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## **Information biopolitics: Copyright Law and the Regulation of Life in the Network Society**

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**Abstract:** Online settings illustrate sharply our passing into the information age in the truest manner, with the development of culture and social relationships being mediated exclusively via ‘palpable’ digital information artefacts, like texts, images, videos, webpage links and social networking accounts. Suspended between its intangible nature and its various ‘tangible’ expressions, and according to Drahos constituting ‘the daily lifeblood of human agents as communicating beings’, information regulated under familiar legal conceptions of property suggests arguably ‘biopolitical’ developments: the hold, which one exerts on information items, extends to administering essentially life in its social and cultural aspects. The proprietisation of information in copyright laws authorises long-term exercises of power that, in future, computer-mediated societies, could both undercut circulation of vital knowledge and structure the public’s participation in culture, thus interfering effectively with the development of personal, social and political identities. Such concerns appear more plausible in view of the increase of corporate power across online settings, contested between concentrations of copyright-intensive industries and web hosting giants, and following debates over the impacts of laws like the recently introduced EU Directive 2019/790 (Directive on Copyright in the Digital Single Market). By reviewing copyright law developments, this paper reflects on Foucauldian understandings of biopolitics and media ecology theoretical interpretations, to comment critically on the regulation of information and online public interaction spaces.

### **1 Introduction**

The 1982 film *Blade Runner* features a trope, common within late 20th century science fiction, projecting dystopian concerns about corporatisation. Beyond the film’s dramatic opening sequences of flying cars navigating through skylines of fire-spitting chimneys, or the suffocating setting of congested L.A. streets and neon-lit urban decay, the world of *Blade Runner* is also one where powerful corporations operate from the top of the economic, social and political pyramid. This is a recurring theme in other seminal films of that time, such as *Alien* (the previous work of the same director, Ridley Scott, 1978) and *Robocop* (1987), and also in literature, like William Gibson’s *Neuromancer* (1984). Reflecting on the rise of the multinational corporation under the economic liberalisation policies of the Reagan era, science fiction projected fears of capitalist futures gone wrong

(Kerman 1997). Stereotypically depicting profit-making companies that, managed by greedy, cynical executives, show little - if any - regard towards human life and values, such works essentially issued warnings against a level of dehumanisation deeper than that envisaged in post-human nightmares of over-technologised societies: a future where the duty to commodified socio-economic structures severely disrupts human feelings and bonds (Byers 1987).

Whilst the future predicted in *Blade Runner* (set in late 2019) never arrived as visualised on the silver screen, the film's rich and multi-layered themes retain an enduring quality, mirroring ongoing concerns about humanity's development and our relationship with technology. Open to interpretations, they have since early become the object of multidisciplinary study and contemplations (for example, see Bruno 1987; Williams 1988), expanding on discussions about ethics, identity, humanity, cityscapes, AI and consciousness, to name only few (Brooker 2005; Shanahan 2014; Flisfeder 2017). Critical analysis has summoned *Blade Runner*'s subtle conceptualisations of corporate power and capitalism narratives to evaluate economic globalisation and its possible impacts at the local and international cultural levels (Jones 1998, 2000). This article will use the same starting point to form a critique of intellectual property (IP) law. Several plot and visual elements of *Blade Runner* point directly to IP and corporate power challenges: the corporate masters' right of life and death over synthetic, yet sentient humanoids, raises questions about patent law, its morality and limits; or, the imposing bright images of corporate billboards which as if suspended mid-air loom over life on the city streets below, evoke Coombe's (1998) extended analysis and Klein's (2000) influential criticism of the culturally pervasive power of omnipresent brands and trademarks. We are instead taking the inquiry into corporate power to a different direction, by narrowing down its ultimate field of reference to copyright and online settings.

As a matter of fact, that cinematic future which has not come to pass is now reinstated, as life in the congested, multicultural cityscape, integrating the merging of humanity with multifunctional automation and diverse AI entities, is already projected in the immersion of our daily social, economic, political and cultural lives within the vast structural discordance of intertwining digital experiences that constitute the Internet. Similar to *Blade Runner*, corporations dominate the online landscape, as we engage with the network through the use of applications and platforms like Amazon, Google, Facebook, Outlook, PayPal, Instagram, eBay, and so on; and similar to the protagonists of *Blade Runner* and

*Alien*, who are not fully aware of 'the extent to which their lives are governed by their performance in the corporate world' (Williams 2011), we move on with our online existences oblivious to the power currents within which we are caught, perhaps because we misread our freedom and autonomy where conventional State authorities usually have limited online presence. Private and public lives online are made out of digital information: they are continually and cumulatively constructed onscreen through the dealings of individuals and groups with visible and invisible digital information flows. However, this also subjects online life to the potential control of entities – commonly corporate - that transfer, host or own digital information, while, all the same, the content or activity information which online participants subsequently produce can, under such terms of control, be appropriated away from them. We may, therefore, discern long-term exercises of power that, in future, computer-mediated societies, could both undercut the circulation of vital knowledges, and curtail the public's participation in culture, thus interfering effectively with the development of personal, social and political identities.

