

The postdigital challenge of redefining academic publishing from the margins

Abstract

This paper explores relationships between knowledge production and academic publication and shows that the current political economy of mainstream academic publishing has resulted from a complex interplay between large academic publishers, academics, and hacker-activists. The process of publishing is a form of ‘social production’ that takes place across the economy, politics and culture, all of which are in turn accommodating both old and new technology in our postdigital age. Technologies such as software cannot be separated from human labour, academic centres cannot be looked at in isolation from their margins, and the necessity of transdisciplinary approaches does not imply the disappearance of traditional disciplines. In the postdigital age, the concept of the margins has not disappeared, but it has become somewhat marginal in its own right. We need to develop a new language of describing what we mean by ‘marginal voices’ in the social relations between knowledge production and academic publication. Universities require new strategies for cohabitation of, and collaboration between, various socio-technological actors, and new postdigital politics and practice of knowledge production and academic publishing.

Keywords: academic publishing, open access, shadow libraries, hackers, activists, margins

Introduction

Knowledge production and dissemination have always been sites of struggle. According to McKenzie Wark, a possible way of describing these struggles is through the dichotomy between high theory and low theory.

High theory I think of as the scholarly tradition of continental philosophy, as shaped by institutions of higher learning and scholarly conventions of agenda formation, of vetting and authorizing statements, and so on. To be a recognized authority of high theory is to be a professor who studied with distinguished professors, who publishes or teaches in distinguished places, and so on. It is a discourse-network based on peer review and competition within hierarchies for glittering prizes.

Low theory is more about how subaltern or subordinate groups form a conceptual language to understand their situation, and to either escape it or struggle within it. One of the great historical examples of low theory is Marxism, but there are many other examples. (Wark in Jandrić 2017: 107; see also Wark 2012: 12)

During the largest part of the 20th century, centres of academic publishing could easily be defined as traditional outlets for publishing high theory, and margins of academic publishing could easily be defined as traditional outlets for publishing low theory. However, digital technologies have enabled everyone to produce and distribute digital books and articles. In this way, technologies have significantly disturbed the existing power balance between the centres and margins of academic publishing.

High theory and low theory interact in complex ways. “Low theory borrows from high theory; high theory sometimes recuperates and canonizes low theory” (Wark in Jandrić 2017: 107) – and the same can be said for organisational models behind the two theories. These days, education institutions and academic publishers have become increasingly managerialised (see Peters et al. 2016; Peters and Jandrić. 2018), yet the changing power

balance between producers, publishers, and users of knowledge has provoked radically different types of resistance. The struggle over ownership of academic knowledge predominantly takes place at the margins: non-institutional (digital) settings shaped by the hacker ethics of free sharing and do-it-yourself principles. The struggle over ownership of (higher) education predominantly takes place at the centres: academic institutions, and institutional settings such as conferences, publications, and policy meetings, with an occasional strike to boot.

However, “we are increasingly no longer in a world where digital technology and media is separate, virtual, ‘other’ to a ‘natural’ human and social life” (Jandrić et al. 2018). In the postdigital, and indeed postwelfare capitalist world (Hall 2016), boundaries between academics and hacker-activists are increasingly blurred¹ – for instance, Alexandra Elbakyan founded Sci-Hub as a graduate student in Kazakhstan, and Aaron Schwartz was arrested for downloading JSTOR content while he was a research fellow at Harvard University. Yet, oppositional strategies remain firmly in place – academics still write articles and (occasionally) strike, while hacker-activists still engage in direct (online) action. In this paper we describe the changing power balance between traditional centres and margins of academic publishing and explore postdigital reconfigurations of contemporary academic publishing through a complex interplay between large academic publishers, academics, and hacker-activists.

Postdigital transformations of academic publishing

Working in higher education, it can sometimes appear as if there are many isolated issues that make their way into teaching committee meetings, strategies and research priorities. Within the broader neoliberal logic that organises both the institutions of publishing and higher education, a separation and commodification of knowledge serves to further a range of instrumental agendas, in a wider global economy. This is a pattern that can be noticed in universities via a chasm that exists between the activities of teaching, and the academic publication of research. Yet in practice, these undertakings within universities are mutually intertwined. According to Säljö,

activities of learning, as they have been practised within institutionalized schooling, are coming under increasing pressure from the developments of digital technologies and the capacities to store, access and manipulate information that such resources offer. Thus, the technologies do not merely support learning; they transform how we learn and how we come to interpret learning. (Säljö 2010: 53)

