



## Against innovation: Compromised institutional agency and acts of custodianship

Marcell Mars and Tomislav Medak

### abstract

In this essay we reflect on the historic crisis of the university and the public library as two modern institutions tasked with providing universal access to knowledge and education. This crisis, precipitated by pushes to marketization, technological innovation and financialization in universities and libraries, has prompted the emergence of shadow libraries as collective disobedient practices of maintenance and custodianship. In their illegal acts of reversing property into commons, commodification into care, we detect a radical gesture comparable to that of the historical avant-garde. To better understand how the university and the public library ended up in this crisis, we re-trace their development starting with the capitalist modernization around the turn of the 20th century, a period of accelerated technological innovation that also birthed historical avant-garde. Drawing on Perry Anderson's 'Modernity and Revolution', we interpret that uniquely creative period as a period of ambivalence toward an 'unpredictable political future' that was open to diverging routes of social development. We situate the later re-emergence of avant-garde practices in the 1960s as an attempt to subvert the separations that a mature capitalism imposes on social reality. In the present, we claim, the radicality equivalent to the avant-garde is to divest from the disruptive dynamic of innovation and focus on the repair, maintenance and care of the broken social world left in techno-capitalism's wake. Comparably, the university and the public library should be able to claim the radical those gesture of slowdown and custodianship too, against the imperative of innovation imposed on them by policymakers and managers.

### Custodians.online, the first letter

On 30 November, 2015 a number of us shadow librarians who advocate, build and maintain 'shadow libraries', i.e. online infrastructures allowing users to digitise, share and debate digital texts and collections, published a letter

(Custodians.online, 2015) in support of two of the largest user-created repositories of pirated textbooks and articles on the Internet – Library Genesis and Science Hub. Library Genesis and Science Hub’s web domain names were taken down after a New York court issued an injunction following a copyright infringement suit filed by the largest commercial academic publisher in the world – Reed Elsevier. It is a familiar trajectory that a shared digital resource, once it grows in relevance and size, gets taken down after a court decision. Shadow libraries are no exception.

The world of higher education and science is structured by uneven development. The world’s top-ranked universities are concentrated in a dozen rich countries (Times Higher Education, 2017), commanding most of the global investment into higher education and research. The oligopoly of commercial academic publishers is headquartered in no more than half of those. The excessive rise of subscription fees has made it prohibitively expensive even for the richest university libraries of the Global North to provide access to all the journals they would need to (Sample, 2012), drawing protest from academics all over the world against the outrageously high price tag that Reed Elsevier puts on their work (‘The Cost of Knowledge’, 2012). Against this concentration of economic might and exclusivity to access, stands the fact that the rest of the world has little access to the top-ranked research universities (Baty, 2017; Henning, 2017) and that the poor universities are left with no option but to tacitly encourage their students to use shadow libraries (Liang, 2012). The editorial director of global rankings at the Times Higher Education Phil Baty minces no words when he bluntly states ‘that money talks in global higher education seems ... to be self-evident’ (Baty, 2017). Uneven economic development reinforces global uneven development in higher education and science – and vice versa. It is in the face of this combined economic and educational unevenness, that Library Genesis and Science Hub, two repositories for a de commodified access to otherwise paywalled resources, attain a particular import for students, academics and researchers worldwide. And it is in the face of combined economic and educational unevenness, that Library Genesis and Science Hub continue to brave the court decisions, continuously changing their domain names, securing ways of access beyond the World Wide Web and ensuring robust redundancy of the materials in their repositories.

The Custodians.online letter highlights two circumstances in this antagonism that cut to the core of the contradictions of reproduction within academia in the present. The first is the contrast between the extraction of extreme profits from academia through inflated subscription prices and the increasingly precarious conditions of studying, teaching and researching:

Consider Elsevier, the largest scholarly publisher, whose 37% profit margin stands in sharp contrast to the rising fees, expanding student loan debt and poverty-level wages for adjunct faculty. Elsevier owns some of the largest databases of academic material, which are licensed at prices so scandalously high that even Harvard, the richest university of the global north, has complained that it cannot afford them any longer. (Custodians.online, 2015: n.p.)

The enormous profits accruing to an oligopoly of academic publishers are a result of a business model premised on harvesting and enclosing the scholarly writing, peer reviewing and editing is done mostly for free by academics who are often-times struggling to make their ends meet in the higher education environment (Larivière et al., 2015).

The second circumstance is that shadow libraries invert the property relation of copyright that allows publishers to exclude all those students, teachers and researchers who don't have institutional access to scholarly writing and yet need that access for their education and research, their work and their livelihood in conditions of heightened precarity:

This is the other side of 37% profit margins: our knowledge commons grows in the fault lines of a broken system. We are all custodians of knowledge, custodians of the same infrastructures that we depend on for producing knowledge, custodians of our fertile but fragile commons. To be a custodian is, de facto, to download, to share, to read, to write, to review, to edit, to digitize, to archive, to maintain libraries, to make them accessible. It is to be of use to, not to make property of, our knowledge commons.) (Custodians.online, 2015)

Shadow libraries thus perform an inversion that replaces the ability of ownership to exclude, with the practice of custodianship (notion implying both the labor of preservation of cultural artifacts and the most menial and invisible labor of daily maintenance and cleaning of physical structures) that makes one useful to a resource held in common and the infrastructures that sustain it.

