Beyond 'no fee': why Diamond Open Access is much more than a business model

Rupert Gatti, https://orcid.org/0000-0003-0676-9024,
Trinity College, Cambridge - Open Book Publishers, gattirupert@gmail.com

Pierre Mounier, https://orcid.org/0000-0003-0691-6063,
EHESS - OPERAS - OpenEdition, pierre.mounier@openedition.org

Johan Rooryck, https://orcid.org/0000-0001-7214-7405,
cOAlition S - Glossa - Leiden University, johan.rooryck@gmail.com

1. Introduction[1]

Diamond Open Access (OA) is rapidly gaining momentum in the academic publishing world. Several significant initiatives and developments are driving this trend, including the cOAlition S call for proposals on this topic in 2020 (cOAlition S 2020), the Open Access Diamond Journal Study in 2021 (Bosman et al. 2021), and the Diamond Open Access Plan in 2022 (Science Europe 2022). Notably, EU-funded projects like DIAMAS and CRAFT-OA, the Toluca Global Summit on Diamond OA (Redalyc 2023), the consultation about a Global Alliance for Diamond OA under the auspices of UNESCO, and the establishment of the European Diamond Capacity Hub (EDCH) are key contributors to this movement.

It is evident that there is currently no universally accepted definition of Diamond OA within the scientific community (Ancion et al. 2023). For some, Diamond OA is synonymous with 'no-fee' open access, while for others, it is associated primarily, if not exclusively, with 'institutional' OA publishing. In certain contexts, it is characterised as 'non-commercial' or 'non-profit,' alongside various other expressions that seek to convey similar meanings. This absence of a clear and uniform definition is, understandably, unsatisfactory for the academic community, which often seeks precision in its conceptual frameworks.

However, this very ambiguity opens a discursive space where the academic community can engage in critical reflection on its values, objectives, and expectations regarding scholarly communication. While the categorisation of OA by 'colours' has been justly critiqued (Tay 2021) for its imprecision and its overly broad generalisations, it should also be recognised for the important debates it creates a space for. These categories serve as 'trading zones': arenas

---

where diverse ideas, values, and opinions can be exchanged. Diamond OA is no exception in this regard.

Our contribution to this ongoing discussion seeks to explore the various dimensions of Diamond OA from multiple perspectives. This chapter, co-authored by three authors, is the outcome of a collaborative dialogue. At times, its form will reflect the dialogical nature of this exploration. By attempting to move beyond the simplistic and technical definition of 'no-fee' OA, we aim to uncover the complex dynamics that underpin knowledge production, as well as the roles that publishers, scholars, institutions, and academic communities play within these processes. Diamond OA is undoubtedly much more than merely 'no-fee' open access. But what, precisely, does it encompass?

2. Looking back

At the beginning of the 20th century, scholarly communication was primarily controlled by the scholarly community, conceived of as a public good with the objectives of sharing and disseminating research findings. The vast majority of journals operated with financial losses that were covered by the society's membership fees, a benevolent supporter or via institutional support. Commercial publishers existed – both Elsevier and Nature were founded in the late 19th century – but these commercial entities were primarily providing professional support to the society publishers. During the 20th century, particularly the second half of the 20th century and in the Northern hemisphere,[2] we witnessed the increasing commercialisation of the scholarly publishing industry. This commercialisation took two primary forms: via direct ownership or via the management of scholarly journals. Commercial entities increasingly acquired or created scholarly journals of their own, adopting the same model as scholarly societies for quality assessment, with scholars appointed to editorial boards, conducting peer review etc. but with very different ownership models and strategic objectives. Alternatively, they began managing the journal on behalf of a society and delivering a share of the operating profits to the academic society. In so doing the objectives for both commercial and many society owned journals pivoted away from providing a public good to a community of scholars towards generating a revenue stream and profit for the journal's owners and the publishers.

In their excellent overview of this transition, Fyfe et al. (2017) point out that the post-war expansion of the higher education sector internationally meant that, while the objectives of commercial and scholarly publishers were not identical, there was sufficient growth and financial support in the HE sector for the differing objectives not to clash. However that began to change in the 1980s with university budgets becoming tighter and the emergence of the 'serials crisis', where the increasing cost of subscribing to journals became more and more difficult for libraries to afford in an environment of tightening higher education budgets.
The 21st century saw both the emergence of digital publishing technologies, and – possibly as a consequence – increasing concentration of journal ownership and the bundling of journals by publishers into single retail packages (the so-called 'big deals'). The effect of both of these has

---

[2] We are not considering here alternative publishing cultures that existed and developed separately over the period (e.g. in Latin America, Africa, and parts of Asia).

been to reduce the diversity and strategic independence of journals. Using Web of Science data, Larivière, Haustein, and Mongeon (2015, see Figure 1) show that the proportion of papers published by the largest five publishers increased from under 20% to over 50% between 1970 and 2013, with the number of journals owned by the same publishers following a similar pattern. This means that the scholarly publishing industry is now dominated by the commercial objectives of a very small number of revenue focused publishers, rather than by the traditional 'public good' scholarly objectives.[3]
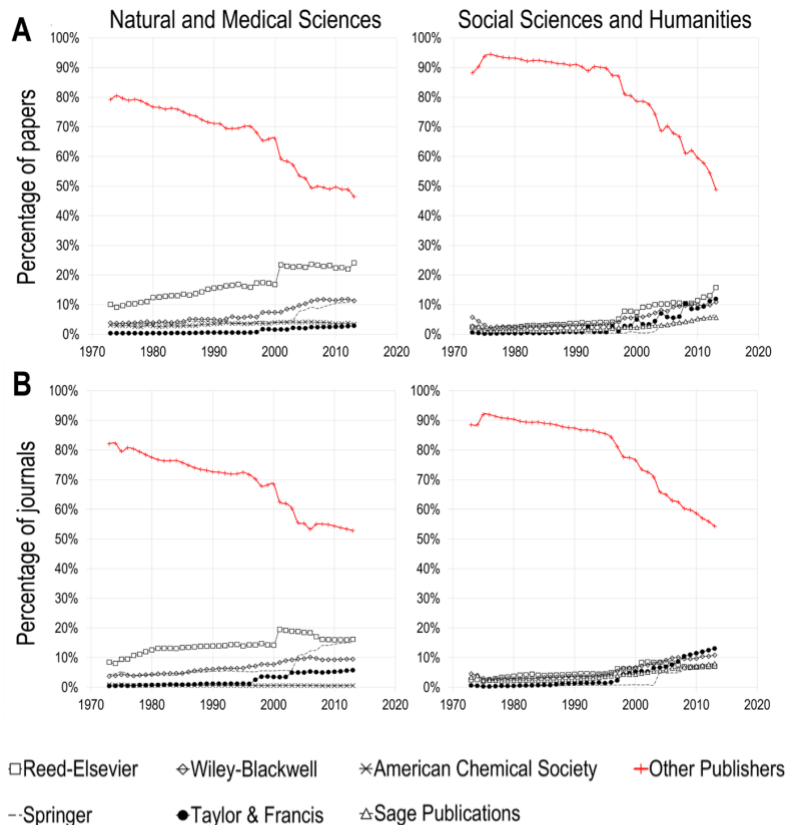

