Chapter 14

Contesting the Neoliberal Discourse of the World Class University: ‘Digital Socialism’, Openness and Academic Publishing

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Abstract The principal aim of this paper is to contest the neoliberal discourse of the World Class University (WCU). The first section provides an understanding of the concept of the WCU within the context of a global competitive model of the knowledge economy and contrasts it with the social-democratic model based on open science and education that also provides links between new modes of openness, academic publishing and the world journal architecture. The paper makes the case for ‘knowledge socialism’ that accurately depicts the greater communitarian moment of the sharing and participative academic economy based on peer-to-peer production, social innovation and collective intelligence. It instantiates the notion of knowledge as a global public good. Profound changes in the nature of technology has enabled a kind of ‘digital socialism’ which is clearly evident in the shift in political economy of academic publishing based Open Access, cOAlition S, and ‘Plan S’ (mandated in 2020) established by national research funding organisations in Europe with the support of the European Commission and the European Research Council (ERC). The social democratic alternative to neoliberalism and the WCU is a form of the sharing academic economy known as ‘knowledge socialism’. Universities need to share knowledge in the search for effective responses to pressing world problems of fragile global ecologies and the growing significance of technological unemployment. This is a model that proceeds from a very different set of economic and moral assumptions than the neoliberal knowledge economy and the WCU.

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Scholars have been discussing alternatives to the reputational race. Hazelkorn and Gibson (2017) mention the ‘flagship’ university developed ‘in explicit opposition to the self-serving WCU’ (p. 8), the ‘civic’ university, and the ‘world-class system’ (WCS). Our suggestion in line with the critique of neoliberalism and a sharing academic economy is ‘knowledge socialism’. Universities need to share knowledge in the search for effective responses to pressing world problems of fragile global ecologies and the growing significance of technological unemployment. This is a model that proceeds from a very different set of economic and moral assumptions than the neoliberal knowledge economy and the WCU.

One can of course see how each kind of society corresponds to a particular kind of machine - with simple mechanical machines corresponding to sovereign societies, thermodynamic machines to disciplinary societies, cybernetic machines and computers to control societies. But the machines don’t explain anything, you have to analyze the collective arrangements of which the machines are just one component. (Deleuze 1995, p. 175).

Introduction

Since the early 2000s, the growing impact of global rankings and their use strategically to restructure higher education systems to increase global competitiveness has led to a ‘reputation race’ and the emergence of the global discourse of ‘The World Class University’ (WCU), fuelled by neoliberal conceptions of the knowledge economy and led by five main ranking systems that shuffle the pack to reveal the latest annual rankings among the predominantly American and British institutions that comprise the ‘winners’ overwhelmingly. As universities have expanded and been re-purposed as global market institutions, their traditional liberal missions based on the pursuit of truth and disinterested knowledge for its own sake and the fostering of democratic citizenship based on critical thinking and academic freedom have given away to neoliberal, managerialist, competitive, utilitarian, market-led model creating a form of higher education ‘unsustainable for all but a small group of marquee universities’ (Mittelman 2017). One major policy strand of this discourse anchored the concept of the WCU in a global competitive model of the knowledge economy promoted by The World Bank (Salmi 2002, 2009). The neoliberal model concentrates excellence and resources in small number of elite universities, creating a greater hierarchical reputational differentiation, often separating teaching and research universities to link resource allocation to institutional profiling or other classification tools informed by rankings; the social-democratic model, by contrast, attempts to balance excellence and equity with an emphasis on horizontal differentiation and a ‘good quality’ university system across country based on the traditional liberal integration of teaching and research (Hazelkorn 2015).