The following theoretical discussion will first frame a reading of the network society, responding in a sense to the figurative revival of *Blade Runner's* urban setting within contemporary online contexts. The use of metaphors such as the cityscape and its organic dimensions, intersections of life and control across information flows, and deployments of the public and the private within digital spaces, exhibits the biological dynamics within network society configurations, and through representations of communications spatiality it connotes connections to media ecology perspectives. Such a theoretical approach will serve to evaluate and then restate the significance of online information and content in terms of digitally immersed human lives. Building on notions of biology and life, the discussion will then bring the highlighted online interplay of life and control under the scope of Foucault's concepts of biopolitics and biopower. Bringing into play these Foucauldian ideas will lead to more direct considerations about the development of transnational informational / network capitalism (Fuchs 2008), reflecting on the biopolitical interpretations of Hardt and Negri. This discussion will conclude with an anticipated reflection on copyright law.

## **2 Life and the Medium**

In both its conceptual and practical dimensions, the Internet has revolutionised the well-known 'global village' metaphor. Originally coined by communications philosopher

Marshal McLuhan (1962), 'global village' describes a world linked together via high-speed communication technologies, which effectively accelerate social relations and human organisation by breaking down 'barriers between the local and the global, private and public, proximity and distance' (Comor 2013). Much of the technological and social innovation envisaged by McLuhan has been injected already into our shared communications landscape by the progressive development of the 'network of networks' era. This is an ongoing development, entailing an endless multitude of successively layered interactive user interfaces, utilised in decentralised, instant two-way information and communication exchanges, within a seemingly infinite universe of online platforms, services and textual, visual or/and aural content. It suffices to highlight the transformative role that the Internet has evidently played in the advancement of contemporary societies, no matter whether it is perceived as a medium of mass media or a mass medium itself (Morris and Ogan 1996). In this account, instead, it is important to take a few steps back and to consider, beyond the various uses of the Internet, the impacts on human experience that communications in general incubate. It is equally important to examine the relationship between media and society performing throughout the ages as a pylon in the transformation of humanity: of personal relationships, communal lives, culture, politics and, fundamentally, of self and group awareness.

Around the turn of the twentieth century and throughout the '00s, prominent legal and tech journalistic commentators (explored in Section 3 below) opposed openly the great changes in copyright law that were taking place in response to digital technology challenges. They mainly argued against radical interferences of copyright exclusivities with perceived 'new' developments in the relationship between humanity and knowledge, in the operation of information as content in society, and in the creative production of culture, which were visibly emerging from online settings and shared digital experiences. Arguably, this line of critique could have gone into greater depth, had it aligned its narrative more attentively (or at any rate more clearly) with already existing theoretical frameworks in media communications and cultural studies. In essence, the Internet and new media as such may be analysed as instances only within a broader, universal media communications paradigm. From this standpoint, many of the challenges new media have presented us with are not as fundamental as their innovative form (either technology or user interface) might have led us to believe. Likewise, aspects of copyright regulation that are now contested as potentially harmful to emerging online creativity, networked communities or interactive cultures, might

have all along been impinging upon processes of social and cultural development, which have otherwise been embedded for a very long time in the ways humans perceive their surrounding world and communicate. Yet at an earlier point such processes were not so directly discernible to comprehend and evaluate, until the coming to mainstream of Internet communications made them more palpable; for example, the public's active engagement with mass culture in mediated societies, where cultural consumers discuss and organise themselves around existing media artefacts, may be seen itself as a separate form of cultural and knowledge production (see Jenkins 2006).

Castells defines Network Society as 'the social structure of the Information age' (2015, x): 'the organizational arrangements of humans in relations of production, consumption, reproduction, experience, and power expressed in meaningful communication coded by culture', as made of 'networks powered by microelectronics-based information and communication technologies' (2004, 3). This definition captures an enormously important dynamic for Internet Communication technologies to become core facilitator for the organisation of life. Human life and technology meld together, the latter being appropriated by the former in full, yet also becoming the space where humanity discovers new capabilities and potentialities to redefine itself. This appreciation of online setups alludes to the expanded theoretical imagery of McLuhan, which provided the foundation for the media ecology field of studies and proposed a powerful blueprint for the concept of 'media' and how it extends humanity. This section will focus on this specific theoretical perspective.