Figure 1: The Oligopoly of Academic Publishers in the Digital Era (Larivière, Haustein, and Mongeon 2015)

The relationship between scholarly societies and the journals they own is also changing, with many societies outsourcing the production and management of their journals to commercial publishers and relying on the share of profits received to finance other activities. A 2015 survey of 600 UK scholarly societies showed that just under half (279) owned a journal, with the majority of those (63%) publishing only a single peer-reviewed journal (Universities UK, 2015). Less than 30% (67) of those 279 societies published their journals 'in-house' however, with the vast majority outsourcing the publishing activities to commercial publishers or university

---

[3] It is interesting to note that one of the Big Five in Natural and Medical Sciences is a scholarly society, the American Chemical Society - operating to raise revenue for other society activities. The remaining are purely commercial entities.

presses. A follow up survey in 2023 showed that the number of societies publishing 'in-house' had fallen even further (to just 44) (Johnson and Malcolmson 2024). Interestingly, they go on to note that over the period of their study (2015-23) the society publishers who had maintained 'in-house' publishing operations had successfully sustained revenue growth in line with inflation while those with outsourced activities saw revenue decreases by an average of 30%. Similar falls in revenue/profits were not generally observed in the industry, suggesting that revenue shares returned to scholarly societies by publishers was falling. The authors suggest that this may be due to the reduced independence in revenue for individual journals funded via bundled agreements by their publishing partners, and question if outsourcing publishing activities in this way is still in societies' best financial interests.

Late et al (2024) suggest that there are significant differences in the activities of scholarly societies in the UK and other European countries, with publishing activities in the UK more commercialised and international than in non-English speaking countries. Surveying Social Science and Humanities societies across eight European countries (including the UK) they found that two-thirds (64%) of responding societies published at least one peer-reviewed journal and nearly 40% published at least one book series. The importance of supporting national interest and language publications was identified as an important motivation for many society publishing programs, but increased commercialisation of publishing activities was a trend generally noted.

At the same time, we have seen a dramatic increase in the number of new OA journals - some of these have been created by existing societies and publishers, but many reflect new publishing initiatives by societies or groups of scholars. Bosman et al. (2021) reveal that while a non-negligible part of the Diamond OA journals currently operating was 'flipped' at one moment of their existence from other models, a large share of them were created during the last 10 years.
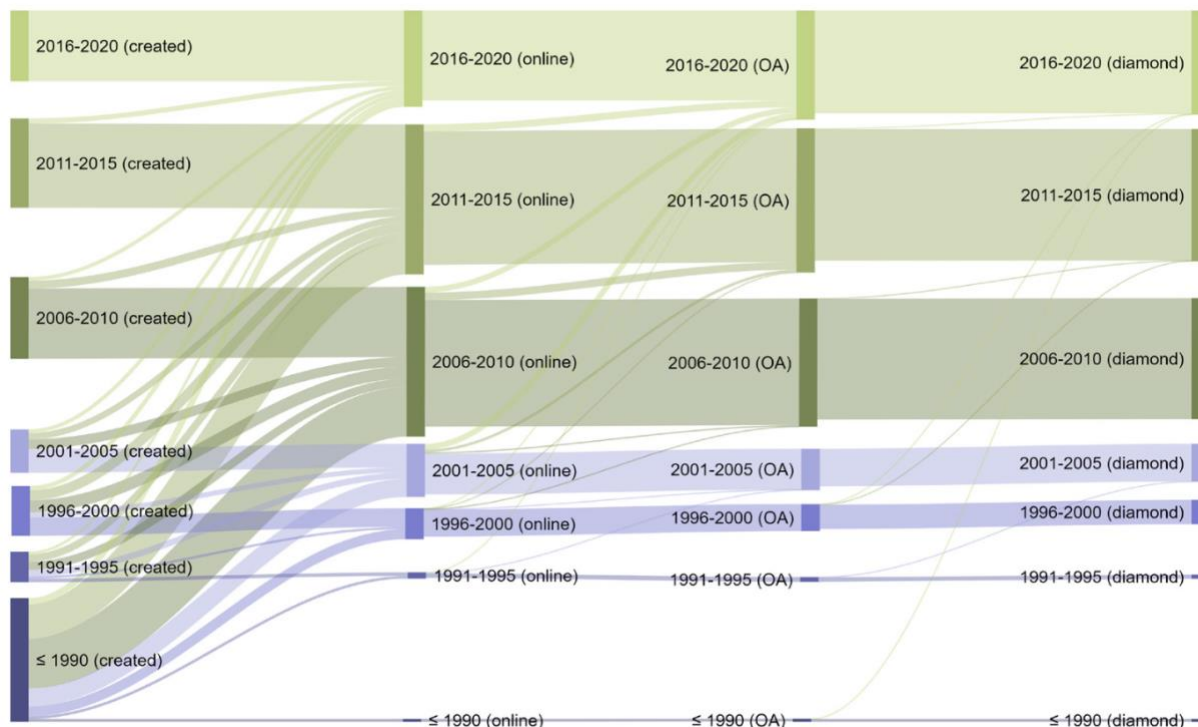
Figure 2: Years journals were created, made available online, made available open access, and made available as Diamond OA according to Bosman et al. (2021).

In conclusion, the majority of journals across both science and humanities disciplines are now owned and controlled by a very small number of large commercially oriented publishers. This is a relatively new and concerning phenomenon for scholarly communications. Many societies see publishing journals as one of their important functions, but (at least in the UK) the vast majority now outsource the production, management, and revenue strategies of their journals to third-party commercially oriented publishers. While these societies typically maintain control over the editorial content of their journals, they retain very little strategic independence over their journals' operations.