The discourse of WCU has had a rapid uptake in East Asian countries, with China recently refining its strategy. Under the ‘Double First Class’ policy, China is rapidly expanding the development of 42 of its universities as ‘world class’ by 2050

and 95 universities have been chosen to develop world class courses. This initiative follows the '211' and '985' projects launched in the 1990s that aimed to enhance China's global educational competitiveness (Gao 2017; Peters 2017). Scholars have suggested whatever its shortcomings, a discourse of quality has legitimated an inquiry into the characteristics of 'world class' universities, anchoring the idea in popular and political consciousness, and fuelling the scramble to identify the challenge and formula for building world-class universities by listing and analysing its characteristics. The world ranking systems emerging in the mid 2000s have played a major role in legitimating the neoliberal view: they have helped engineer the global obsession with WCU and are engaged in the hugely profitable proliferation of new data sets that endlessly refine regional and discipline groupings. Yet there are many problems with global rankings, not all of which cannot be solved through technical improvements to indicators, including the continued dominance of the elite US-British institutions, the relative neglect of the arts and humanities, the lack of recognition of cultural and indigenous knowledges, the focus on research at the expense of teaching, and the crudeness of rankings and single composite scores that belie the rich complexities of university institutions. The neoliberal model focuses attention on individual institutions rather than collaborative research relations among them. Arguably, a relational focus on the emerging configurations of global collaborative research might make more strategic sense, especially if it was aimed at assisting the bottom half of universities of the 20,000 universities in the world. Such a strategy would probably also do more for issues concerning access to publicly funded research and traditional concerns of equality that motivate social democratic visions. It would also likely embrace more holistically an approach that examines cross-national flows of knowledge, links between new modes of openness, academic publishing and the world journal architecture. Peters et al. have argued that such a model is better placed to accommodate and develop approaches to two of the world's major problems that threaten to engulf us: impending world ecological disaster related to climate change and the social and economic dislocation of technological unemployment (Wals and Peters 2018; Peters et al. 2019).

We have described the model of open science and education in a number of publications over the years (eg. Peters and Besley 2008) and had occasion to talk about versions of it that approximate what we call 'knowledge socialism', the greater communitarian moment of the sharing and participative academic economy based on peer-to-peer production, social innovation and collective intelligence. In 'Knowledge Socialism and Universities: Intellectual Commons and Opportunities for "Openness" in the twenty-first Century' (Peters et al. 2012; see also), we suggested that 'Openness' is a central contested value of modern liberalism that falls under different political, epistemological and ethical descriptions and provided a brief history of openness in education based on the concept of the Open University as it first developed in the United Kingdom during the 1960s, a development we dubbed Open University 1.0. We considered the concept of openness in the light of the new 'technologies of openness' of Web 2.0 that promote interactivity and encourage participation and collaboration, and help to establish new forms of the intellectual commons, a space for knowledge sharing and collective work. We

argued that the intellectual commons is increasingly based on models of open source, open access, open courseware, open journal systems and open science. We called this model Open University 2.0. Where Open University 1.0 is based on the logic of centralized industrial media characterized by a broadcast one-to-many mode, the latter is based upon a radically decentralized, many-to-many and peer production and a mode of interactivity. We looked forward to the possibilities of a form of openness that combined the benefits of these first two forms, what we called Open University 3.0, and its possibilities for universities in the future. The investigation of the political economy of openness as it reconfigures universities in the knowledge economy of the twenty-first century is directed toward a socialized model of the knowledge economy that competes with and replaces neoliberal versions. In this paper, we want to continue to broaden this view by giving a brief account of ‘digital socialism’ considered in relation to the oligarchy of academic publishing.