These two circumstances – antagonism between value extraction and precarity and antagonism between exclusive property and collective custodianship – signal a deeper-running crisis of two institutions of higher education and research that are caught in a joint predicament: the university and the library. This crisis is a reflection of the impossible challenges placed on them by the capitalist development, with its global division of labor and its looming threat of massive technological unemployment, and the response of national policymakers to those challenges: Are they able to create a labor force that will be able to position itself in the global labor market with ever fewer jobs to go around? Can they do it with less money? Can they shift the cost, risk and responsibility for social challenges to individual students and patrons, who are now facing the prospect of their investment in education never working out? Under these circumstances, the

imperative is that these institutions have to re-invent themselves, that they have to innovate in order to keep up with the disruptive course and accelerated the pace of change.

### **Custodianship and repair**

In what follows we will argue against submitting to this imperative of innovation. Starting from the conditions from which shadow libraries emerge, as laid out in the first Custodians.online letter, we claim that the historical trajectory of the university and the library demands that they now embrace a position of disobedience. They need to go back to their universalizing mission of providing access to knowledge and education unconditionally to all members of society. That universalism is a powerful political gesture. An infinite demand (Critchley, 2007) whereby they seek to abolish exclusions and affirm the legacy of the radical equality they have built as part of the history of emancipatory struggles and advances since the revolutions of 1789 and 1848. At the core of this legacy is a promise that the capacity of members of society to collectively contest and claim rights so as to become free, equal and solidaric is underwritten by a capacity to have informed opinion, attain knowledge and produce a pedagogy of their own.

The library and the university stand in a historical trajectory of revolutions, a series of historical discontinuities. The French Revolution seized the holdings of the aristocracy and the Church, and brought a deluge of books to the *Bibliothèque Nationale* and the municipal libraries across France (Harris, 1999). The Chartism might have failed in its political campaign in 1848, but was successful in setting up the reading rooms and emancipating the working class education from moral inculcation imposed on them by the ruling classes (Johnson, 2014). The tension between continuity and discontinuity that comes with disruptive changes was written into their history long before the present imperative of innovation. And yet, if these institutions are social infrastructures that have ever since sustained the production of knowledge and pedagogy by re-producing the organizational and material conditions of their production, they warn us against taking that imperative of innovation at face value.

The entrepreneurial language of innovation is the vernacular of global technocapitalism in the present. Radical disruption is celebrated for its ability to depose old monopolies and birth new ones, to create new markets and its first movers to replace old ones (Bower and Christensen, 1996). It is a formalization reducing the complexity of the world to the capital's dynamic of creative destruction (Schumpeter, 2013), a variant of an old and still hegemonic productivism that understands social development as primarily a function of radical advances in

technological productivity (Mumford, 1967). According to this view, what counts is that spurts of technological innovation are driven by cycles of financial capital facing slumping profits in production (Perez, 2011).

However, once the effect of gains from new technologies starts to slump, once the technologist's dream of improving the world hits the hard place of venture capital monetization and capitalist competition, once the fog of hyped-up technological boom clears, that which is supposedly left behind comes the fore. There's then the sunken fixed capital that is no longer productive enough. There's then technical infrastructures and social institutions that were there before the innovation and still remain there once its effect tapers off, removed from view in the productivist mindset, and yet invisibly sustaining that activity of innovation and any other activity in the social world we inhabit (Hughes, 1993). What remains then is the maintenance of stagnant infrastructures, the work of repair to broken structures and of care for resources that we collectively depend on.

As a number of scholars who have turned their attention to the matters of repair, maintenance and care suggest, it is the sedimented material infrastructures of the everyday and their breakdown that in fact condition and drive much of the innovation process (Graham and Thrift, 2007; Jackson, 2014). As the renowned historian of technology Thomas Hughes suggested (Hughes, 1993), technological changes largely address the critical problems of existing technologies. Earlier still, in the 1980s, David Noble convincingly argued that the development of forces of production is a function of the class conflict (Noble, 2011). This turns the temporal logic of innovation on its head. Not the creative destruction of a techno-optimist kind, but the malfunctioning of technological infrastructures and the antagonisms of social structures are the elementary pattern of learning and change in our increasingly technological world. As Stephen Graham and Nigel Thrift argued (2007), once the smooth running production, consumption and communication patterns in the contemporary capitalist technosphere start to collapse, the collective coping strategies have to rise to the challenge. Industrial disasters, breakdowns of infrastructures and natural catastrophes have taught us that much.

In an age where a global division of labor is producing a growing precarity for ever larger segments of the world's working population and the planetary systems are about to tip into non-linear changes, a truly radical gesture is that which takes as its focus the repair of the effects of productivism. Approaching the library and the university through the optic of social infrastructure allows us to glimpse a radicality that their supposed inertia, complexity and stability make

possible. This slowdown enables the processes of learning and the construction of collective responses to the double crisis of growth and the environment.