3. Regaining autonomy: Diamond OA beyond institutional publishing

In response to these challenges, the academic community is increasingly turning to Diamond Open Access as a sustainable and equitable alternative. Regaining control and ownership of publications, a concept once central to academia, is gaining renewed traction after a relatively short period dominated by the belief that scholarly communication should be entrusted to commercial entities for efficiency. Two key factors supported this perspective: the perceived technical superiority of the commercial publishing sector, and a narrow definition of research focused solely on data collection, analysis, and authorship.

However, the commodification of scientific knowledge in recent decades has fundamentally altered the nature of science and the role of researchers. The rise of the 'knowledge society' concept, which views knowledge as a resource for economic competition, has transformed

researchers into 'resource producers' within a larger system controlled by others. This shift aligns with the diminished decision-making power of researchers in scholarly communication. Researchers are exploited at every stage of knowledge production, from author to reader, serving a publication machine operated by commercial entities that view papers as standardised products evaluated through metrics like the impact factor (Nentwich 2001).

Several researchers, such as Fernanda Beigel (Beigel 2023) and others, argue that the power struggle between researchers and commercial publishers within journals and the broader scholarly communication sector is just one aspect of a larger conflict across the scientific field. The nascent effort to reform the scientific evaluation system through initiatives like CoARA, coupled with growing concerns about the governance of academic institutions (as noted by Gingras (2008)), clearly resonates with the renewed interest in 'scholar-led' initiatives such as Diamond OA.

The question of academic autonomy, constantly challenged by pressures from various sources such as religious, state, or economic powers, has a long and complex history. The enduring efforts of clerics, professors, researchers, and scientists to maintain a degree of autonomy in their work and resist external influences are fundamental to the very nature of academia. This struggle has manifested in various ways throughout history, from exemptions granted to mediaeval universities by temporal authorities to the development of academies during the Enlightenment, the Humboldtian system in the 19th century, the scientists' strike at the dawn of the atomic age, the adherence to Mertonian norms, and the popularisation of the concept of 'collective intellectual' by Bourdieu in the 1970s, among others. A historical analysis of scholarly publishing from the perspective of academic autonomy remains unexplored, and such an undertaking would likely yield valuable insights.

One common strategy for academics to establish a degree of autonomy and self-governance in their collective intellectual endeavours has been institutionalisation through the creation of universities, societies, and academies. While these institutions offer a degree of protection by establishing concrete, political, and symbolic barriers around knowledge, they also present challenges. They rely heavily on economic resources, necessitate governance structures (which inherently create power dynamics), and solidify academia within the social sphere, making it a more visible target than earlier diffuse intellectual networks. Thus, a paradoxical relationship exists between academics and their institutions. Institutions nurture, protect, and confer status upon academics, yet they also create a scientific field marked by power struggles, unequal resource distribution, and social dynamics that may have little to do with knowledge creation (Bourdieu 1988). The tension between the normative ethos of academics and the social reality of academia often leads to a continuous cycle of recreating or reforming academic institutions.

We propose that the dynamics of the scientific publishing sector cannot be solely attributed to the exploitation of passive academics by profit-driven commercial publishers. In reality, academics always actively shape the evolution of scholarly communication. Numerous examples exist where they invest in scholarly communication independently of, and sometimes in opposition to, their *alma mater*. The establishment of the prestigious Presses Universitaires de France by three professors outside of the University of La Sorbonne in the early 20th century, with the involvement of private capital, is one such instance. More recently, the

introduction of a law in France allowing public universities to mandate the Open Access deposit of faculty publications in institutional repositories sparked widespread protests against the perceived 'nationalisation' of scientific publishing and the erosion of academic freedom (Darcos, Ouzoulias, and Henriet 2022). In other words, collaborating with private, even commercial, publishers outside of their institutions is seen by some academics as a form of liberation from the power structures within the academic system. 'Non-institutional' publishing offers them an external resource they can leverage to navigate, counterbalance, or even reinforce these power relations, through the accumulation of symbolic capital.

In essence, the scientific field is far more extensive and diverse than academic institutions alone. It is structured by power relations built upon the mobilisation of various resources, including publication venues. Scholars can make use of these venues as authors, reviewers, editors, and even founders to enhance their position within, outside of, or in opposition to institutions.

This perspective on scholarly publishing reveals a far more complex landscape than the simplistic view of academics as exploited knowledge workers. While exploitation and value extraction undoubtedly occur, as evidenced by numerous studies (Chen, Posada, and Chan 2019), it often happens with the consent of the 'victims'. Situated at the intersection of multiple power systems, academics may strategically play one against the other.

This nuanced understanding is crucial for understanding the complex dynamics at play in Diamond OA as well. While Diamond OA cannot be reduced to a mere 'no-fee' economic model, it should not be equated with 'institutional publishing' either. Reality is far more intricate.

In March 2023, the DIAMAS project conducted a survey across the European Research Area to gain a deeper understanding of the characteristics, challenges, and capacities of what its participants termed 'Institutional Publishers and Service Providers' (IPSPs). The survey garnered approximately 700 valid responses from over 40 countries within the European Research Area. One of the questions explored the relationship between IPSPs and their parent institutions. The diverse range of responses highlighted the variety of relationships that exist. IPSPs may operate independently while being owned by the institution, function as a department within a larger department, or even operate from the institution's library. The relatively even distribution of responses across these options indicates the absence of a single dominant model, although variations may exist at the country or sub-regional level (Bosman et al. 2024).