Knowledge as a Global Public Good

Knowledge has been defined as a global public good exhibiting the following characteristics: 1. knowledge is non-rivalrous: the stock of knowledge is not depleted by use, and in this sense knowledge is not consumable; sharing with others, use, reuse and modification may indeed add rather than deplete value; 2. knowledge is barely excludable: it is difficult to exclude users and to force them to become buyers; it is difficult, if not impossible, to restrict distribution of goods that can be reproduced with no or little cost; 3. knowledge is not transparent: knowledge requires some experience of it before one discovers whether it is worthwhile, relevant or suited to a particular purpose. An interesting theoretical moment occurred when similar principles were applied to digital information goods insofar as they were seen to approximate pure thought or the ideational stage of knowledge. Digital information goods helped to undermine traditional economic assumptions of rivalry, excludability and transparency, as the knowledge economy was seen to be about creating intellectual capital and the way that information goods differ from traditional goods: digital goods can be copied cheaply, so there is little or no cost in adding new users. Developments in desktop and just-in-time publishing substantially lowered fixed costs. Information and knowledge goods typically have an experiential and participatory element that increasingly requires the active *co-production* of users creating new content, and digital goods can be transported, broadcast or shared at low cost, approaching free transmission across bulk communication networks. Since digital information can be copied exactly and easily shared, it is never consumed. In short, digital goods are non-rivalrous, infinitely expandable, discrete, aspatial, and recombinant (Quah 2003). The ‘information revolution’ in its successive generations pictured a deep structural transformation from the industrial to the knowledge economy which led to an acceleration of the speed at which knowledge was created and huge decreases in the costs of codification, transmission, and acquisition of knowledge

(Peters 2008). This new understanding dominated the education policy agendas everywhere.

In light of this profound digital transformation, Tapscott and Williams (2007: 1) suggested 'profound changes in the nature of technology, demographics, and the global economy are giving rise to powerful new models of production based on community, collaboration, and self-organization rather than on hierarchy and control'. It was surprising to some that, in middle of the neoliberal restructuring, new, more democratic and decentralized models of production came to the fore. Tapscott and Williams (2007) placed the emphasis on peer-to-peer collaboration and smart new web companies that invented and harnessed digital architectures for collaboration focused on the new ethos of participation and openness, with the aim of realizing real value for participants. They argued that we are entering a new phase of economic participation in the economy, 'where new forms of mass collaboration are changing how goods and services are invented, produced, marketed, and distributed on a global basis' (p. 10). The new information service corporations like Google, Facebook, YouTube, Linux, Wikipedia, Amazon.com and eBay certainly utilize and depend for business on the principles of mass global participation and collaboration. The new digital economy depended on openness, peering, sharing, and acting globally. The contradiction was that these digital opportunities were the product of the massive information utilities, a group of US corporations each approaching a trillion dollars that represented the leading edge of the information economy. Critics like Fuchs (2008) argued that 'wikinomics' was a form of exploitation of unpaid labour and also an ideology ('digitalism') leading to an increase in precarious and unpaid labour. Mass collaboration has traditionally been associated with socialist self-management. The emergence of the cooperative economy, social media and peer-based commons production transcended 'the instrumental logic of competition and instrumental reason and anticipated a society that is based on cooperation, sharing, and participation' (Fuchs 2008, p. 8). There is a well-established literature now twenty years old that argues for an anti-capitalist or social democratic potential of public goods inherent in the Internet (Atton 2004; Barbrook 1998, 1999, 2007; Benkler 2006, Lessig 2006; Söderberg 2002). Deep in the bowels of digital capitalism was a socialist sharing tendency that gave expression through new technology to the Marxist truism that knowledge and the value of knowledge is rooted in social relations.

This contradiction indicated an ironic turnaround. What started out as neoliberal managerialism that restructured higher education in the name of productivity gains and ruthlessly cut non-productive departments and made staff redundant, became the saviour of the Left by imprinting a form of 'digital socialism'. While the new digital technologies promoted collaboration peer-to-peer production and the production of social goods, the latter did not necessarily flourish in universities, even although the university was traditionally the home of transnational research relationships. New digital applications became highly concentrated in departments of computer science and depended on a new Technorati often recruited from industry and sympathetic to the administration, who managed staff and assisted them to load all courses on new delivery platforms and administered staff and student

management systems. There were large-scale changes in academic publishing especially in online journal systems, digital books and digital library outreach that provided full-text searches of large data bases from the 1990s onwards. Big academic publishers and internet aggregators made available new online journal systems and databases. The big academic publishers were quick to exploit the network effects of online systems and made substantial profits through bundling. Some, like Elsevier, the world's largest scientific journal publisher, were accused of price gauging and became the subject of a boycott organized by the Cambridge mathematician Timothy Gowers in 2012 not to publish or do any editorial work for the company's journals, including refereeing papers.

