson and Stephen Pinfield during the development of Plan S...helped to clarify the key points of their analysis and underlined the relevance of the research for our work"* [S9]. He goes on to note, *"We referenced the report [R6] and cited data from it as we developed our recommendations on the way forward"* [S9].

Swedish national policy: Pinfield's work has also directly impacted OA policy in EU member states. The Swedish National Library has used his work in national approaches to OA. Beate Eellend, Open Access Coordinator, states that *"many of the details of business process management and data collection we adopted were informed by Prof Pinfield's research, and we have used it as one of the key bases for our approach to managing our current expenditure of approx. 120 Million Swedish Crowns [£9.5m] on article processing charges"* [S10]. She outlined use of the methodological framework developed by Pinfield and colleagues in a 2020 Swedish project commissioned by central government: *"We used the methodology he and colleagues had developed at a detailed level to shape our approach"*.

5. Sources to corroborate the impact (indicative maximum of 10 references)

- S1.** RCUK sources. Burgess Review and RCUK response. R1 is cited on pp.22-23, 38, with extensive reproduction of data from R1.
- S2.** Former CEO of Jisc Collections (2016). Testimonial letter.
- S3.** Lawson, S. (2019). Evaluating UK offset agreements (2015–17). This provides evidence of the financial impact of Pinfield's work, but also R1 is cited on pp.4, 9; R2 on p.4; R3 on pp.4, 10, 11; R4 on pp.4, 9, 10; R5 on p.9.
- S4.** Jisc. (2015). Principles for offset agreements. R1 cited on p.1.
- S5.** Jisc. (2019). Requirements for transformative open access agreements: Accelerating the transition to immediate and worldwide open access. R5 cited on p.1.
- S6.** Advice to UK government Minister (2018). Tickell report and Minister's response. R5 cited as 'Universities UK (2017) Monitoring the transition to Open Access' on pp.9, 17, 19, 21, 23-24, 31-32, 34, 40, 49-50, 55, with extensive reproduction of data from R5.
<https://bit.ly/3970qyY>
- S7.** UKRI. (2020). UKRI open access review: Consultation. R5 cited as 'Universities UK (2017) Monitoring the transition to open access' on pp.5, 6 and 22.
- S8.** Testimonial letter (2019) from the former Lead on OA policy development at UK Research and Innovation (UKRI) and former Policy Lead on OA access at Universities UK (UUK),
- S9.** Open Access Envoy of the European Commission (2019) testimonial letter.
- S10.** Open Access Coordinator at the National Library of Sweden (2018) testimonial letter.