In a social world in which precarity is differently experienced between different groups, these institutions can accommodate that heterogeneity and diminish their insecurities, helping the society effectively support structural change. They are a commons in the non-substantive sense that Lauren Berlant (2016) proposes, a 'transitional form' that doesn't elide social antagonisms and that lets different social positions loosely converge, in order to become 'a powerful vehicle for troubling troubled times' (Berlant, 2016: 394-395).

The trajectory of radical gestures, discontinuities by re-invention, and creative destruction of the old have been historically a hallmark of the avant-gardes. In what follows, we will revisit the history of the avant-gardes, claiming that, throughout their periodic iterations, the avant-gardes returned and mutated always in response to the dominant processes and crises of the capitalist development of their time. While primarily an artistic and intellectual phenomenon, the avant-gardes emerged from both an adversarial and a co-constitutive relation to the institutions of higher education and knowledge production. By revisiting three epochal moments along the trajectory of the avant-gardes – 1917, 1967 and 2017 – we now wish to establish how the structural context for radical disruption and radical transformation were historically changing, bringing us to the present conjuncture where the library and the university can reclaim the legacy of the avant-gardes by seemingly doing its exact opposite: refusing innovation.

### **1917 – Industrial modernization, accelerated temporality and revolutionary subjectivity**

In his text on 'Modernity and Revolution' Perry Anderson (1984) provides an unexpected, yet the cogent explanation of the immense explosion of artistic creativity in the short span of time between the late nineteenth and early twentieth century that is commonly periodized as modernism (or avant-garde, which he uses sparsely yet interchangeably). Rather than collapsing these wildly diverging movements and geographic variations of artistic practices into a monolithic formation, he defines modernism as a broad field of singular responses resulting from the larger socio-political conjuncture of industrial modernity. The very different and sometimes antithetical currents of symbolism, constructivism, futurism, expressionism or suprematism that emerge in modernism's fold were defined by three coordinates: 1) an opposition to the academicism in the art of the *ancien régime*, which modernist art tendencies both

draw from and position themselves against, 2) a transformative use of technologies and means of communication that were still in their promising infancy and not fully integrated into the exigencies of capitalist accumulation and 3) a fundamental ambivalence vis-à-vis the future social formation – capitalism or socialism, state or soviet – that the process of modernization would eventually lead to. As Anderson summarizes:

European modernism in the first years of this century thus flowered in the space between a still usable classical past, a still indeterminate technical present, and a still unpredictable political future. Or, put another way, it arose at the intersection between a semi-aristocratic ruling order, a semi-industrialized capitalist economy, and a semi-emergent, or -insurgent, labour movement. (Anderson, 1984: 150)

Thus these different modernisms emerged operating within the coordinates of their historical present, – committed to a substantive subversion of tradition or to an acceleration of social development. In his influential theory of the avant-garde, Peter Bürger (1984) roots its development in the critique of autonomy the art seemingly achieved with the rise of capitalist modernity between the eighteenth and late nineteenth century. The emergence of bourgeois society allowed artists to attain autonomy in a triple sense: art was no longer bounded to the representational hierarchies of the feudal system; it was now produced individually and by individual fiat of the artist; and it was produced for individual appreciation, universally, by all members of society. Starting from the ideal of aesthetic autonomy enshrined in the works of Kant and Schiller, art eventually severed its links from the boundedness of social reality and made this freedom into its subject matter. As the markets for literary and fine artworks were emerging, artists were gaining material independence from feudal patronage, the institutions of bourgeois art were being established, and '[a]estheticism had made the distance from the praxis of life the content of works' (Bürger, 1984: 49) While capitalism was becoming the dominant reality, the freedom of art was working to suppress the incursion of that reality in art. It was that distance, between art and life, that historical avant-gardes would undertake to eliminate when they took aim at bourgeois art. With the 'pathos of historical progressiveness on their side' (Bürger, 1984: 50), the early avant-gardes were thus out to relate and transform art and life in one go.

Early industrial capitalism unleashed an enormous social transformation through the formalization and rationalization of processes, the coordination and homogenization of everyday life, and the introduction of permanent innovation. Thus emerged modern bureaucracy, mass society and technological revolutions. Progress became the *telos* of social development. Productive forces and global expansion of capitalist relations made the humanity and the world into a new

horizon of both charitable and profitable endeavors, emancipatory and imperial. The world became a project (Krajewski, 2014).

The avant-gardes around the turn of the 20th century integrated and critically inflected these transformations. In the spirit of the October Revolution, its revolutionary subjectivity approached social reality as eminently transformable. And yet, a recurrent concern of artists was with the practical challenges and innovations of accelerated modernization: how to control, coordinate and socially integrate the immense expansionary forces of early industrialization. This was an invitation to insert one's own radical visions into life and create new forms of standardization and rationality that would bring society out of its pre-industrial backwardness. Central to the avant-garde was abolishing the old and creating the new, while overcoming the separation of art and social practice. Unleashing imaginary and constructive forces in a reality that has become rational, collective and universal: that was its utopian promise; that was its radical innovation. Yet, paradoxically, it is only once there is the new that the previously existing social world can be formalized and totalized as the old and the traditional. As Boris Groys (2014) insisted, the new can be only established once it stands in a relation to the archive and the museum. This tendency was probably nowhere more in evidence than, as Sven Spieker documents in his book 'The big archive – Art from bureaucracy' (2008), in the obsession of Soviet constructivists and suprematists with the archival ordering of the flood of information that the emergent bureaucratic administration and industrial management were creating on an unprecedented scale.