Digital Socialism

There has been a great deal of discussion about 'digital socialism' that also goes by a variety of other terms: the 'new new economy', 'gift economy', 'open knowledge production', 'peer production', 'collective intelligence', and 'postcapitalism'. These are a few of the more resilient terms to survive in the literature. Yet these terms, while attempting to name the Zeitgeist of the digital age and the form of economy in-waiting, have very different emphases. The extent to which these terms understand that 'digital socialism' is fundamentally an argument about intellectual property and the ownership of the means of digital production is most unclear.

We might accept the principles of the knowledge economy expressed in digital terms as a form of technological utopianism and the basis of a post-capitalist society. The now-traditional argument is that knowledge and information do not behave like other commodities that are depleted when used; rather, in an economy of abundance, information and knowledge goods can grow through shared use and therefore do not suffer the same economics of scarcity that characterized the industrial economy. Based on this simple truth, Paul Mason (Mason 2015a) argues that we are entering the 'postcapitalist era', the sharing economy and new ways of working that arise in a dynamic form from the old capitalist system, which have:

- reduced the need for work, blurred the edges between work and free time and loosened the relationship between work and wages;
- corroded the market's ability to form prices correctly. That is because markets are based on scarcity while information is abundant;
- led to the spontaneous rise of collaborative production: goods, services and organisations are appearing that no longer respond to the dictates of the market and the managerial hierarchy.

We are told that the signs are there, but you have to look hard for them: new currencies, time-banks, new style cooperatives, local exchange banks, novel forms of ownership and lending, new business models, reinvention of 'the commons', peer production, the production of new social goods and social innovation. Mason refers to Marx's *Fragment on Machines* (<http://thenewobjectivity.com/pdf/marx.pdf>) that

has inspired a generation of digital theorists from Manuel Castells to Yochai Benkler, who dream of free networked collaborative production of social goods. Marx's 'Fragment on Machines', a section of the *Grundrisse*, has become a crucial text for the analysis and definition of the Postfordist mode of production, especially by those thinkers influenced by the Italian *postoperaismo* conception of capitalism developed by Paul Virno, Hardt and Negri and other scholars (Pitts 2017). Virno (2001) suggests that Marx

claims that, due to its autonomy from it, abstract knowledge—primarily yet not only of a scientific nature - is in the process of becoming no less than the main force of production and will soon relegate the repetitious labour of the assembly line to the fringes. This is the knowledge objectified in fixed capital and embedded in the automated system of machinery. Marx uses an attractive metaphor to refer to the knowledges that make up the epicentre of social production and preordain all areas of life: general intellect (<http://generation-online.org/p/fpvirno10.htm>).

Where capitalism was structured around the market that gave us massive and increasing global inequalities, postcapitalism, whose precondition is abundance, is (hopefully) to be structured around human liberation. Mason's (Mason 2015b) *PostCapitalism: A Guide to our Future* records the threat of the digital techno-revolution to capitalism in the tradition of Marx, Kondratiev, Hilferding and Schumpeter as well as Rifkin, Drucker, and Romer. The full vision imagines an information economy where social goods are produced at virtually no cost. Yet some Left critics argue that Mason has mischaracterized digital capitalism, misdiagnosed the inevitable decline of capitalism, overestimated the role of information technology and underestimated the role of finance, and ignores the green alternatives (http://wiki.p2pfoundation.net/Main_Page). Yet the concept has taken hold. The full vision is also given expression by the web project 'Envisioning a Post-Capitalist Order' which is

is a cooperative, nonsectarian venture of left journals, popular education centers, and electronic media. Our goal is to make easily available the wide range of new programs, experiments, and theories analyzing the transition beyond capitalism toward a socialist future, recognizing that "socialism" is a protean concept encompassing many different historical experiences and future possibilities (<http://postcapitalistproject.org/about>)