In a lecturer’s busy life, there is little time to reflect on the commodification of knowledge that takes place in either universities, or publishing institutions. New academics are in desperate need of publications. Pressure to publish each new article is followed by a sense of relief once it is ‘out there’, with the hope that it will also be cited, to boost personal metrics. Thus, “many academics have practically surrendered traditional academic values in favour of commitment to the discipline and instrumentalism of the journal system” (Alvesson and Spicer 2016: 34). A ‘publish or perish’ mantra, where academics churn out books and articles by the dozen, has recently been redirected towards producing fewer articles, but these must be published in top quality journals (Graycar 2018). Yet top journals often “pride themselves on rejecting the overwhelming proportion of articles they receive” and “rejection comes many months after submission” (Graycar 2018). Feedback may be constructive, but it can also contain “cruel and disparaging comments from unscrupulous rivals” (Graycar 2018). Graycar

¹ To an extent, academics and hackers have been interconnected throughout the history of computer development.

argues that this is a publication game of “trivial pursuits”, where “method triumphs over content” and application in the real world has barely been considered (Graycar 2018). It is therefore worth reflecting on what cross-disciplinary “engagements with impact from research really means” (Hayes and Wilson 2018) and indeed on what activities actually raise an academic’s voice.

This surfaces questions that go well beyond citations alone, to consider what value is placed by higher education institutions on different aspects of academic labour (Hayes 2018). Actual readership of what gets published and cooperation across disciplines, as well as individual activity, all need to be revisited. Indeed how impact is defined, in relation to wider accessibility to academic publications, causes us to question whose opinion really counts, and when? If an academic article takes months, even years to publish, then what becomes lost in terms of relevant arguments that might have already been shared earlier? Crucially we would add that impact can no longer be confined. The ‘ivory tower’ is not the only option for projecting an academic voice. Digital communications have enabled opportunities for radical and disruptive moves to challenge traditional publishing models and commodification of knowledge and to act quickly, with far reaching consequences and impact. As the digital has met with the analog, a meshing of what were formerly considered the technological and non-technological has now moved us into the realm of the postdigital (Jandrić et al. 2018a). In this realm, digitization can be viewed as something that has already happened and therefore might be further reconfigured (Cramer 2013, 2015). Whilst we suggest that the postdigital age is still in its infancy, we also know that we cannot turn back from such a convergence of traditional and digital media. It throws up new challenges and possibilities for the economy, politics, culture and indeed for research and (higher) education. It also opens new avenues for redefining what we mean by education and publication from the margins.

In our postdigital age, we are no longer reliant on narrow institutional settings alone to determine whose (academic) voice is marginal. In recent decades policy makers have chosen where to place ‘value’ in the discourse about the role of technology in higher education (Hayes and Jandrić 2014, Hayes and Bartholomew 2015). However, Tim Fawns (2018) convincingly argues that “Ideas like “digital education” are useful insofar as they encourage people to look closer at what is happening, but become problematic when used to close down ideas or attribute instrumental or essential properties to technology”. The postdigital reality now places this debate and many others into all of our hands, as it accommodates new discoveries yet also retains the old ones. Rather than wipe out what has gone before, this dialectic offers opportunities to learn from existing knowledge and add to it.

The prefix ‘post’ should not be understood here in the same sense as postmodernism and post-histoire, but rather in the sense of post-punk (a continuation of punk culture in ways which are somehow still punk, yet also beyond punk); post-communism (as the ongoing social-political reality in former Eastern Bloc countries); post-feminism (as a critically revised continuation of feminism, with blurry boundaries with ‘traditional’, unprefixated feminism); postcolonialism... (Cramer 2015: 14)

Building on work of Donna Haraway (2016: 32), Sinclair and Hayes explore the concept of the postdigital using the metaphor of compost. For Sinclair and Hayes, “digital ‘with post’ (compost) should be fertile ground”, and “the metaphorical value of com-post (in the sense of ‘with post’) allows us to conceptualise a way out of our educational conundrums by recognising the interconnections of everything in ways that can be used as required and discarded when not” (Sinclair and Hayes 2018). Peters and Besley add an important political dimension to this conceptual inquiry.