The libraries and the universities followed a similar path. As the world became a project, the aggregation and organization of all knowledge about the world became a new frontier. The pioneers of library science, Paul Otlet and Melvil Dewey, consummating the work of centuries of librarianship, assembled index card catalogs of everything and devised classificatory systems that were powerful formalizations of the increasingly complex world. These index card catalogs were a 'precursor of computing: universal paper machine', (Krajewski, 2011), pre-dating the 'universal Turing machine' and its hardware implementations by Konrad Zuse and John von Neumann by almost half a century. Knowledge thus became universal and universalizable: while libraries were transforming into universal information infrastructures, they were also transforming into places of popular reading culture and popular pedagogy. Libraries thus were gaining centrality in the dissemination of knowledge and culture, as the reading culture was becoming a massive and general phenomenon. Moreover, during the second part of the nineteenth and the first part of the twentieth century, the working class would struggle to transform not only libraries, but also universities, into public institutions providing free access to culture and really useful knowledge



necessary for the self-development and self-organization of the masses (Johnson, 2014).

While universities across the modernizing Europe, US and USSR would see their opening to the masses only in the coming decades later, they shyly started to welcome the working class and women. And yet, universities and schools were intense places of experimentation and advancement. The Moscow design school VKhUTEMAS, for instance, carried over the constructivists concerns into the practicalities of the everyday, constructing socialist objects for a new collective life, *novyi byt*, in the spirit of 'Imagine no possessions' (2005), as Christina Kiaer has punned in the title of her book. But more importantly, the activities of universities were driven by the promise that there are no limits to scientific discovery and that a Leibnitzian dream of universal formalization of language can be achieved through advances in mathematics and logic.

### 1967 – Mature capitalism, spectacle, resistant subjectivity

In this periodization, the central contention is that the radical gesture of destruction of the old and creation of the new that was characteristic of the avant-garde has mutated as the historic coordinates of its emergence have mutated too. Over the last century the avant-garde has divested from the radical gestures and has assumed a relation to the transformation of social reality that is much more complicated than its erstwhile cohort in disruptive change – technological innovation – continues to offer. If technological modernization and the avant-garde were traveling companions at the turn of the twentieth century, after the WWII they gradually parted their ways. While the avant-garde rather critically inflects what capitalist modernity is doing at a particular moment of its development, technological innovation remained in the same productivist pattern of disruption and expansion. That technological innovation would remain beholden to the cyclical nature of capitalist accumulation is, however, no mere ideological blind-spot. Machinery and technology, as Karl Marx insists in *The Grundrisse*, is after all 'the most adequate form of capital' (1857) and thus vital to its dynamic. Hence it comes as no surprise that the trajectory of the avant-garde is not only a continued substantive subversion of the ever new separations that capitalist system produces in the social reality, but also a growing critical distance to technology's operation within its development.

Thus we skip forward half a century. The year is 1967. Industrial development is at its apex. The despotism of mass production and its attendant consumerist culture rules over the social landscape. After the WWII, the working class has achieved great advances in welfare. The 'control crisis' (Beniger, 1989), resulting

from an enormous expansion of production, distribution and communication in the 19th century, and necessitating the emergence of the capacity for coordination of complex processes in the form of modern bureaucracy and information technology, persists. As the post-WWII golden period of gains in productivity, prosperity and growth draws to a close, automation and computerization start to make their way from the war room to the shop floor. Growing labor power at home and decolonization abroad make the leading capitalist economies increasingly struggle to keep profits rates at levels of the previous two decades. Socialist economies struggle to overcome the initial disadvantages of belated modernization and instill the discipline over labor in order to compete in the dual world-system. It is still a couple of years before the first oil crisis will break out and the neo-liberal retrenchment begin.

The revolutionary subjectivity of 1917 is now replaced by resistant militancy. Facing the monotony of continuous-flow production and the prospect of bullshit jobs in service industries that start to expand through the surplus of labor time created by technological advances (Graeber, 2013), the workers perfect the ingenuity in shirking the intensity and dullness of work. The consumerist culture instills boredom (Vaneigem, 2012), the social division of labor produces gendered exploitation at home (James, 2012), the paternalistic welfare provision results in loss of autonomy (Oliver, 1990).

Sensibility is shaped by mass media whose form and content are structured by the necessity of creating aggregate demand for the ever greater mass of commodities and thus the commodity spectacle comes to mediate social relations. In 1967 Guy Debord's 'The society of the spectacle' is published. The book analyses the totalizing capture of Western capitalist society by commodity fetishism, which appears as objectively given. Commodities and their mediatized simulacra become the unifying medium of social integration that obscures separations within the society. So, as the crisis of 1970s approaches, the avant-garde makes its return. It operates now within the coordinates of the mature capitalist conjuncture. Thus re-semantization, *détournement* and manipulation become the representational equivalent of simulating busyness at work, playing the game of hide-and-seek with the capitalist spectacle and turning the spectacle onto itself. While the capitalist development avails itself of media and computers to transform the reality into the simulated and the virtual, the avant-garde's subversive twist becomes to take the simulated and the virtual as reality and re-appropriate them for playful transformations. Critical distance is no longer possible under the centripetal impact of images (Foster, 1996), there's no revolutionary outside from which to assail the system, just one to escape from.