In these web pages, Michael Albert and Robin Hahnel's model of the 'participative economy' figures largely as part of the quest for a viable vision to replace neoliberalism. Peter Drucker (1993) was the first to use the term 'post-capitalism'. In an interview with Peter Schwartz in *Wired*, he opined

International economic theory is obsolete. The traditional factors of production - land, labor, and capital - are becoming restraints rather than driving forces. Knowledge is becoming the one critical factor of production. It has two incarnations: Knowledge applied to existing processes, services, and products is productivity; knowledge applied to the new is innovation. (Schwarz 1993)

Drucker's *Post-Industrial Society*, along with works of Daniel Bell, Marc Porat and Alain Touraine, plotted the shape of post-industrial and post-capitalist society. Some might say it's been a long time coming but the outlines are clear enough and

our grasp of economic and social fundamentals are clearer now than any time in the past. The information revolution in its fifth generation has made the contours easier to understand: a deepening of neoliberal capitalism as a form of financialization—a highly symbolic mathematical game of trading futures with widening global inequalities—as well as an incipient socialization and democratization of knowledge through new brave social experiments involving participation, collaboration, peer production and collective intelligence that characterize the so-called knowledge economy with the capacity to transcend the paradigm of intellectual property (Fig. 14.1).

One savvy tech commentator, Kevin Kelly (2009), the founder of *Wired* magazine, used the term ‘digital socialism’ to proclaim that a new global collectivist society is coming online and he goes on to list communal aspects of digital culture based on sharing, cooperation, collaboration, and collectivism. He characterizes the differences between the old and the new socialism in the following way:

He provides a history of socialism that begins with Thomas More’s *Utopia* in 1516 that, after the *Communist Manifesto* and the Russian Revolution, jumps into the information register by recording the birth of [Blogger.com](#) (1999), Google’s one billion indexed pages (2000), Wikipedia (2001), Twitter (2006), Facebook’s 100 million users (2008) and YouTube’s 100 million monthly US users (2008). He is motivated by Clay Shirky’s (2009) *Here Comes Everyone* and Yochair Benkler’s *The Wealth of Networks*. He ends his brief essay with the following prophetic remark:

We underestimate the power of our tools to reshape our minds. Did we really believe we could collaboratively build and inhabit virtual worlds all day, every day, and not have it affect our perspective? The force of online socialism is growing. Its dynamic is spreading beyond electrons—perhaps into elections. (Kelly 2009)

Without doubt, there has been massive technological change, but it is unclear to what extent ‘digital socialism’ has matured or, indeed, exists outside small resilient pockets to create the ‘intellectual commons’ with its new institutional possibilities. Can it really achieve its potential as a locus of true social and intellectual inclusion, and social and economic creativity? There is a deep transformation occurring wherein the Web has become a truly participatory media; instead of going on the web to read static content, we can more easily create and share our own ideas and creations. The rise of what has been alternately referred to as consumer- or user-generated media (content) has been hailed as being truly ground-breaking in nature. As we mentioned earlier, the contrast is clear in terms of a distinction between ‘industrial media’, ‘broadcast’ or ‘mass’ media which are highly centralized, hierarchical and vertical, based on one-to-many logic, versus social media which are decentralized (without a central server), non-hierarchical or peer governed, and horizontal based on many-to-many interaction. The intellectual commons provide an alternative to the currently dominant ‘knowledge capitalism’. Whereas knowledge capitalism focuses on the economics of knowledge, emphasizing human capital development, intellectual property regimes, and efficiency and profit maximization, the intellectual commons, let’s call it ‘knowledge socialism’, shifts the emphasis towards recognition that knowledge and its value are ultimately rooted

Fig. 14.1 The differences between the old and the new socialism characterized by Kevin Kelly (2009)

in social relations, a kind of genuine knowledge socialism that promotes the sociality of knowledge by providing mechanisms for a truly free exchange of ideas (Peters 2014).