The postdigital does not describe a situation, condition or event after the digital. It is not a chronological term but rather a critical attitude (or philosophy) that inquires into the digital world, examining and critiquing its constitution, its theoretical orientation and its consequences. In particular, it addresses the conditions of digitality and the ideology of digitalism, the idea that everything can be understood without loss of meaning in digital terms. (Peters and Besley 2018)

In order to grapple with postdigital reality, continue Peters and Besley, we need a critical philosophy of the postdigital which “must be able to understand the processes of quantum computing, complexity science, and deep learning as they constitute the emerging technoscience global system and its place within a capitalist system that itself is transformed by these developments” (Peters and Besley 2018).

We suggest that the postdigital raises significant challenges for redefining academic publishing from the margins. The logics of globalization, neoliberalization, and McDonaldization have encouraged a narrow individualism. Marginal voices have contested these developments over time. However, whilst the concept of the margins as a radical space of dissent to the mainstream has not yet disappeared, we argue that due to digital opportunities for publication it has become somewhat marginal in its own right. This could have far reaching consequences, because it removes a valuable tension in terms of counter argument to the way in which society and education are organised. If dissenting voices can no longer be found, we are vulnerable to diluted forms of participation. We suggest therefore that a new postdigital dialogue (see Jandrić et al. 2018b) is needed to help to surface once more the contestable nature of academic publication.

The contestable nature of academic publication

Libraries have been around since the invention of writing. Royal palaces had collections of papyrus scrolls, and monasteries had specialised in manufacturing handwritten books. Printing machinery has made book production much cheaper, and book collections have become increasingly common in well off homes. At the dawn of the Enlightenment, philanthropes started opening the first public libraries². In 1653 Manchester, Humphrey Chetham established the oldest free public library in the UK, which was closely followed by a few others. In the 19th century, Enlightenment ideas became widespread across society, and the Public Libraries Act 1850 enabled the advent of the modern public library: a state-funded institution, providing universal free access to books and journals for all citizens (Battles 2014; Kelly 1973). This was a historical leap which took information and knowledge from sites of their production (universities, institutes, monasteries, and other formal and informal institutions) to the general public. However, production of books and journals was still in the hands of the few. Fast forward to the mid-20th century, and cheap printing coupled with modern intellectual property laws now produced our current political economy of publishing. Obviously, a lot of material in public libraries is not academic, and there are many differences between “the consumer, college textbook, and scholarly publishing components” (Greco, Rodríguez, and Wharton 2007). Here, we focus to the specific case of academic publishing, where academics produce (write, edit, review) books and articles within their (typically publicly funded) workplaces, and academic publishers make profit on their sales and distribution (see Peters et al. 2016).

Digital technologies have challenged the power balance between producers and users of knowledge: now everyone can produce and distribute digital books and articles. Certainly, this development is not all sunshine and roses. Digital technology is not available to everyone

² For the sake of space, this historical overview is restricted to the UK; similar developments can be found in other European countries such as France.

globally and is restricted by structural positioning such as race and class in developed economies. Algorithmic filter bubbles, and phenomena such as ‘post-truth’ and ‘fake news’, create large gaps between true (scientific) knowledge and public opinion, and these gaps can sometimes be counterbalanced only in reference to non-digital sources of information (Peters et al. 2018). This brings about new postdigital universe of affordances and constraints, which is in these days widely debated in academic and non-academic literature (see Peters et al. 2016 for an overview of these debates). However, Björk shows that

While the business models used in most segments of the media industry have been profoundly changed by the Internet, surprisingly little has changed in the publishing of scholarly peer reviewed journals. Electronic delivery has become the norm, but the same publishers as before are still dominating the market, selling content to subscribers. (Björk 2017: 101)

Today, five major for-profit publishers (Elsevier, Springer, Wiley-Blackwell, Taylor & Francis and Sage) own over half of world's academic material, and offer access for constantly rising prices (see Jandrić 2017: 256). Global neoliberal academia, in cooperation with global for-profit publishing companies, has created a model of value extraction in which the fruits of predominantly publicly funded labour (research) and an increasing percentage of unpaid labour (editing, reviewing) is packaged in expensive books and journals and then sold back to their producers.

This oligopoly of for-profit academic publishers, and their model of value extraction from publicly funded institutions into private hands, has become a wide social concern. Academics have started to develop various Open Access (OA) alternatives to standard publishing models, and a lot of resistance now takes place in digital settings that have been shaped by the hacker ethics of free sharing. In this context, power relationships between those professionally involved in knowledge production and dissemination (academics, publishers) and the general public have reshifted. In order to explore the question ‘*what makes a voice marginal in the postdigital reality?*’ we will now examine two examples of resistance to dominating models of academic publishing: the OA movement, which is largely supported by the ‘professional’ academics and publishers, and the activist models of resistance, which largely consists of illegal collection and sharing of copyrighted material in so-called shadow libraries, typically supported by people who are outside of academia.