The intricate web of relationships has been effectively visualised by Bosman & Kramer (2022):
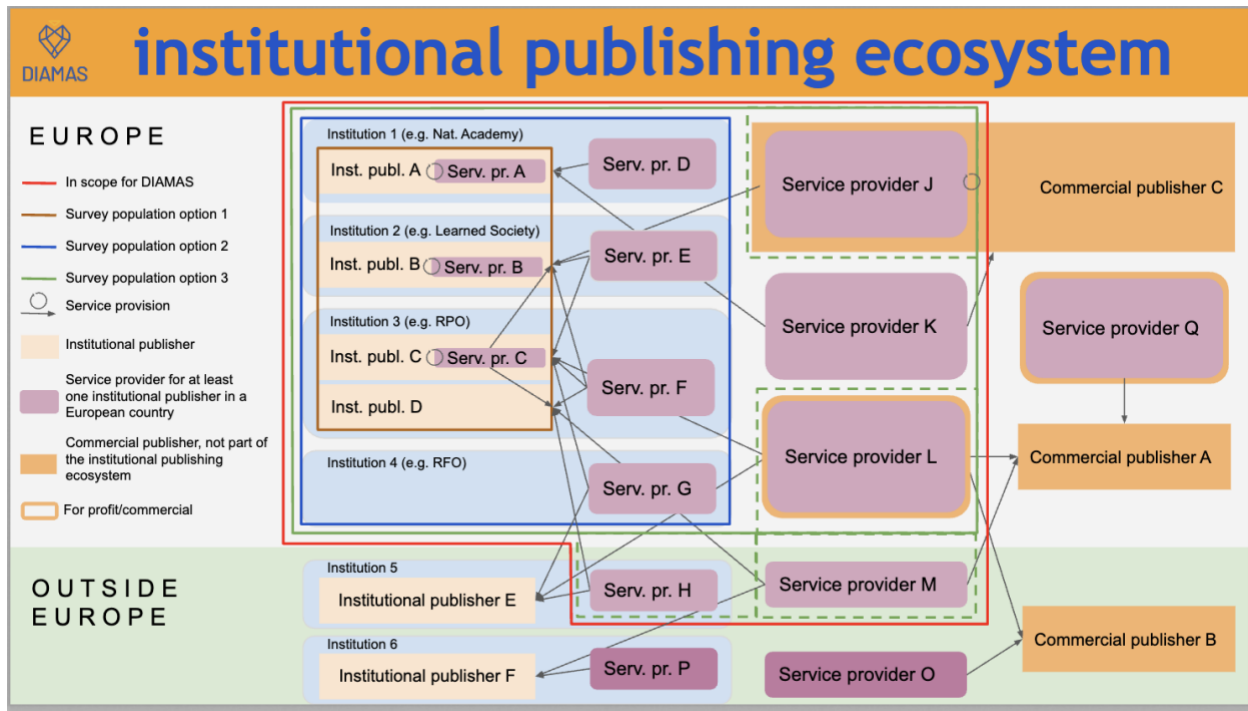
Figure 3: The institutional publishing ecosystem according to Bosman & Kramer (2022).

The complexity of the schema, reflecting real-world scenarios, adequately demonstrates the intricate web of relationships between institutions, institutional publishers and service providers, and commercial publishers and service providers. A Diamond journal may be owned by an institutional publisher but supported by one or more commercial service providers, or vice versa. All variations in the relationship between institutions and various publishing platforms exist in reality as scholars navigate this social space with varying degrees of adeptness, seeking to expand their autonomy beyond the core principles of editorial decision-making and peer review.

4. Defining scholarly communities

There's an additional element that hasn't been addressed yet, crucial for a deeper understanding of Diamond OA's dynamics: the role of scholarly communities. Unlike individual scholars, institutions, and publishing companies, scholarly communities are inherently more difficult to grasp and define. Less formal than institutions and incorporated organisations, they resemble fluid entities, constantly forming and dissolving, lacking clear boundaries and governance structures. To complicate matters further, scholarly communities can be nested within one another to an almost infinite degree. Take the 'community' of historians, for instance. It is, in reality, fragmented into sub-communities based on specific historical periods, methodologies, theoretical approaches, and research topics. Some historians feel closer to anthropologists than to fellow historians.

Recognising the fluid nature of this subject and avoiding any definitive pronouncements on the essence and role of communities in scholarly publishing, the three authors of this chapter have opted to share their personal perspectives on scholarly communities instead.

4.1. The Glossa *community (Johan Rooryck)*

I would like to argue that a journal represents a community that is perfectly capable of self-organisation. *Glossa: a journal of general linguistics* is a Diamond OA journal in linguistics that sprang from the ashes of Elsevier-owned *Lingua* in 2016, when its Editorial Team and Board, as well as its reader and author community, decided to abandon *Lingua* over a disagreement about journal ownership, Open Access, and the affordability of APCs. Eight years later, the move of the community to the new journal has been an unmitigated success: the journal recently published its 1000th article. *Glossa* clearly occupies the same standing in the community as *Lingua* in 2015. This is evidenced by the fact that it now occupies the same spot in the Google Scholar h5-index where *Lingua* used to be in 2015. By contrast, although the title *Lingua* continues to exist with an enlarged aims and scope, it failed to stay in the GS h5-index as soon as the 5-year afterburn effect of the articles curated by the original team had run its course.

In the widest sense, *Glossa*'s community is constituted by the editorial board members, reviewers, authors, and readers who decided to trust the editorial team enough that they continued to submit their articles and reviews to the new journal rather than to the old one. There is no formal membership: the *Glossa* community is a loose group of linguists worldwide who are interested in the kind of work that is described in the aims and scope of the journal. I estimate it to roughly involve between 7500 and 10.000 members. The journal's masthead stated that *Glossa* "publishes contributions from all areas of linguistics, provided they contain theoretical implications that shed light on the nature of language and the language faculty." This means that the editorial team reserves the right to desk-reject articles that in their view do not conform to this requirement. The aims and scope of a journal set the perimeter of the commons of the community, so to speak.

As stated by Potts et al. (2016), a journal community is a 'knowledge club', and the journal's articles and title are club goods. A club, of course, is a type of community. With that realisation come responsibilities that are no longer taken care of by a servicing entity like a commercial publisher. The editorial team and board have to decide how they want to run the journal (e.g. author and reviewer guidelines), what the journal's ownership and governance structure is (who owns the title? How are editors selected?);[4] and what services they will use (platform, copy-editing, typesetting). So within the community, a core group of people develop proposals and decisions on those elements, and make them transparently available for the other members of the community. *Glossa* is lucky to be presently published by the *Open Library of Humanities*, who support the journal by putting the Janeway publishing infrastructure at the disposal of the editorial team, and by paying for the copy-editing and typesetting services of

---

[4] For *Glossa*'s governance and ownership structure, see here https://www.glossa-journal.org/site/governance/

SiliconChips. Editors perform editorial services as part of their service to the field and do not receive payment.

Glossa also has an innovative governance and ownership structure: as stipulated in its Constitution (https://www.glossa-journal.org/site/governance/), the legal ownership of *Glossa*'s title is in the hands of the Dutch nonprofit foundation (Stichting) *Linguistics in Open Access* (LingOA), which has granted beneficial ownership of the journal title to *Glossa*'s General Assembly, i.e. the joint members of its Editorial Team and Board. This divided ownership conveniently makes selling the journal title extremely difficult, thus obstructing any undue attempts at acquisition or temptations to sell. Indeed, I have personally been offered up to a million dollars for the acquisition of the journal, a sum that is easily understood in the context of an imagined Gold OA conversion of the annual output of the journal. With a current average of 120 articles published per year, a Gold OA conversion of *Glossa* charging an APC of $2500 could easily make its publisher a tidy gross income of $300.000 before production costs and taxes. Now I just point interested parties to our Constitution.