Political Economy of Academic Publishing

Arif E. Jinha (2009) calculates that there are some 50 million articles in existence, the cumulative total since academic publishing began with *Le Journal des Sçavans* and *Philosophical Transactions*, both first published in 1665. He also indicates there were some 23,750 journal titles in 2006. The number of academic journals is increasing year by year. The history of scientific communication, even in the post-war period, is a mammoth undertaking where technological developments and the new paradigm of open knowledge production seem to outstrip our capacity to give an adequate theoretical account of them. There is so much experimentation by way of new electronic journals launched and new projects being established that it is near impossible to document even the range in its diversity, let alone theorize its main characteristics and implications for the digitization of scientific communication. One source, perhaps the most comprehensive, provides a bibliography on scholarly electronic publishing that runs to 1400 items in English under such categories as: economic issues; electronic books & texts; electronic serials; general works; legal issues; library issues; new publishing models; publisher issues; repositories, e-prints and AOI (Bailey 2010; see also 2001). The history of electronic scientific communication itself is now nearly twenty years old, if we date the process from the appearance of the first electronic journals. The electronic revolution of those first utopian years in the early 1990s with predictions of the collapse of the traditional print-based system, the demise of academic publishers, and the replacement by electronic journals, has not yet happened.

The history of scientific communication demonstrates that the typical form of the scientific article presented in print-based journals in essay form is a result of development over two centuries, beginning in seventeenth century with the emergence of learned societies and cooperation among scientists. The development of the journal and scientific norms of cooperation, forms of academic writing and the norm of peer review was part of the institutionalization of science. The model of the Royal Society that was emulated elsewhere in Europe and the US, and then later institutionalization, received a strong impetus from the emergence of the modern research university, beginning with the establishment of the University of Berlin in 1810 in the reforms of Humboldt. This institutionalization of science was necessarily also a part of the juridical-legal system of writing that grew up around the notion of a professional scientist and academic, the notion of the academic author, the idea of public science or research, the ownership of ideas and academic recognition for the author who claimed originality for a discovery, set of results or piece of scholarship.

Mark Ware (Ware 2015), in his overview of scientific and scholarly journal publishing, suggests

There are estimated to be of the order of 5000–10,000 journal publishers globally, of which around 5000 are included in the Scopus database. The main English-language trade and professional associations for journal publishers collectively include about 650 publishers producing around 11,550 journals, that is, about 50% of the total journal output by title. Of these, some 480 publishers (73%) and about 2300 journals (20%) are not-for-profit [...]

There were about 28,100 active scholarly peer-reviewed English-language journals in late 2014 (plus a further 6450 non-English-language journals), collectively publishing about 2.5 million articles a year. The number of articles published each year and the number of journals have both grown steadily for over two centuries, by about 3% and 3.5% per year respectively, though there are some indications that growth has accelerated in recent years. The reason is the equally persistent growth in the number of researchers, which has also grown at about 3% per year and now stands at between 7 and 9 million, depending on definition, although only about 20% of these are repeat authors [...] (Ware 2015, p. 6)

He estimates the annual revenues from English-language STM journal publishing are estimated at about \$10 billion in 2013, in an industry that employs 110,000 people globally. These figure are now hopelessly out of date. Larivière et al. (2015) investigate 'The Oligopoly of Academic Publishers in the Digital Era'. Analysing 45 million documents indexed in the Web of Science over the period 1973–2013, they show that Reed-Elsevier, Wiley Blackwell, Springer, and Taylor and Francis substantially increased their share of the world's published output:

Combined, the top five most prolific publishers account for more than 50% of all papers published in 2013. Disciplines of the social sciences have the highest level of concentration (70% of papers from the top five publishers), while the humanities have remained relatively independent (20% from top five publishers). (Larivière 2015, p. 1)

This concentration of ownership and the number journals will be affected by the introduction of AI and deep learning into academic publishing particularly with detecting plagiarism and data fabrication, but also through the use of search engines for published texts and data (<https://www.enago.com/academy/artificial-intelligence-research-publishing/>). Major publishers are looking carefully at the transformation from publishing to data analytics. WCU depends on citation analysis, a flawed but objective measure that drives rankings of research universities. Quality of teaching is elusive and based on outcomes and subjective reputational measures. Journal impact factors are notoriously fickle and open to manipulation (Davis 2017), but in large measure they determined the research component of most global rankings. To be sure, one of the biggest hurdles to openness and alternatives to rankings are publication paywalls.