Thus, the exodus and autonomy from the dominant trajectory of social development rather than the revolutionary transformation of the social totality become the prevailing mode of emancipatory agency. Autonomy through forms of communitarian experimentation attempts to overcome the separation of life and work, home and workplace, reproduction and production and their concealment in the spectacle by means of micro-political experiments.

The university – in the meanwhile transformed into an institution of mass education, accessible to all social strata – suddenly catapults itself center-stage, placing the entire post-WWII political edifice with its authoritarian, repressive and neo-imperial structure into question, as students make radical demands of solidarity and liberation. The waves of radical political movements in which students play a central role spread across the world: the US, Czechoslovakia, France, Western Germany, Yugoslavia, Pakistan, and so on. The institution becomes a site from which and against which mass civil rights, anti-imperial, anti-nuclear, environmental, feminist and various other new left movements emerge.

It is in the context of exodus and autonomy that new formalizations and paradigms of organizing knowledge emerge. Distributed, yet connected. Built from bottom up, yet powerful enough to map, reduce and abstract all prior formalizations. Take, for instance, Ted Nelson's Project Xanadu that introduced to the world the notion of hypertext and hyperlinking. Pre-dating the World Wide Web by a good 25 years, Xanadu implemented the idea that a body of written texts can be understood as a network of two-way references. With the advent of computer networks, whose early adopters were academic communities, that formalization materialized in real infrastructure, paving the way for a new instantiation of the idea that the entire world of knowledge can be aggregated, linked and made accessible to the entire world. As Fred Turner documents in 'From counterculture to cyberculture' (2010), the links between autonomy-seeking dropouts and early cyberculture in the US were intimate. Countercultural ideals of personal liberation at a distance from the society converged with the developments of personal computers and computer networks to pave the way for early Internet communities and Silicon Valley entrepreneurialism.

No less characteristic of the period were new formalizations and paradigms of technologically-mediated subjectivity. The tension between the virtual and the real, autonomy and simulation of autonomy, was not only present in the avant-garde's playful takes on mass media. By the end of the 1950s, the development of computer hardware reached a stage where it was running fast enough to cheat human perception in the same way moving images on film and television did. In

the computer world, that illusion was time-sharing. Before the illusion could work, the concept of an individual computer user had to be introduced (Hu, 2015). The mainframe computer systems such as IBM 360/370 were fast enough to run a software-simulated ('virtual') clone of the system for every user (Pugh et al., 1991). This allowed users to access the mainframe not sequentially one after the other, but at the same time – sharing the process-cycles among themselves. Every user was made to feel as if they were running their own separate ('real') computer. The computer experience thus became personal and subjectivities individuated. This interplay of simulation and reality became common in the late 1960s. Fifty years later this interplay would become essential for the massive deployment of cloud computing, where all computer users leave traces of their activity in the cloud, but only few can tell what is virtual (i.e. simulated) and what is real (i.e. 'bare machine').

The libraries followed the same double trajectory of universities. In the 1960s, the library field started to call into question the merit of objectivity and neutrality that librarianship embraced in the 1920s with its induction into the status of science. In the context of social upheavals of the 1960s and 1970s, librarians started to question 'The Myth of Library Neutrality' (Branum, 2008). With the transition to a knowledge economy and transformation of the information into a commodity, librarians could no longer ignore that the neutrality had the effect of perpetuating the implicit structural exclusions of class, gender and race and that they were the gatekeepers of epistemic and material privilege (Jansen, 1989; Iverson 1999). The egalitarian politics written into the de-commodification and enabling the social mission of public libraries started to trump neutrality. Thus libraries came to acknowledge their commitment to the marginalized, their pedagogies and their struggles.

At the same time, library science expanded and became enmeshed with information science. The capacity to aggregate, organize and classify huge bodies of information, to view it as an interlinked network of references indexed in a card catalog, sat well with the developments in the computer world. In return, the expansion of access to knowledge that the new computer networks promised fell in line with the promise of public libraries.

### **2017 – Crisis in the present, financialization, compromised subjectivity**

We arrive in the present. The effects of neo-liberal restructuring, the global division of labor and supply-chain economy are petering out. Global capitalism struggles to maintain growth, while at the same time failing to slow down accelerating consumption of energy and matter. It thus arrives at a double crisis

– a crisis of growth and a crisis of planetary boundaries. Against the profit squeeze of 1970s, fixes were applied in the form of the relocation of production, the breaking-up of organized labor and the integration of free markets across the world. Yet those fixes have not stopped the long downturn of the capitalist system that pinnacled in the crisis of 2008 (Brenner, 2006). Currently capital prefers to sit on US\$ 13.4 trillion of negative yielding bonds rather than risk investing into production (Wigglesworth and Platt, 2016). Financialization is driving the efforts to quickly boost and capture value where long-term investment makes little sense. The finance capital privileges the short-term value maximization through economic rents over long-term investment into growth. Its logic dominates all aspects of the economy and the everyday (Brown, 2015). When it is betting on long-term changes in production, capital is rather picky and chooses to bet on technologies that are the harbingers of future automation. Those technologies might be the death knell of the social expectation of full employment, creating a reserve army of labor that will be pushed to various forms of casualized work, work on demand and workfare. The brave new world of the gig-economy awaits.