Open Access

In traditional publishing models, authors publish their works for free, or sometimes for a small fee, and readers pay for access to published works – this is the so-called reader-pays model. The price of published works includes the costs of production and the publisher’s profit margin. In the OA movement, this reader-pays model is replaced by various author-pays models. Here, authors or their institutions cover publishing costs and publications are free to access. Models of OA publishing are commonly classified by colours, where Gold OA implies full “open access publishing”; Green OA “can archive pre-print and post-print” Blue OA “can archive post-print (ie final draft post-refereeing)”; Yellow OA “can archive pre-print (ie pre-refereeing)”; and in White OA, archiving is not formally supported (Hubbard 2018). Some OA journals, such as the *Open Review of Educational Research* and *Research in Educational Technology* are supported by professional bodies which cover the cost of publication for their members. While this model does alleviate financial burden from some authors, it still supports the divide between publishing haves and publishing have-nots. In the current political economy of knowledge work, challenges related to OA can be summarized as follows:

The first concerns the sustainability of publishing by asking to what extent can members of scholarly societies continue to subsidise publications; the second addresses economic concerns regarding why members of not-for-profit scholarly societies, should support profit making gold journals, while the third – which may well be the elephant in the room – raises serious concerns about the scholarship itself by asking about the quality of the publication and how (and by whom) this is determined. (Peters et al. 2016: 1409)

Academic publishing is an expensive affair. For instance, a highly influential OA journal *TripleC: Communication, Capitalism & Critique* reports the following financial breakdown:

Operating a journal within a capitalist society that is based on money and wage-labour creates actual monetary costs for a) the domain name, b) web space hosting and c) paid labour for copy-editing, layout, and online publishing of the article as pdf and html. (c) accounts by far for the largest cost share. On average, these costs amount to £120 per standard 8,000 word article that tripleC publishes. These are pure costs, and the journal makes no profit. (tripleC 2018)

Without receiving any money from its readers, “during its first 14 years, tripleC survived based on private and institutional support and funding” (tripleC 2018). However, many OA journals do not have the luxury of external support. Also, tripleC is a non-profit organisation, and some for-profit OA journals are adding hefty margins to costs of production. For instance, Taylor and Francis and Routledge are charging €2,275 for in their Open Select programme (Taylor and Francis 2018) and Springer charges €2200 in their Open Choice programme (Springer 2018) (both prices exclude VAT and local taxes; various discount options are available). The aforementioned publishers might be expensive, but their reputation ensures that articles published within author-pays model are subject to roughly the same reviewing and editing processes as articles published within reader-pays model. On the other side of the quality spectrum, the author-pays OA model has also given rise to a whole ecology of so-called predatory publishers. Jeffrey Beall, librarian and founder of the a list of predatory open-access publishers ‘Beall’s list’ maintained by University of Colorado (see Beall 2012 and 2013), was amongst the first academics who noticed the extent of this problem. Targeting vulnerable academics in desperate need of publications, predatory journals set up impressive yet fake lists of editors and reviewers, nice looking websites, and sometimes even manage to get themselves listed in academic databases. Then, they charge for publishing articles with little or no review or editing. These days, publishing in journals on Beall’s list of predatory publishers will not do much good for one’s career at the majority of European and US universities, but predatory publishing still thrives in the rest of the world (ibid).

Elite publishers such as Springer and Taylor and Francis, and predatory publishers, are two opposing extremes in OA publishing universe – the majority of OA journals are doing fair and honest work. Nevertheless, the author-pays funding model presents a hard challenge to all OA journals. If a journal needs money, and receives a bunch of paper submissions which are just slightly below expected standard of scholarship, what should its editors do? Should they reject the articles and jeopardize journal’s existence, or should they publish the papers and hope to receive better submissions in the future? The consequences of this dilemma, together with the real threat of predatory publishing, make it very hard to enlist OA journals into mainstream academic databases such as Web of Science and Current Contents, and make it even harder to get them on prestigious journal lists. Judging academic articles based on

prestige of journals where they are published is a problem in its own right. According to Willmott, “Where list fetishism gets a grip, scholarship is homogenized. (...) Academic discussions increasingly turn around questions of how to shape research activity and guide publications strategy to fit the requirements of a small number of elite journals.” (Willmott 2011: 438, see also Mingers and Willmott 2013). Nevertheless, in current publish or perish environment, where (especially early- and mid-career) academics are strongly pushed towards publishing in journals listed in these databases, OA journals are faced with an important problem of attracting quality authors. In sum, even the most legitimate OA academic journals face the challenge of balancing their finances and quality of published material. According to Beall, “one result of this situation has been the publication of millions of useless articles that create an awful lot of academic noise” (Beall 2012: 82).