McLuhan realised that a technology qualifies as media not by virtue of achieving communication merely by way of imparting or exchanging information, knowledge and ideas perceived by the senses. Rather his work paid attention to the structural effects of media (Gordon 2010), to the point of using metaphorical language to define as such those creations, techniques and abstract technologies which transform into extensions and amplifications of ourselves, of our physical human bodies and minds. This definition includes conventional comprehensions of media, like the radio, television and the press, but also the print, the telegraph, even language – itself an abstract technology.

## **2.1 The medium as extension of the self**

From physical understandings of artificial limbs and enhanced organs (Niedernhuber, Barone and Lenggenhager 2018; Beckerle, Castellini and Lenggenhager 2019) to abstract contemplations about humanity's developing relationship with its technical and mechanical

means, the notion of technology as extension of human organisms has evoked multiple complex meditations on the transforming processes of self-construction and self-representation, of human transcendence (Haraway 1991; Hayles 1999; Kurzweil 2005; Braidotti 2013), as well as on the social and cultural dimensions of prosthesis, all the way down through industrialisation (Seltzer 1991) and digitalisation (Elwell 2011; Tajiri 2007; Hayles 2005). McLuhan's approach, considered within a strand of so called 'extension theories' (Brey 2000; Lawson 2010), primarily delivers a paradigm of extending human capability: that is, neither merely supplementing it nor repairing its potential prior loss.<sup>1</sup> McLuhan seems to view amplification and acceleration in comparison with what was taken to be up to a point in time the standard relationship between human organisms and their environment. Technology transforms that relationship by transforming humanity.

This is also why McLuhan addresses language as the first technology - in his words, '[l]anguage does for intelligence what the wheel does for the feet and the body' (1994, 79). Consider the human being before the invention of language, experiencing the world, attempting to reason with it directly as images, sounds, smells and textures and then struggling to convey this first-hand experience to others. Language mediates. It allowed humans to compartmentalise their life experiences and perception of the environment through the creation of words, translating whatever the senses receive into complex linguistic symbols of generic and specific meanings (McLuhan 1962). Words perform as 'a kind of information retrieval that can range over the total environment and experience at high speed'; a 'technology of explicitness' that translates 'experience into our uttered or outered senses', systematises, evokes and retrieves immediately an impression of the world 'at any instant' (McLuhan 1994, 57).

The crucial difference of being able to communicate directly to another 'be careful, a hungry predatory beast is coming running behind me and is now at the edge of the forest' instead of 'hurry up, there are deer now at the edge of the forest to hunt', and be fully and immediately understood, was a revolution.

Language was the first technology, the first medium to allow humans to approach their environment and grasp it afresh, recalibrating their experience of it, by creating and installing words and expressions in order to generate shared meanings. Language is, in this

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<sup>1</sup> Yet it also links with disability discourses, providing a plausible theoretical framework to explore relevant practical applications (for example, see Ng 2017).

sense, a technology that enables humans first to internalise in their heads their experience of life, by (re)ordering it through linguistic symbols and structures; and, second, to reach out to other people, by translating their personal experience of life and emotions – essentially, themselves - into communicable expression. Through language we extend ourselves, as it reorganises the world and our awareness of it into information that we can relay to and receive from others (McLuhan 1959; 1962). We unite around the shared meanings which as groups we commonly invest into language, and, all the same, fundamental differences in language may divide us (as in the myth of the Tower of Babel) or cut off minorities and individuals from the community. With this in mind, we may dare to add that language constitutes perhaps the ultimate communications technology: the ultimate medium.

## **2.2 ‘The medium is the message’**

McLuhan expanded on a rich variety of technologies to demonstrate in depth and, at the same time, to round up the breadth of his ideas’ conceptual core, laying it down mainly across his two most important works, *The Guttenberg Galaxy* (1962) and *Understanding Media* (1994). We are reflecting here on these ideas mainly through the case of language, since this makes fundamentally explicit and accessible the paradigm of human societies and culture melding with media, which underlies the media ecology perspective. The introduction of language presents a model for illustrating most profoundly the notion of media as human extensions and how deeply related we become to them, once widespread use of such technologies has been employed. In this respect, we may further draw specific points to carry forward.