The accelerated transformation of the labor market has made adaptation through education and re-skilling difficult. Stable employment is mostly available in sectors where highly specialized technological skills are required. Yet those sectors need far less workers than the mass-manufacture required. Re-skilling is only made more difficult by the fact that austerity policies are reducing the universal provision of social support needed to allow workers to adapt to these changes: workfare, the housing crisis, cuts in education and arts have converged to make it so. The growing precarity of employment is doing away with the separation between working time and free time. The temporal decomposition is accompanied by the decomposition of workplace and living space. Fewer and fewer jobs have a defined time and place in which they are performed (Huws, 2016) and while these processes are general, the conditions of precarity diverge greatly from profession to profession, from individual to individual.

At the same time, we are living through record global warming, the seventh great extinction and the destabilization of Earth's biophysical systems. Globally, we're overshooting Earth's regenerative capacities by a factor of 1.6 (Latouche, 2009), some countries such as the US and the Gulf by a factor of 5 (Global Footprint Network, 2013). And the environmental inequalities within countries are greater than those between the countries (Piketty and Chancel, 2015). Unless by some wonder almost non-existent negative emissions technologies do materialize (Anderson and Peters, 2016), we are on a path of global destabilization of socio-environmental metabolisms that no rate of technological change can realistically mitigate (Loftus et al., 2015). Betting on settling on Mars is equally plausible.

So, if the avant-garde has at the beginning of the 20th century responded to the mutations of early modernization, in the 1960s to the integrated spectacle of the mature capitalism, where is the avant-garde in the present?

Before we try to address the question, we need to return to our two public institutions of mass education and research – the university and the library. Where is their equalizing capacity in a historical conjuncture marked by the rising levels of inequality? In the accelerating ‘race against the machine’ (Brynjolfsson and McAfee, 2012), with the advances in big data, AI and robotization threatening to obliterate almost half of the jobs in advanced economies (Frey and Osborne, 2013; McKinsey Global Institute, 2018), the university is no longer able to fulfill the promise that it can provide both the breadth and the specialization that are required to stave off the effect of a runaway technological unemployment. It is no surprise that it can’t, because this is ultimately a political question of changing the present direction of technological and social development, and not a question of institutional adaptation.

Yet while the university’s performance becomes increasingly scrutinized on the basis of what its work is contributing to the stalling economy and challenges of the labor market, on the inside it continues to be entrenched in defending hierarchies. The uncertainty created by assessment-tied funding puts academics on the defensive and wary of experimentation and resistance. Imperatives of obsessive administrative reporting, performance metrics and short-term competition for grant-based funding have, in Stefan Collini’s words, led to a ‘a cumulative reduction in the autonomy, status and influence of academics’, where ‘[s]ystemic underfunding plus competition and punitive performance-management is seen as lean efficiency and proper accountability’ (Collini, 2017: ch.2). Assessment-tied activities produce a false semblance of academic progress by creating impact indicators that are frequently incidental to the research, while at the same time demanding enormous amount of wasted effort that goes into unsuccessful application proposals (Collini, 2017). Rankings based on comparative performance metrics then allow university managers in the monetized higher education systems such as UK to pitch to prospective students how best to invest the debt they will incur in the future, in order to pay for the growing tuition fees and cost of study, making the prospect of higher education altogether less plausible for the majority in the long run (Bailey and Freedman, 2011).

Given that universities are not able to easily provide evidence that they are contributing to the stalling economy, they are asked by the funders to innovate instead. To paraphrase Marx, ‘innovate innovate that is their Moses and the

prophets'. Innovation, a popular catch-all word with the government and institutional administrators, gleaned from the entrepreneurial language of techno-capitalism, to denote interventions, measures and adaptations in the functioning of all kind of processes that promise to bring disruptive, almost punitive radical changes to the failures to respond to the disruptive challenges unleashed by that very same techno-capitalism.

For instance, higher education policy makers such as former UK universities minister David Willets, advocate that the universities themselves should use their competitive advantage, embrace the entrepreneurial opportunity in the global academic marketplace and transform themselves into startups. Universities have to become the 'equivalent of higher education Google or Amazon' (Gill, 2015). As Gary Hall reports in his 'Uberfication of the university' (2016), a survey UK vice-chancellors has detected a number of areas where universities under their command should become more disruptively innovative:

Among them are "uses of student data analytics for personalized services" (the number one innovation priority for 90 percent of vice-chancellors); "uses of technology to transform learning experiences" (massive open online courses [MOOCs]; mobile virtual learning environments [VLEs]; "anytime-anywhere learning" (leading to the demise of lectures and timetables); and "student-driven flexible study modes" ("multiple entry points" into programs, bringing about an end to the traditional academic year). (Hall, 2016: n.p.)