In the future, this challenge could be at least partially resolved by wider acceptance of OA in academic community, and this acceptance needs to be supported by formal political bodies (such as political parties and trade unions) which have the power to define OA publishing as a legitimate form of public investment. These days, we are seeing a surge of attempts in this direction. In the UK, Research England has an Open Access policy since 2013 which strongly pushes all research funded by the UK’s Research Councils towards OA (UK Research and Innovation 2018). Similarly, Plan S has been enacted by eleven research funders across Europe, to prevent commodification of knowledge by wealthy publishing companies. This radical open-access plan to ensure scientific works are free to read as soon as they are published, spearheaded by Robert-Jan Smits, the European Commission’s special envoy on open access, could “change the face of science publishing in two years!” (Else 2018). The powerful declaration from 11 agencies who together spend €7.6 billion (US\$8.8 billion) in research grants annually, means that from 2020, funded scientists must publish under a liberal publishing license to allow anyone to download, translate or reuse the work. The preamble document that accompanies the Plan S pledge states: “No science should be locked behind paywalls!” Given that Plan S bars researchers from publishing in 85% of journals, including such influential titles as *Nature* and *Science*, commercial publishers are understandably expressing serious concerns (Else 2018). The subsequent launch of ‘cOAlition S’ (built around the main principle of Plan S) aims to make full and immediate Open Access to research publications a reality. By 2020, scientific publications that result from research funded by public grants provided by participating national and European research councils and funding bodies, must be published in compliant Open Access Journals, or on compliant Open Access Platforms.

Determining the total number of OA academic articles is notoriously difficult for many reasons: subject areas are covered in specialised databases, publishing cultures between subject areas hugely vary, etc. Furthermore, while searching academic databases, it is very hard to distinguish between OA models with various levels of openness (the Green, Blue, Yellow, White & Gold models), so articles published with full OA (the Gold Model of OA) often get confused with preprints self-archived by the authors on personal websites or institutional depositories (the Green Model of OA). It is therefore hardly a surprise that official statistics and studies come up with radically different results, and these differences are further exacerbated by researchers’ attempts to provide a ‘neutral’ picture and for-profit companies’ orientation towards showing their work in the best possible light. A recent study published in *PeerJ* entitled ‘The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles’ (Piwowar 2018) examines recently published articles in various databases and estimates “that at least 28% of the scholarly literature is OA (19M in total) and that this proportion is growing”. Authors openly admit that their study has “several important limitations”; most notably, it does not distinguish between various models of OA and it focuses only to recently published articles. Therefore, the all-time percentage of OA

articles is probably much smaller. Clarivate Analytics, which is the company behind the major academic database Web of Science, uses a slightly different methodology and reports that “18% of Web of Science Core Collection data is available as OA” (Clarivate Analytics 2018). These studies disagree about overall numbers of OA articles, but they unanimously agree that their percentage is growing. Furthermore, both studies agree that OA articles receive higher numbers of citations than paywalled articles. However, this statistic can also be attributed to many other factors, and the quality of publications is still “the elephant in the room” (Peters et al. 2016: 1409) – it is quite possible that many OA articles may belong to what (Beall 2012: 82) calls “academic noise” or “millions of useless articles”.

The OA movement within academia is growing, but the rate of this growth is difficult to determine and its outcomes, including but not limited to quality of published material, are mostly unclear. Furthermore, the tension between money and quality built into the author-pays publishing model cannot be resolved by the sheer increase in numbers. It remains to be seen whether the OA author-pays model will manage to evolve towards a viable resolution of this tension, or it will live up to its critics’ expectations and “promote access at the expense of quality: a shortcoming that tacitly condones the publication of unworthy scientific research” (Beall 2013: 179).