Open Access, cOAlition S, and 'Plan S'

As Marc Schiltz (2018) President of Science Europe, argues under the heading 'Open Access is Foundational to the Scientific Enterprise':

Universality is a fundamental principle of science (the term "science" as used here includes the humanities): only results that can be discussed, challenged, and, where appropriate,

tested and reproduced by others qualify as scientific. Science, as an institution of organised criticism, can therefore only function properly if research results are made openly available to the community so that they can be submitted to the test and scrutiny of other researchers. Furthermore, new research builds on established results from previous research. The chain, whereby new scientific discoveries are built on previously established results, can only work optimally if all research results are made openly available to the scientific community.

Publication paywalls are withholding a substantial amount of research results from a large fraction of the scientific community and from society as a whole. This constitutes an absolute anomaly, which hinders the scientific enterprise in its very foundations and hampers its uptake by society. Monetising the access to new and existing research results is profoundly at odds with the ethos of science (Merton 1973). There is no longer any justification for this state of affairs to prevail and the subscription-based model of scientific publishing, including its so-called ‘hybrid’ variants, should therefore be terminated. In the 21st century, science publishers should provide a service to help researchers disseminate their results. They may be paid fair value for the services they are providing, *but no science should be locked behind paywalls!* (Schiltz 2018)

Openness is more than just a notional global public good as ‘Plan S’ demonstrates: “Plan S is an initiative for Open Access publishing that was launched in September 2018. The plan is supported by cOAlition S, an international consortium of research funders. Plan S requires that, from 2020, scientific publications that result from research funded by public grants must be published in compliant Open Access journals or platforms” (<https://www.coalition-s.org/>). The main principle is uncompromising: “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 (<https://www.coalition-s.org/about/>). National research funding organizations in Europe, with the support of the European Commission and the European Research Council (ERC), announced the launch Plan S based on ten principles enumerated here:

1. Authors retain copyright of their publication with no restrictions. All publications must be published under an open license, preferably the Creative Commons Attribution Licence CC BY. In all cases, the license applied should fulfil the requirements defined by the Berlin Declaration;
2. The Funders will ensure jointly the establishment of robust criteria and requirements for the services that compliant high quality Open Access journals and Open Access platforms must provide;
3. In case such high quality Open Access journals or platforms do not yet exist, the Funders will, in a coordinated way, provide incentives to establish and support them when appropriate; support will also be provided for Open Access infrastructures where necessary;
4. Where applicable, Open Access publication fees are covered by the Funders or universities, not by individual researchers; it is acknowledged that all scientists should be able to publish their work Open Access even if their institutions have limited means;

5. When Open Access publication fees are applied, their funding is standardised and capped (across Europe);
6. The Funders will ask universities, research organisations, and libraries to align their policies and strategies, notably to ensure transparency;
7. The above principles shall apply to all types of scholarly publications, but it is understood that the timeline to achieve Open Access for monographs and books may be longer than 1 January 2020;
8. The importance of open archives and repositories for hosting research outputs is acknowledged because of their long-term archiving function and their potential for editorial innovation;
9. The 'hybrid' model of publishing is not compliant with the above principles;
10. The Funders will monitor compliance and sanction non-compliance. (<https://www.coalition-s.org/10-principles/>)

The battle with big academic publishers is becoming more intense. Sarah Zhang (Zhang 2019) asks 'Is this the end of a very profitable business model?', after the University of California broke with Elsevier, one of the world's largest academic publishers. As she indicates: 'The university would no longer pay Elsevier millions of dollars a year to subscribe to its journals. It simply walked away' (<https://www.theatlantic.com/science/archive/2019/03/uc-elsevier-publisher/583909/>). She reports:

Not so long ago, blowing off a publisher as important as Elsevier would have been unthinkable. But academics have been joining in an open revolt against Elsevier's extremely profitable business model. In 2012, mathematicians started a petition to boycott the publisher that has since been signed by [more than 17,000 researchers](#). In December 2016, universities in Germany stopped paying for Elsevier's journals. In 2018, the same thing happened in Sweden and then [Hungary](#).