### *2.2.1 Medium ‘diffusion’ & Culture*

First, the same way language ‘almost entirely patterns the character of what is thought, felt, or said by those using it’ (McLuhan 1959, 340), mass media install new designs for universal interconnectivity at a deeper structural level effectively rewiring the development and externalisation of collective and individual human consciousness, our perception of how we exist, move into and connect with the world. In this sense, introduction of spoken language, of the printing press, of the telegraph, of the telephone and so on, each one created, from the perspective of sensory awareness it engages with, a new reality, wherein societal and cultural experience and organisation were radically transformed. This is the meaning of McLuhan’s famous aphorism in relation to communications that ‘the

medium is the message' and not its content or its uses. The medium 'shapes and controls the scale and form of human association and action' (1994, 9). For instance, a particular television programme alone does not incite itself violence or alter public attitudes, if not for the power of the television medium to stimulate human senses, and society's widespread and long-term exposure to it, having permeated our institutions and cultural structures (1994). The degree of individual and collective embeddedness in a medium differs depending on the sensory range that the technology achieves, including its capacities in conveying and stimulating emotional depth and breadth. It follows that new media and networks featuring increased levels of immersion coupled with portability, hyperconnectivity and interactive immediacy achieve such result far more easily (Logan 2016).

In light of McLuhan (1994)'s remarks on speech, we could further note that, whilst a medium achieves the technical extension of human faculties, it may diminish them at the same time. This is because either a given medium reproduces more intense focus on particular stimuli, or because our extensive occupation with the medium frames and thus limits accordingly our skills and capabilities, or both. Examples include differences and incompatibilities between languages, but also issues of context transfers regarding media and digital literacy competences (Livingstone 2004; Huerta and Sandoval-Almazán 2007; Lankshear and Knobel 2008; Buckingham 2010; Meyers, Erickson, and Small 2013) and considerations about Internet impacts on human cognition and development (Firth et al. 2019).

Additionally, systematically increased embeddedness of collective and individual consciousness within a society entails increased cultural, economic and political integration with the medium. Culture and its practices diffuse into and across the medium, whilst, in turn, the medium/technology pervades society's cultural development, to the point of structurally underlying it. We may consider as examples the development of mass culture since the 1950s next to that of television entertainment, or the social networking boom of the last fifteen years. This mutual saturation of mass media and culture into each other makes impossible to conceive them operating separately in any possible future.

### *2.2.2 Medium as Community*

A second key point to highlight is the meaning of 'communication', defined not by the act of transmission but by the performance of bringing people together. As the term historically - that is before transforming in the electric age into 'information movement' – has

had extensive use in relation to road networks, sea routes and so on (McLuhan 1994), 'communication' denotes connection, association and union. Therefore, the communication medium of language functions primarily as a facilitator of a shared space of symbols and meanings for language users to participate in communal understanding. Likewise, mass media as means for extending human consciousness imply participation of the public, and the term 'mass' indicates not the size of audiences rather than factually massive involvement with the media.

Even passive engagement with media content connotes participation, inviting groups and individuals to get involved through their efforts to extract and determine meanings. With contemporary mass media, these meanings vary, from mere perceptions of corporate images in advertising or of the media organisations themselves (like news publishers or music labels), to derivative group interpretations about communal life, made either under the encouragement or even manipulation of the medium or in critical evaluation of it and its message.

Despite giving the impression of delivering social fragmentation and isolation, 20th century electric media have arguably resuscitated humanity's long-lost tribal sensitivities and exclusive involvement in kinship webs, by building within communication spaces common reference fields that bring people together – for example, the shared radio broadcast or the nationwide television programme. Considering media to be technologies of explicitness that have the 'power to translate experience into new forms' (McLuhan 1994), electricity and automation enhanced enormously the involvement depth offer for private and public awareness, by enabling instantaneous information exchanges and immediacy.

For McLuhan, electric media realised the Age of Information as they generate instantly and constantly 'a total field of interacting events', wherein all humanity participates. He further drew attention to the strong biological undertones in the electric media's tendency to 'create a kind of organic interdependence' among all political, commercial and cultural institutions of society (1994), to the point of noting that his contemporary biologists would commonly describe in their analyses physical organisms as communication networks. Again, electronic media and the network society are infinitely more powerful in this respect.

### *2.2.3 Medium as language*

The final key point arises from the consideration that languages as ‘human artefacts, collective products of human skill and need’ qualify for being regarded as ‘mass media’, media themselves constitute languages. As such, they demonstrate similar structural dynamics to languages in developing as communication spaces and are predicated upon participation, rather than on functions of contemplation, reference and classification (McLuhan 1959).