Shadow libraries

Outside academia, hackers and activists have taken a radically different route of resistance towards the reader-pays model of academic publishing – using their computer skills, they have simply broken the law and made copyrighted material available to everyone. One of the first online repositories of academic material, Ubu, was founded in 1996. Textz.com distributed texts in critical theory between 2001 and 2004, when it was replaced by Aaaaarg and Monoskop. In the late 2000s, Gigapedia “started a different trajectory of providing access to comprehensive repositories. Gigapedia was a game changer, because it provided access to thousands and thousands of scholarly titles and made access to that large corpus no longer limited to those working or studying in the rich institutions of the Global North” (Jandrić 2017: 259). Gigapedia was shut down in 2012 (under the name of Library.nu), but its repository was merged with Library Genesis, which is today the largest online book library in the world containing 2.7 million books and 58 million science magazine files (Library Genesis 2018). Library Genesis’ sister project, Science Hub, provides access to academic journals, and currently stores over 70 million academic articles available for direct download (Science Hub 2018).

These activists are well aware that their resistance towards the reader-pays model of academic publishing is illegal. In response, they offer two main legitimating discourses for their actions.

Legitimizing discourses usually claim that shadow libraries fall into the category of non-commercial fair use. These arguments are definitely valid, yet they do not build a particularly strong ground for defending knowledge commons. Once they arrive under attack, therefore, shadow libraries are typically shut down. In our call for collective disobedience, therefore, we want to make a larger claim. (...) if we want to prevent our knowledge commons from being taken away over and over again, we need to publicly and collectively stand behind our disobedient behaviour. We should not fall into the trap of the debate about legality or illegality of our practices. Instead, we should acknowledge that our practices, which have been deemed illegal, are politically legitimate in the face of uneven opportunities between the Global North and the Global South, in the face of commercialization of education and student debt in the

Global North ... This is the meaning of civil disobedience – to take responsibility for breaking unjust laws. (in Jandrić 2017: 259-260)

These legitimating discourses carry a lot of truth. Shadow libraries have enabled the academic work of a whole generation of scholars from non-privileged and non-institutional backgrounds, including at times, the authors of this paper. As Michael Peters and Peter Roberts show in *The virtues of openness: Education, science and scholarship in the digital age* (Peters and Roberts 2012), shadow libraries have also enabled radically new ways of doing research, including but not limited to, collective intelligence. Having said that, shadow libraries have not managed to replace the reader-pays model, because universities and research institutes need to adhere to the law. Even more importantly for this discussion, shadow libraries offer even less hope than OA models for creating viable solutions to the crucial question of balance between economic sustainability and quality. Producing good academic research costs money (although it is much cheaper than big publishers would like us to believe), and if everyone downloaded their academic material from shadow libraries, the whole system of academic production as we know it would eventually collapse.

Who is marginal in the postdigital reality?

OA initiatives from within academia are on the rise, but they are restricted by the tension between economic sustainability and quality. Created at the hacker / activist margins, shadow libraries have managed to achieve a much larger impact in numbers of available books and articles, but their illegal activities do not appeal to formal academia, and further exacerbate the tension between economic sustainability and quality. In consequence, academic publishing is still dominated by standard reader-pays publishing models. Under the pressure of the OA movement and shadow libraries, however, many reader-pays journals have started to evolve towards various hybrids between author-pays and reader-pays models. In these hybrid models, authors can choose to publish their articles either in the reader-pays model or in (some form of) author-pays model. More radical OA advocates, such as David Sweeney, who is the chair of Research England, claims that “Hybrid journals were always viewed as a step towards full open access. They haven’t succeeded as a transitional measure” (in Else 2018). Yet, the emergence of various hybrid journals (which now account for a large part of total OA publication output) clearly indicates that traditional publishers are treating OA seriously. And the reader-pays models also evolve in various other directions. While many OA journals still bring substantial (and many would say unfair) profit to their owners, it is fair to say that the interplay between mainstream transformations towards hybrid models, and activist shadow libraries working on the margins, have produced deep transformatory effects on the nature of academic publishing.

The process of publishing is a form of ‘social production’ that takes place in the economy, politics and culture. As Fuchs reminds us, “the economy and work are not limited to the production of physical goods” (Fuchs 2016: 215) and so, whether we realise it or not, the academic publishing process connects each of us intimately with politics, the market and digital technology. Yet although “culture and politics are on the one hand part of the economy: humans produce and communicate meanings and collective decisions in social processes” (Fuchs 2016: 215). Therefore it is important to emphasise that culture and politics (including how these play out around digital technology) are not identical with the economy. As Fuchs points out, “humans produce use-values, collective decisions and meanings. They are simultaneously part and no-part of the economy. Once produced, rules and meanings take effect all over society” (Fuchs 2016: 215). This can clearly be noticed in the interplay between efforts done at academic centres and the activist margins towards current transformations of academic publishing.