There is a global push for open access science and that scientific publishers are increasing bypassing publishers (Elliott and Resnik 2019). The Office of Scholarly Communication, the University of California, reports that the Academic Council

signals its collective and resolute commitment to support UC's negotiating position with Elsevier in order to advance UC's mission as a public institution, make the products of our research and scholarship as freely and widely available as possible, and ensure that UC spends taxpayer money in the most ethically, morally, and socially-responsible way when entering into agreements with commercial publishers.

UC was looking for an agreement where their Elsevier authors would retain their copyrights and articles would become open access. The Council statement goes on to say: 'Most significantly, a successful agreement would align closely with the mission of the University to provide "long-term societal benefits through transmitting advanced knowledge, discovering new knowledge, and functioning as an active working repository of organized knowledge."' (<https://osc.universityofcalifornia.edu/open-access-at-uc/publisher-negotiations/uc-and-elsevier/>).

While Plan S and journal Open Access do not exhaust the concept of 'digital socialism' or even approximate to a political system of openness, they do provide a powerful working example and a massive historical watershed to academic

publishing in the digital age that threatens to destabilise the academic market and the neoliberal idea of the university insofar as it impinges of the paradigm of intellectual property. They check the dominance of big publishers in the West that props up a hegemonic system of an Anglo-American, historically privileged global journal knowledge system. As for ‘digital socialism’ or ‘post-capitalism’ more broadly within academia, we might have to wait a while for the main revolution.

With characteristic economic and political insight, Roberto Mangabeira Unger (Unger 2018) sums up the collective promise of the most advanced practice of production:

A new practice of production has emerged in all the major economies of the world. The simplest and most telling of its many names is the knowledge economy. We might also call it the experimental economy to highlight its most characteristic attitude to its own work. It holds the promise of changing, to our benefit, some of the most deep-seated and universal regularities of economic life and of dramatically enhancing productivity and growth.

Its effects, however, have so far proved modest. Instead of spreading widely, it has remained restricted to vanguards of production, employing few workers. Entrepreneurial and technological elites control it. A handful of large global firms have reaped the lion's share of the profits that it has yielded. It appears in every part of the production system; the habit of equating it with high-technology industry is unwarranted. In every sector of the economy, however, it remains a narrow fringe, excluding the vast majority of the labor force. Even though its products are used ever more widely, its revolutionary practices continue to be quarantined.

The WCU and the global ranking schemes legitimate the discourse and continue to profit from the illusion of an ‘implausible dream’ (Mittelman 2017). The benefits of open access have yet to spread to the Global South and help to distribute the benefits of the knowledge economy more widely. Scholars have been discussing alternatives to the reputational race. Hazelkorn and Gibson (2017) mention that the ‘flagship’ university developed ‘in explicit opposition to the self-serving WCU’ (p. 8), the ‘civic’ university, and the ‘world-class system’ (WCS). Our suggestion, in line with a sharing academic economy and the critique of neoliberalism is ‘knowledge socialism’. Universities need to share knowledge in the search for effective responses to pressing world problems of fragile global ecologies and the growing significance of technological unemployment. This is a model that proceeds from a very different set of economic and moral assumptions than the neoliberal knowledge economy and the WCU. It focuses on the logic of distribution of knowledge to regions outside the mainstream Anglo-American top 200; it looks to institutional, national and global platforms that operate on the model of collective intelligence and peer production; and, it actively promotes the principles of knowledge socialism.

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