Universities in the UK are thus pushed to constantly create trendy programs, 'publish or perish', perform and assess, hire and fire, find new sources of funders, find students, find interest of parents, vie for public attention, produce evidence of immediate impact. All we can expect from such attempts to transform universities into Googles and Amazons, is that we will end up with an oligopoly of a few prestige brands franchised all around the world – if the strategy proves 'successful', or – if not – just with a world in which universities go on faking disruptive innovations while waiting for some miracle to happen and redeem them in the eyes of neoliberal policy makers.

These are all short-term strategies modeled on the quick extraction of value that Wendy Brown calls the 'financialization of everything' (Brown, 2015: 70). However, the best in the game of such quick rent-seeking are, as always, those universities that carry the most prestige, have the most assets and need to be least afraid for their future, whereas the rest are simply struggling in the prospect of reduced funding.

Those universities in 'peripheral' countries, which rarely show up anywhere near the top of the global rankings, are in a particularly disadvantaged situation. As Danijela Dolenc has calculated:

[T]he whole region [of Western Balkans] invests approximately EUR 495 million in research and development per year, which is equivalent of one (second-largest) US university. Current levels of investment cannot have a meaningful impact on the current model of economic development ... (Dolenec, 2016: 34)

So, these universities don't have much capacity to capture value in the global marketplace. In fact, their work in educating masses matters less to their economies, as these economies are largely based on selling cheap low-skilled labor. So, their public funders leave them in their underfunded torpor to improvise their way through education and research processes. It is these institutions that depend the most on the Library Genesis and Science Hubs of this world. If we look at the download data of Library Genesis, as has Balasz Bodó (2015), we can discern a clear pattern that the users in the rich economies use these shadow libraries to find publications that are not available in the digital form or are pay-walled, while the users in the developing economies use them to find publications they don't have access to in print to start with.

As for libraries, in the shift to the digital they were denied the right to provide access that has now radically expanded (Sullivan, 2012), so they are losing their central position in the dissemination and access to knowledge. The decades of retrenchment in social security, unemployment support, social housing, arts and education have made libraries, with their resources open to broad communities, into a stand-in for failing welfare institutions (Mattern, 2014). But with the onset of 2008 crisis, libraries have been subjected to brutal cuts, affecting their ability to stay open, service their communities and in particular the marginalized groups and children (Kean, 2017). Just as universities, libraries have thus seen their capacity to address structural exclusions of marginalized groups and provide support to those affected by precarity compromised.

Libraries thus find themselves struggling to provide legitimation for the support they receive. So they re-invent and re-brand themselves as 'third places' of socialization for the elderly and the youth (Engel-Johnson, 2017), spaces where the unemployed can find assistance with their job applications and the socially marginalized a public location with no economic pressures. All these functions, however, are not something that public libraries didn't do before, along with what was their primary function – providing universal access to all written knowledge, in which they are however nowadays – in the digital economy – severely limited.

All that innovation that universities and libraries are undertaking seems to be little innovation at all. It is rather a game of hide and seek, behind which these institutions are struggling to maintain their substantive mission and operation. So, what are we to make of this position of compromised institutional agency? In



a situation where progressive social agency no longer seems to be within the remit of these institutions? The fact is that with the growing crisis of precarity and social reproduction, where fewer and fewer have time from casualized work to study, convenience to do so at home and financial prospects to incur a debt by enrolling in a university, these institutions should, could and sometimes do provide sustaining social arrangements and resources – not only to academics, students and patrons, but also to a general public – that can reduce economic imperatives and diminish insecurities. While doing this they also create institutional preconditions that, unlike business-cycle driven institutions, can support the structural repair that the present double crisis demands.

If the historical avant-garde was birthing of the new, nowadays repeating its radicalism would seem to imply cutting through the fog of innovation. Its radicalism would be to inhabit the non-new. The non-new that persists and in the background sustains the broken social and technological world that the techno-capitalist innovation wants to disrupt and transcend. Bullshit jobs and simulating busyness at work are correlative of the fact that free time and the abundance of social wealth created by growing productivity have paradoxically resulted in underemployment and inequality. We're at a juncture: accelerated crisis of capitalism, accelerated climate change, accelerated erosion of political systems are trajectories that leave little space for repair. The full surrender of technological development into the hands of the market forces leaves even less.

The avant-garde radicalism nowadays is standing with the social institutions that permit, speaking with Lauren Berlant, the 'loose convergence' of social heterogeneity needed to construct 'transitional form[s]' (2016: 394). Unlike the solutionism of techno-communities (Morozov, 2013) that tend to reduce uncertainty of situations and conflict of values, social institutions permit negotiating conflict and complexity in the situations of crisis that Gary Ravetz calls postnormal – situations 'where facts are uncertain, values in dispute, stakes high and decisions urgent' (Ravetz, 2003: 75). On that view, libraries and universities as social infrastructures, provide a chance for retardation and slowdown, and a capacity for collective disobedience. Against the radicalizing exclusions of property and labor market, they can lower insecurities and disobediently demand universal access to knowledge and education, a mass intellectuality and autonomous critical pedagogy that increasingly seems a thing of the past. Against the imposition to translate quality into metrics and capture short-term values through assessment, they can resist the game of simulation. While the playful simulation of reality was a thing in 1967, in 2017 it is no longer. Libraries and universities can stop faking 'innovativity', 'efficiency' and 'utility'.