The community is therefore organised as a set of nested, gradually widening, concentric circles: the editorial team that handles the daily running of the journal, sending out articles for review, making publishing decisions and finalising papers for publication; the editorial board, who have a say in how editors are selected and can provide solicited and unsolicited advice on matters of governance and service provision; the authors and reviewers who provide the journal with papers and reviews; and finally the wide community of readers who will use, build on, and cite the published articles.

4.2 Community ownership and control (Rupert Gatti)

I particularly appreciate the conception of the scholarly communities around a journal as a series of widening concentric circles. My own experience is predominantly in scholarly book publishing - and similar communities can be articulated around both individual books and book series. Books create multiple communities of readers, some within researchers' circles, some within education communities and some within non-academic communities - each of which may coexist without significant interaction, and in many cases independently from the author as well.

There is another community to consider around scholarly research however, and that is the communities involved in the research itself. Researchers who study specific communities and cultures and choose to publish their findings in closed access publications (for their own careers and benefit) exclude the very communities and cultures they study from access to their findings. Geoffrey Khan has voiced this concern succinctly:
"... the communities whose cultures the academics described [in traditional closed access publications] could not themselves get access to these descriptions of their own culture. To put it bluntly, it was a form of depredation and asset-stripping that benefited the career of academics but had no benefit for the communities themselves. Open-access publishing is the solution to this immoral practice …" (Kahn 2024)

One primary motivation for many authors who publish open access monographs is a recognition and desire to increase engagement of their work and research with the elements of

those communities that have been marginalised and excluded by the pricing and controlled access of traditional non-OA publishing.

It should also be recognised that the communities surrounding a journal or publishing structure may also be exclusionary. As stated earlier, journals and scholarly communities cannot be separated from the power dynamics within the community - implicitly or explicitly 'defining' the nature and quality of research within that sub-discipline. Who is or is not accepted into the tighter and more powerful, discipline defining, inner circles? These processes are political, structural and behavioural. Are in-person interactions (or indeed patronage) essential for acceptance and promotion with a group? Who is being excluded by these (possibly unrecognised) community practices? Pierre discusses these issues in more depth in the next section, but I would like to note that while open access certainly enhances the opportunity for inclusiveness of broader communities, it is not in itself sufficient. The ownership and governance of the journal are also critically important.

Johan has described the difficulties that can emerge when the objectives of the owners of a journal (*Lingua*) and the community surrounding the journal diverge, and outlined the formalised legal and governance structures *Glossa* has created specifically to protect and represent the interests of the broader, less formally defined, community. Bosman et al (2021) note that while the majority of the Diamond OA journals they identified were owned by research institutions or scholarly society, half of them had no legal documentation establishing ownership. In considering terms such as 'community-owned', 'community-controlled' and 'community-led' it is the importance of these formal structures that I would like to consider further.

Legal ownership of a journal matters, the legal owners are the ones who have ultimate strategic control over the objectives and purpose of the journal. Guaranteeing editorial independence for a scholarly editorial board is important, but does not give that scholarly group or the community the journal serves any direct control over production processes, marketing and pricing strategies, open access strategies or (indeed) whether the journal continues to exist or not. The only way the scholarly community can respond to strategic decisions by the owners that they disagree with is to leave the community - as we have seen with *Lingua*, and many other journals in recent years.

But what does it mean for a journal to be community-owned? Can a scholarly journal owned by a single member of the scholarly community, such as a university or university press for example, claim to be 'community-owned'? My colleagues in COPIM have been considering these issues in the context of infrastructure and they highlight the importance of enabling a broad community ownership and not having a single owner, however benevolent (Moore 2021, Hart et al. 2022, Fathallah 2023). When the owner is a single entity and can act unilaterally then strategic decisions can be made that support the owner's objectives but may be detrimental to the communities surrounding the journal. *Lingua* is one example where this occurred for commercial reasons, but university administrators have stopped supporting their presses with very little (if any) consideration for the communities surrounding and supporting the journals they publish, and publishers have been sold to alternative owners, or taken over by new management, bringing in a very different set of strategic objectives. These changes in objectives

may impact not only future authors and publications, but also past publications and authors. Many journals require copyright for the articles published to be transferred from the author to the publisher or owners of the journal, and so any new owners have strategic control over all previously published works, and access to those works by the community, for the duration of copyright.

The consensus from the COPIM research is that the scholarly communities relying on or supporting scholarly infrastructure should have direct roles in the ownership of the infrastructure (Hopkins et al. 2024). Consequently, for a journal to be community owned the broader community supporting and relying on it should also have direct involvement in its ownership structure and decision making.

But community ownership is only one part of the consideration, the community also needs to exert control over the strategic production decisions for the journal. As we noted earlier, many societies (with robust community governance models) have outsourced the production of their journals to specialised publishing entities. While, technically, the owners may have the right to cease or renegotiate these agreements, many providers introduce lock-in strategies that make it very difficult for journals to leave (cf. Principle 5 in Rooryck 2023). These processes include providing specialist (proprietorial) journal management and editorial software, peer-review records and databases, connectivity with selected data repositories and research software and pricing strategies. A recent and powerful addition to the arsenal of lock-in strategies is the emergence of 'big-deal' and 'read-and-publish' deals in which a collection of journals are sold as a single bundle. In these cases the publisher receives a large payment from a single university or institution which is then allocated between the publisher on one hand and across the portfolio of journals provided on the other. Not only do the individual journals have very little agency in the purchase price agreed or in determining the nature of the allocation mechanism, but the journals involved also lose any direct relationship with the institution making the payment. When libraries (for example) subscribed to an individual journal managed by a third-party publisher, the journal could still decide to publish the work in-house, or transfer operations to an alternative provider, without losing the associated subscriber base and revenue stream. Once the journal has been subsumed within a bundled funding model this option is no longer available to them, as the journal no longer has any individual subscribers. Effectively, all the journal owners can do is switch to an alternative publisher's 'bundle', losing strategic independence and the possibilities for in-house publishing or engaging smaller specialist providers.