OA and other hybrid models of academic publishing are driven from within the system, by academics and academic publishers. In the shadow world of activism, however, things are much more complex. The founder of Science Hub Alexandra Elbakyan is currently in exile and nobody knows who stands behind Library Genesis. Yet, there are a wide spectrum of activists who do not directly engage in illegal activities, and can therefore be much more open with their work. In 2016 Marcell Mars and Tomislav Medak started The Public Library project (Memory of the World, 2018), which consists of two main groups of activities. They build tools for working with electronic libraries, digitization of paper books, and making books available online; and they actively engage in public outreach.

Mars' and Medak's contribution to the Public Library is software – they wrote plugin 'Let's share books' for the e-book management software Calibre, which sets up server infrastructure for document sharing. This technology has enabled millions of people to share books online, and has effectively improved the usability of shadow libraries. According to Nathan Esmenger,

software is perhaps the ultimate heterogeneous technology. It exists simultaneously as an idea, language, technology, and practice. Although intimately associated with the computer, it also clearly transcends it. For the most part software is invisible, ethereal, and ephemeral — and yet it is also obviously constructed. (...) Software is where the technology of computing meets social relationships, organizational politics, and personal agendas. All technologies are to a certain extent social constructions, but in the case of software, the social dimensions of technology are particularly apparent. (Esmenger 2010: 8)

'Let's share books' is a technical construction which has not been produced within academia and which was not produced by academics. Yet it is also a social construction, which strongly impacts on the world of academia, thus creating a blurring of traditional borders between its 'centre' and its margins. Fuchs reminds us that we can distinguish between “action that aims at instrumentalising humans and society for fostering the domination of some over others and co-operative action that is based on the logic that actions benefit all” (Fuchs 2016: 216). Communication is embedded into structures of both domination and emancipation and so there are both instrumental and co-operative forms of communication in digital society. Fuchs argues that digital media, however: “are not just technologies of domination, but to a certain degree are also part of struggles for a society, in which humans overcome alienation and collectively control their conditions of life” (Fuchs 2016: 218).

Some of the strongest outreach venues for The Public Library project are art galleries – the project has been exhibited in prestigious places including Reina Sofía in Madrid, Württembergischer Kunstverein in Stuttgart, 98 Weeks in Beirut, Museum of Contemporary Art Metelkova in Ljubljana, and Calvert 22 in London (Jandrić 2017: 243). Gathered around the non-governmental organisation MaMa in Zagreb, Croatia, Mars and Medak have worked for many years as activists, yet in their early forties they joined academia. In our postdigital reality, academic publishing belongs to the world of computer science, which, in the words of Mars and Medak, “remains a weird hybrid where knowledge is produced in both academic and non-academic settings, through academic curricula – but also through fairs, informal gatherings, homebrew computer clubs, hacker communities and the like” (in Jandrić 2017: 266). Discussed in various prestigious institutions, academic publishing also belongs to the world of arts. Speed and accuracy of publishing is often debated in terms of environmental and health consequences (if someone finds a cure for cancer, should it really be hidden behind a paywall?). This shows that development of academic publishing is an intrinsically transdisciplinary endeavour. Postdigital transdisciplinarity, however, does not abandon

traditional disciplines, but reconfigures them towards resolving over reaching problems. In the words of Steve Fuller,

At a deeper epistemic level, we might say that transdisciplinarity exists in symbiosis with disciplinarity because they ‘instrumentalise’ reciprocally. Transdisciplinarity instrumentalises the disciplines to solve a real world problem, which arguably arises because the system of disciplines itself instrumentalises reality in the Kuhnian sense of imposing templates, or ‘paradigms’, to make reality easier to process. This effectively blinds the disciplinarians to certain ‘real world’ issues that in turn create the need for transdisciplinarity. (in Fuller and Jandrić, 2018)

Mars and Medak’s personal biographies show a lot of overlap with the structure of The Public Library project. Theorizing their project, they invoke the collective figures of amateur librarian and custodian. “These figures highlight the labor of communizing knowledge and maintaining infrastructures of access, refuse to leave the commons to the authority of professions, and create openings where technologies and infrastructures can be re-claimed for radically collective and redistributive endeavours.” (in Jandrić 2017: 262) The figures are inspired by the emergence of public libraries during the French revolution in the 19th century by seizing book collections from the Church and the aristocracy, and “the revolutionary potential of emerging digital networks turned out to be a good candidate for replacement by a story dating back two centuries earlier“ (ibid: 264). With their software, now everyone who has a book collection on their computer’s hard drive is a networked amateur librarian and custodian. As one of their slogans says, “When everyone is librarian, library is everywhere” (Memory of the World 2018). In this way, Mars and Medak’s work has transformed the traditional relationships between the centre and the margins; in their case, between professional librarians and amateur librarians.