## Custodians.online, the second letter

On 30 November, 2016 a second missive was published by Custodians.online (2016). On the twentieth anniversary of UbuWeb, ‘the single-most important archive of avant-garde and outsider art’ on the Internet, the drafters of the letter followed up on their initial call to acts of care for the infrastructure of our shared knowledge commons that the first letter ended with. The second letter was a gift card to Ubu, announcing that it had received two mirrors, i.e. exact copies of the Ubu website accessible from servers in two different locations – one in Iceland, supported by a cultural activist community, and another one in Switzerland, supported by a major art school – whose maintenance should ensure that Ubu remains accessible even if its primary server is taken down.

McKenzie Wark in their text on UbuWeb poignantly observes that shadow libraries are:

tactics for intervening in three kinds of practices, those of the art-world, of publishing and of scholarship. They respond to the current institutional, technical and political-economic constraints of all three. As it says in the *Communist Manifesto*, the forces for social change are those that ask the *property* question. While *détournement* was a sufficient answer to that question in the era of the culture industries, they try to formulate, in their modest way, a suitable tactic for answering the property question in the era of the vulture industries. (Wark, 2015: 116)

As we claimed, the avant-garde radicalism can be recuperated for the present through the gestures of disobedience, deceleration and demands for inclusiveness. Ubu already hints toward such recuperation on three coordinates: 1) practiced opposition to the regime of intellectual property, 2) transformative use of old technologies, and 3) a promise of universal access to knowledge and education, helping to foster mass intellectuality and critical pedagogy.

The first Custodians.online letter was drafted to voice the need for a collective disobedience. Standing up openly in public for the illegal acts of piracy, which are, however, made legitimate by the fact that students, academics and researchers across the world massively contribute and resort to pirate repositories of scholarly texts, holds the potential to overturn the noxious pattern of court cases that have consistently lead to such resources being shut down.

However, the acts of disobedience need not be made explicit in the language of radicalism. For a public institution, disobedience can also be doing what should not be done: long-term commitment to maintenance – for instance, of a mirror – while dealing institutionally with all the conflicts and challenges that doing this publicly entails.

The second Custodians.online letter was drafted to suggest that opportunity:

In a world of money-crazed start-ups and surveillance capitalism, copyright madness and abuse, Ubu represents an island of culture. It shows what a single person, with dedication and focus, can achieve. There are lessons to be drawn from this:

- 1) Keep it simple and avoid constant technology updates. Ubu is plain HTML, written in a text-editor.
- 2) Even a website should function offline. One should be able to take the hard disk and run. Avoid the cloud – computers of people you don't know and who don't care about you.
- 3) Don't ask for permission. You would have to wait forever, turning yourself into an accountant and a lawyer.
- 4) Don't promise anything. Do it the way you like it.
- 5) You don't need search engines. Rely on word-of-mouth and direct linking to slowly build your public. You don't need complicated protocols, digital currencies or other proxies. You need people who care.
- 6) Everything is temporary, even after 20 years. Servers crash, disks die, life changes and shit happens. Care and redundancy is the only path to longevity. Care and redundancy is the reason why we decided to run mirrors. We care and we want this resource to exist... should shit happen, this multiplicity of locations and institutions might come in handy. We will see. Find your Ubu. It's time to mirror each other in solidarity. (Custodians.online, 2016)

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## **the authors**

Marcell Mars is a research associate at the Centre for Postdigital Cultures at Coventry University (UK). Mars is one of the founders of Multimedia Institute/MAMA in Zagreb. His research 'Ruling Class Studies', started at the Jan van Eyck Academy (2011), examines state-of-the-art digital innovation, adaptation, and intelligence created by corporations such as Google, Amazon, Facebook, and eBay. He is a doctoral student at Digital Cultures Research Lab at Leuphana University, writing a thesis on 'Foreshadowed Libraries'. Together with Tomislav Medak he founded Memory of the World/Public Library, for which he develops and maintains software infrastructure.

Email: [ki.be@rkom.uni.st](mailto:ki.be@rkom.uni.st)

Tomislav Medak is a doctoral student at the Centre for Postdigital Cultures at Coventry University. Medak is a member of the theory and publishing team of the Multimedia Institute/MAMA in Zagreb, as well as an amateur librarian for the Memory of the World/Public Library project. His research focuses on technologies, capitalist development, and postcapitalist transition, particularly on economies of intellectual property and unevenness of technoscience. He authored two short volumes: 'The Hard Matter of Abstraction—A Guidebook to Domination by Abstraction' and 'Shit Tech for A Shitty World'. Together with Marcell Mars he co-edited 'Public Library' and 'Guerrilla Open Access'.

Email: [tom@miz.hr](mailto:tom@miz.hr)