This has implications for collective funding models designed to support community-owned journals and Diamond OA publishing models. The collective funding should be defined around the journal ownership group - not the provider. Funding models that support large portfolios of journals owned by different scholarly communities relinquish strategic control of the journals away from the journals' owners to the bundle provider, and so should be avoided in favour of models that recognise and support the journal/community itself. The model adopted by the Open Book Collective is a good example of this - providing a mechanism for libraries to support a collection of individual publishing initiatives but maintaining a clear and transferable association of the revenue stream with the entity being supported.

For a community to have genuine strategic and intellectual control over a journal it needs to have direct control over the ownership of the journal, effective control over the management and operations of the journal, and control over the revenue sources for the journal - in addition to control over the editorial decisions of the journal.

4.3 How infrastructures shape communities (Pierre Mounier)

Recent scholarship (Bosman et al. 2021) has unequivocally highlighted the pivotal role of infrastructures in the advancement of Diamond OA, positioning them as indispensable pillars in the evolving landscape of scholarly communication. As evidenced by various studies (e.g., Dufour et al. 2023), a substantial segment of the Diamond OA ecosystem thrives on an in-kind, non-monetary economy, sustained by the voluntary contributions of researchers and the provision of infrastructural services (DIAMAS study). However, while the centrality of infrastructures to Diamond OA publishing is undeniable, a comprehensive understanding of this role necessitates a deeper exploration that transcends mere acknowledgement and explores the intricate dynamics at play.

A conventional, and seemingly straightforward, approach is to conceptualise a unidirectional relationship predicated on service provision: pre-existing communities have needs that are met, or not, by infrastructures. This functionalist, and somewhat mechanistic, perspective, while offering a basic framework, oversimplifies the nuanced reality. It has long been established that infrastructures, despite user perceptions of static utility, are not passive entities. Instead, they engage in dynamic, multidirectional interactions, a concept captured by Bowker & Star's (2000) use of 'to infrastructure' as a verb, implying an active and reciprocal process.

To exemplify, a road, a typical infrastructure, is not merely a platform for vehicles; its very design and trajectory are influenced by the traffic it accommodates, the weight of the vehicles, and their turning radius. Conversely, the road itself 'infrastructures' the vehicles, influencing their design and capabilities by enabling or constraining their movement, dictating speed limits, and facilitating specific modes of transport. Therefore, a holistic understanding of terrestrial transport necessitates the study of roads, vehicles, fuelling stations, signage, traffic regulations, and their complex interrelationships. These elements evolve symbiotically within a dynamic, interdependent system (or ecosystem), shaping one another through continuous feedback loops and mutual adaptation. This inherent complexity explains the difficulty policymakers encounter when attempting to effect radical systemic change, such as a transition to electric vehicles (or Diamond OA).

Similarly, the dynamic interplay between research practices and scholarly communication infrastructures is multifaceted. While extensively explored in broader scientific contexts, notably in Paul Edwards' seminal work, *A Vast Machine*, (Edwards 2010) its specific manifestations within the realm of Diamond OA warrant further investigation. The interactions are evident, as scholarly communities often coalesce around publications, particularly journals, as exemplified by Johan's argument, which serve as focal points for knowledge dissemination, debate, and collaboration. Scholarly communication infrastructures, through the regulations and conditions imposed on supported journals, the implemented technical standards, and their

design and interfaces, exert a formative influence on communities in diverse and often subtle ways.

This influence is particularly salient in the context of platforms (Plantin et al 2016), which, by design, can incentivize the fragmentation, amalgamation, maintenance, or dissolution of scientific communities. These incentives may be 'hard', manifested through explicit rules, or 'soft', subtly embedded within design elements such as index granularity, journal visibility within the platform, editorial autonomy, and the branding interplay between platforms and the communities they serve. For instance, a platform that prioritises interdisciplinary research through its indexing structure may encourage collaboration across traditionally distinct fields, while one that emphasises individual journal branding might reinforce existing disciplinary boundaries. Furthermore, the technical affordances of a platform, such as support for multimedia content or interactive data visualisation, can shape the types of research produced and disseminated within the community.

To extend the concept of community, one must consider infrastructures themselves as part of it. Many of the infrastructures supporting Diamond Open Access (OA) today—such as PKP, OLH, OpenEdition, Redalyc, and Hrcak—were established by scholars who initially developed these systems to meet the needs of their own journals. Over time, however, the tools they created have evolved into shared infrastructures, supporting dozens and eventually hundreds of journals with comparable features. These infrastructures embody a vision aligned closely with that of a scholarly community, thus laying the groundwork for community building around them.

As these infrastructures scale, however, they progressively enter a new dimension, moving further from the initial community-focused logic centred on a single or limited set of journals. Increasingly, infrastructural growth brings constraints associated with human resource management, large-scale financial sustainability, technical upkeep, and user relations, as users begin to behave more as consumers than as community members. Operational streamlining, efficiency demands, rigorous oversight, and, ultimately, bureaucracy, become prevalent and begin to transform the character of the infrastructure itself.

More significantly, upon reaching a certain scale, these infrastructures are compelled to develop closer relationships with external entities, such as government agencies, library consortia, and large funding bodies. These institutions impose specific requirements and often introduce their own organisational culture, shaping the infrastructure in ways that may diverge from its original communal values. Consequently, these infrastructures face moral dilemmas as they struggle to balance their scholarly foundations with an administrative and technical culture that, in some respects, contradicts the very notion of community.

Ultimately, infrastructures initially rooted in a specific scholarly community find themselves compelled to serve multiple other communities, necessitating a gradual departure from their communitarian essence in order to fulfil these broader obligations.

In collaboration with Simon Dumas-Primbault, we modelled the fundamental tensions and vulnerabilities that scholarly infrastructures must constantly address, as they are perpetually stretched across competing dimensions and issues (Mounier & Dumas-Primbault 2023). Our

work investigated several cases to analyse how governance practices are embedded within knowledge infrastructures to shape not only their formal structures but also the communities with which they engage. While not exclusive to Diamond OA infrastructures, and encompassing a broader spectrum of knowledge infrastructures, our study could help to elucidate the intricate relationships between infrastructures and communities in the context of Diamond OA. Our primary objective was to better understand how the governance of knowledge infrastructures reflects not only how these infrastructures are governed but also, concurrently, how they govern their surrounding environment—what we refer to as their 'milieu.' a concept drawn from Gilbert Simondon (Simondon, 1958). We underscore the ways in which infrastructures mediate connections between diverse actors, objects, and values, forging collaborations across heterogeneous elements.