In our view, amateur librarians are complementary to professional librarians, and there is so much to learn and share between each other. Amateur librarians care about books which are not (yet) digitally curated with curiosity, passion and love; they dare to disobey in pursuit for the emancipatory vision of the world which is now under threat. If we, amateur librarians, ever succeed in our pursuits – that should secure the existing jobs of professional librarians and open up many new and exciting positions. When knowledge is easily accessed, (re)produced and shared, there will be so much to follow up upon. (in Jandrić 2017: 267)

Borders between professional librarians and amateur librarians have not vanished, but the relationships between the two have become fuzzy, blurred, and uncertain.

Redefining academic publishing from the margins

In the postdigital age, high theory and low theory (Wark 2012; Jandrić 2017) are more intertwined than ever - and various social actors, from academics through activists and hackers through millions of ‘amateur librarians’ actively engage in the political economy of academic publishing. Perhaps for the first time in history, people outside of academia and people residing on its fringes have managed to significantly influence the economy, politics, and practice of knowledge work. Hackers and activists develop cultural frames of reference, intertwined with political, economical, and social agendas; then they create technologies appropriate for the purpose, which are freely distributed and used throughout the Internet, and which are discussed and promoted in various contexts from grassroot hacker meetings, academic conferences, and art galleries. Traditional academic power relationships are still in

place; activists and their technologies officially have no say over the fate of academic publishing. Nevertheless, work done on yesterday's margins of academic publishing (by hackers and activists) has strongly pushed yesterday's centres of academic publishing (e.g. universities, research institutes, and academic publishers) towards developing a wide range of initiatives including development of various OA models. At this moment, neither activist approaches nor academic responses have managed to produce a sustainable solution for relieving the tensions between freedom of access, quality of academic work, and economic sustainability. However, these responses cannot be looked at in isolation: the complex interplay between academics, academic publishers, hacker-activists, producers and users of academic content, actively co-creates contemporary landscape of academic publishing.

This is the postdigital reality: "hard to define; messy; unpredictable; digital and analog; technological and non-technological; biological and informational. The postdigital is both a rupture in our existing theories and their continuation" (Jandrić et al. 2018: 895). We need to understand relationships between yesterday's centres and margins, because they have set up the scene for our current situation, but we also need to understand that these relationships have significantly reconfigured. Research and development of academic publishing is a transdisciplinary endeavour, yet it does not abandon traditional disciplines. Traditional binary between activists and academics becomes increasingly blurred, and we need to start developing new forms of engagement in knowledge work. Disciplinary experts, such as academics and librarians, need to actively engage in reshaping their jobs and redefining their wider social roles. Activists and hackers need to engage with consequences of their actions within political economy at large. Traditional relationships between centres and margins of academic publishing have substantially reshifted. At a deeper level, we need to question basic concepts such as 'centre' or 'mainstream' and 'periphery' or 'margin'. In our postdigital reality, they have morphed into formations that we do not yet understand, and they have created (power) relationships which are still unsettled. The concepts of 'centres' and 'margins' have not disappeared, but they have become somewhat marginal in their own right.

In a new era of postdigital capitalist development, we need to develop a new language of describing social relations, and new ways of collaboration between yesterday's centres and margins. Consequently, how academic publication is currently viewed institutionally and non-institutionally might now be broadly contested via 'postdigital dialogue', which is a space of learning, struggle, and hope where 'old' and 'new' media are 'cohabiting artefacts' (Jandrić et al. 2018b). Academics need to manage their own voices and routes for publication in a postdigital landscape. As the margins reconfigure, universities also need to review their institutional policies and practices to remain relevant. Academic efforts such as this article should be complemented by political action at the level of government or social policy. Our postdigital age is one of cohabitation, blurring borders between social actors and scientific disciplines, mutual dependence, shifting relationships between traditional centres and margins, and inevitable compromise – and this calls for deep reconfiguration of politics and practice of knowledge production and academic publishing as we know it.

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