From this perspective, the governance of an infrastructure is just one side of a larger dynamic: the other side is how an infrastructure, through its management of shared spaces, socio-technical apparatus, and stakeholder networks, actively shapes its surrounding environment. These governance practices must simultaneously accommodate the diversity of epistemic traditions across the scientific communities they support, and justify their existence to a wide range of funding bodies, including government agencies, public institutions, and both private and public funders.

In my view, these multifaceted, multidirectional relationships between infrastructures and scholarly communities—including the ways in which publications are processed, managed, stored, indexed, categorised, disseminated, and preserved—warrant more in-depth exploration in the Diamond OA context. If Diamond OA represents 'more than just a business model,' it requires a comprehensive examination of governance practices, not only at the publication level but also in relation to the communities and infrastructures that underpin them.

5. Fostering Diamond OA in Europe and worldwide

The intrinsic, community-driven nature of the Diamond OA model is actively shaping ongoing efforts to advance and consolidate this model within the scholarly communication landscape, both in Europe and globally. This community orientation clarifies why certain types of actors, rather than others, lead this initiative, why it progresses slowly and methodically, and why it depends so heavily on fostering dialogue within the community to build broad consensus.

The push to promote Diamond OA in Europe began in earnest with the 2020 cOAlition S/Science Europe call for tender. A consortium was selected to study the diverse landscape of Diamond OA journals, especially within Europe but also on a global scale. Notably, the consortium assembled no fewer than ten organisations representing a wide variety of stakeholders, including several umbrella organisations—a rare occurrence given the limited funding available. From the outset, it was clear that this study should be conducted by a diverse and inclusive team to ensure a rich and comprehensive understanding from the community, using a highly participatory approach. The resulting Open Access Diamond Journals Study (Bosman et al. 2021) offered key insights into the current state and potential of Diamond OA

journals. It underscored both the model's strengths—commitment, quality, values—and its challenges, such as fragmentation, underfunding, and limited visibility.

This initial study spurred further interest in aligning and developing sustainable, non-commercial, community-led publishing initiatives, culminating in the 2022 Action Plan for Diamond Open Access. This plan laid out a strategic framework for strengthening Diamond OA by enhancing the visibility, quality, and sustainability of Diamond OA publications, helping them compete with commercial journals in terms of impact and recognition. To date, over 160 organisations have committed to implementing at least one action from this plan. The diversity of these organisations across countries, disciplines, and sectors illustrates the scholarly community's collective will to overcome the existing obstacles to Diamond OA's expansion. This breadth of participation calls for a broader conception of 'community,' extending beyond traditional boundaries to encompass not only researchers but also librarians, publishing professionals, technologists, policymakers, and funders—creating an egalitarian space that challenges conventional power dynamics within the scholarly ecosystem. This spirit of shared values and objectives exemplifies why Diamond OA is more than a business model; it is a community-oriented approach underpinned by a commitment to equitable access and collaboration.

European Commission-funded projects such as DIAMAS and CRAFT-OA (2022–2025) have also played a vital role in this ecosystem. CRAFT-OA seeks to enhance the technical and infrastructural capabilities of Diamond OA publishing, while DIAMAS promotes community collaboration and best practices. These projects provide essential resources to help Diamond OA journals thrive, but beyond this, they cultivate a long-term community of scholars and organisations committed to consolidating the dispersed resources and actors across Europe. While the European Commission's framework for funded projects is sometimes seen as burdensome, its structure enables collaborative initiatives with a clear distribution of roles and with decisions taken by consensus and with full transparency. Indeed, the collaborative culture and coproduction of outcomes within these projects are arguably as significant as the outputs themselves.

On an international level, collaboration has been strengthened through initiatives like the Toluca Diamond OA Summit and the establishment of the Global Alliance for Diamond OA under the auspices of UNESCO. These platforms enable stakeholders worldwide to share ideas, best practices, and resources, fostering a unified approach to supporting Diamond OA. Nevertheless, the challenges are considerable, given the socio-economic and cultural diversity among global participants, which result in diverse interpretations of Diamond OA that will take time and concerted efforts to reconcile.

In Europe, specific efforts to coordinate community resources and building capacity are coalescing around the European Diamond Capacity Hub. This Hub aims to support Diamond OA publishers across Europe, providing tools, training, resources, and networking opportunities to enhance publication quality and sustainability. Although a relatively small number of actors currently spearhead this initiative, the objective is to establish a distributed social infrastructure encompassing over 3,000 organisations across the European Research Area, as suggested by an initial survey conducted by the DIAMAS project. Coordinating such diverse stakeholders at scale

will be challenging but essential, as the unique nature of the Diamond OA model demands that resources, coordination, and support be developed within the community, and by the community.

6. Conclusion

In conclusion, the rise of Diamond OA represents a significant shift towards a more sustainable, equitable, and community-driven model of academic publishing. However, the academic community faces the critical challenge of defining and supporting organisations that truly represent their interests. By addressing this challenge and reclaiming control and ownership of their publications, the academic community can ensure that the dissemination of scientific knowledge is guided by scholarly values and integrity, rather than commercial interests. This movement not only addresses the current challenges of the publishing system but also aligns with a broader vision of maintaining the autonomy and credibility of the scholarly domain.

References

Ancion, Zoé, Jean-François Lutz, Irini Paltani-Sargologos, & Pierre Mounier. 2023. 'Le Modèle d'accès Ouvert Diamant : Politiques et Stratégies Des Acteurs Français'. Billet. *The Diamond Papers* (blog). 7 July 2023. https://doi.org/10.58079/12710 .

Beigel, Fernanda. 2023. 'A Transformative Relation between Publishers and Editors: Academic Autonomy at Stake.' https://doi.org/10.31219/osf.io/pf89t

Bosman, Jeroen, Jan Erik Frantsvåg, Bianca Kramer, Pierre-Carl Langlais, & Vanessa Proudman. 2021. 'OA Diamond Journals Study. Part 1: Findings'. Zenodo. https://doi.org/10.5281/zenodo.4558704.

Bosman, Jeroen & Bianca Kramer. 2022. 'The Institutional Publishing Ecosystem, Publishing and Service Providers: Scope and Concepts for DIAMAS'. November 30. https://doi.org/10.5281/zenodo.7378067.

Bosman, Jeroen, Bianca Kramer, Jadranka Stojanovski, Iva Melinščak Zlodi, Jan Erik Frantsvåg, Tabea Klaus, Julian Schima, et al. 2024. 'Institutional Publishing in the ERA: Full Country Reports'. Zenodo. https://zenodo.org/records/10026207 .

Bourdieu, Pierre. 1988. Homo academicus. Stanford University Press.

Bowker, Geoffrey & Susan Leigh Star. 2000. *Sorting Things Out. Classification and Its Consequences.* Cambridge, MA: The MIT Press.

Chen, George, Alejandro Posada, & Leslie Chan. 2019. 'Vertical Integration in Academic Publishing : Implications for Knowledge Inequality'. In *Connecting the Knowledge Commons — From Projects to Sustainable Infrastructure : The 22nd International Conference on Electronic Publishing – Revised Selected Papers*, edited by Pierre Mounier. Laboratoire d'idées. Marseille: OpenEdition Press. http://books.openedition.org/oep/9068 .

cOAlition S. 2020. 'Exploring Collaborative Non-Commercial Publishing Models for Open Access: Apply to Perform a Study | Plan S'. 27 March 2020. https://www.coalition-s.org/exploring-collaborative-non-commercial-publishing-models-for-open-access/

Darcos, Laure, Pierre Ouzoulias, & Pierre Henriet. 2022. 'Pour une science ouverte réaliste, équilibrée et respectueuse de la liberté académique'. https://www.senat.fr/rap/r21-

573/r21-573.html.

Edwards, Paul N. 2010. *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*. Infrastructures. Cambridge, MA, USA: MIT Press.

Fyfe, Aileen, Kelly Coate, Stephen Curry, Stuart Lawson, Noah Moxham, & Camilla Mørk Røstvik. 2017. 'Untangling Academic Publishing: A History of the Relationship between Commercial Interests, Academic Prestige and the Circulation of Research'. https://zenodo.org/records/546100.

Dufour, Quentin, David Pontille, & Didier Torny. 2023. 'Supporting diamond open access journals: Interest and feasibility of direct funding mechanisms'. Nordic Journal of Library and Information Studies 4(2): 35-5, https://tidsskrift.dk/njlis/article/view/140344

Fathallah, Judith. 2023. 'Governing Scholar-Led OA Book Publishers: Values, Practices, Barriers (2.0).' Zenodo. https://zenodo.org/records/7816770

Gingras, Yves. 2008. 'La fièvre de l'évaluation de la recherche – Du mauvais usage de faux indicateurs'. *Bulletin de méthodologie sociologique. Bulletin of sociological methodology*, no. 100 (October), 42–44. https://journals.openedition.org/bms/3313

Hart, Patrick, Janneke Adema, & COPIM. 2022. 'Towards Better Practices for the Community Governance of Open Infrastructures (1.0).' https://doi.org/10.5281/zenodo.6535460

Hopkins, Kira, Janneke Adema, Lucy Barnes, Joe Deville, Judith Fathallah, Rupert Gatti, Anna Hughes, Kevin Sanders, & Toby Steiner. 2024. 'The Copim Perspective on Community-Led.' Copim. Retrieved November 8, 2024 from https://doi.org/10.21428/785a6451.cc2195f3

Johnson, Rob, and Elle Malcolmson. 2024. 'You Don't Know What You've Got till It's Gone: The Changing Landscape of UK Learned Society Publishing'. https://doi.org/10.5281/zenodo.11181017.

Kahn, Geoffrey. 2024. 'Open Access publishing: A series editor writes.' Retrieved November 8, 2024 from Open Book Publishers Blog. https://blogs.openbookpublishers.com/open-access-book-publishing-a-series-editor-writes/

Late, Elina, Raf Guns, Janne Pölönen, Jadranka Stojanovski, Mimi Urbanc, & Michael Ochsner. 2024. 'Beyond borders: Examining the role of national learned societies in the social sciences and humanities.' *Learned Publishing*, *37*(3). https://doi.org/10.1002/leap.1609

Larivière, Vincent, Stefanie Haustein, & Philippe Mongeon. 2015. 'The Oligopoly of Academic Publishers in the Digital Era'. *PLoS ONE* 10 (6). https://doi.org/10.1371/journal.pone.0127502.

Moore, Samuel. 2021. 'Exploring models for community governance (1.0).' https://doi.org/10.5281/zenodo.4730687

Mounier, Pierre & Simon Dumas Primbault. 2023. 'Sustaining Knowledge and Governing its Infrastructure in the Digital Age: An Integrated View'. https://cnrs.hal.science/OPENEDITION/hal-04309735v

Nentwich, Michael. 2001. '(Re-)De-Commodification in Academic Knowledge Distribution?' *Science & Technology Studies* 14 (2): 21–42. https://doi.org/10.1371/journal.pone.0127502

Plantin, Jean-Christophe, Carl Lagoze, Paul N. Edwards, & Christian Sandvig. 2016. 'Infrastructure studies meet platform studies in the age of Google and Facebook. New Media & Society.' ISSN 1461-4448 DOI: https://doi.org/10.1177/1461444816661553

Potts, Jason, John Hartley, Lucy Montgomery, Cameron Neylon & Ellie Rennie. 2016. 'A Journal is a Club: A New Economic Model for Scholarly Publishing'. (April 12, 2016). Available at

SSRN: https://ssrn.com/abstract=2763975 or http://dx.doi.org/10.2139/ssrn.2763975

Redalyc. 2023. 'CUMBRE GLOBAL SOBRE – ACCESO ABIERTO DIAMANTE'. 23 October 2023. https://globaldiamantoa.org/.

Rooryck, Johan. 2023. 'Principles of Diamond Open Access Publishing: a draft proposal.' the diamond papers. Retrieved October 17, 2024 from https://doi.org/10.58079/1270y

Science Europe. 2022. 'Action Plan for Diamond Open Access'. Science Europe. 3 February 2022. https://www.scienceeurope.org/our-resources/action-plan-for-diamond-open-access/.

Simondon, Gilbert. 1958. *Du Mode d'existence des objets techniques*. Paris, Aubier (Ligugé, impr. d'Aubin).

Tay, Aaron. 2021. 'Why Open Access Definitions Are Confusing'. Blog. Aaron Tay's Musings about Librarianship. 6 April 2021. https://musingsaboutlibrarianship.blogspot.com/2021/04/why-open-access-definitions-are.html.

Universities UK. 2015. Monitoring the transition to open access: A report to the Universities UK Open Access Co-ordination Group. London, England. Retrieved from https://www.universitiesuk.ac.uk/sites/default/files/uploads/Reports/monitoring-transition-to-open-access-2015.pdf