### **2.3 Summary - Content**

We may now apply the above reflections regarding the deeper relation between humanity, its cultural development(s), and media, onto the contemporary network society setup: (i) as humanity integrates into the Internet and online settings, our individual and collective consciousness is being extended and at the same time is being conditioned by these media; as a result, the latter give shape to our cultural development; (ii) the online medium is predominantly a space of universal social and cultural association; and (iii) it is our latest mass language.

What is, then, the role of content under such a conceptualisation? Where media function as environments and systems, content is what happens within such systems. This understanding does not diminish the importance of communicated information, which in return may or not affect its resident system (Strate 2008). Equally, ‘content’ also denotes the content of the embedded, mediated human culture(s), which coexists with other types of information transmitted within and across the technology of the medium. The concept of ‘remediation’ in media ecology theories discusses the ‘representation of one medium in another’ as a defining characteristic of digital media (Bolter and Grusin 1999, 145); in this sense, computer networks essentially remediate into website and app content ‘just about every other medium in existence’, including ‘written documents, books, magazines and newspapers, paintings and photographs, sound recordings and telephone conversations, as well as radio, movies, and television’ (Strate 2008, 131-132).

## **3 Information**

Justifying his preference to the term ‘information’ instead of ‘intangible’ or ‘abstract objects’ for discussing IP, Drahos explains that ‘information is the daily lifeblood of human

agents as communicating beings' and highlights 'the pervasive effect that intellectual property rights in information can have on the daily lives of people' (1996, 171). This alludes to potential negative impacts of patentabilities of genetic material, excessive trademark protections or the socio-cultural dominance of commercial brands. Similarly, by generally replacing 'content' with 'information', the present discussion will proceed with making a larger scale argument about the impacts of copyright law on the network society. This will build on the idea that humanity and its cultures are being amalgamated with the online network medium, as argued in the previous section. The medium runs on information, of which content, in the sense of mediated transmission and copyrightable material, is only a species. We need to start thinking of content as part of the information flows that are the lifeblood of the hybrid - to paraphrase Haraway - of technology and (networked) humanity. Limitations and power-holds over information that copyright laws entrench are considerably impactful upon a world that is, in more than one ways, forced to be embedded in online technologies; to normalise daily life and its institutions around it.

### **3.1 Reviewing Convergence Culture**

Three key phenomena across the network society - media convergence, participatory culture and collective intelligence – underpin the concept of convergence culture in Jenkins' account of the same name (2006). This points to the complicated relationship between corporate content production and interconnected consumption and how the two converge. Through mass online community formation processes, such as gossiping, fandom, knowledge communities (like thematic wikis) and social media trending, cultural consumption (alluding to McLuhan's notions of tribalisation around the medium) expands upon mass production of derivative content (Jenkins 2006) and, further on, of cultural and social capitals (Bourdieu 1986). Culture (and socialisation to that end) as a meaning-making process would always draw from existing symbols and shared knowledge reference pools (Coombe 1998). Communication is conducted via references to language, landmarks, mythologies, texts, news and melodies; social participants interpret and recycle this material, around which social continuity is established, associations take shape and culture moves on. Folklore and culture would play that role of common reference pool, until gradually displaced by industrial production of commercialised entertainment (Jenkins 2006). Regarding smaller, ethnic or national traditional communities, recognition of the inherent social function of culture and the need to preserve the integrity of its relationship

with populations is articulated in cultural heritage protection laws.<sup>2</sup> With Western societies becoming more complex, the inevitable industrialisation and mass commercialisation of cultural production upset this schema, saturating the cultural landscape, eventually defining it (Lange and Powell 2009). Yet, as Benkler (2006) notes, the network society challenged the market-based model of cultural production, forwarding a new folk culture through the users' engagement with knowledge and content.

ICTs contributed to that by itemising information onscreen. Social development and cultural processes become visible, palpable through online service account activities and records, as well as through data traces. In fact, online activities produce data – produce new information. Content per se becomes malleable, available to manipulate, interactive and 'transferable'. Images, texts, computer code, they are all reproduced, embedded in part or in full in other online artefacts to then be stored, forwarded or shared. In practical terms, copying and unauthorised reproduction form necessary operation and routinely part of everyday engagement with (and in) online communications, from automatically made temporary copies, to sharing fragments of information – like a piece of text – images and tunes, to even reading online (Boyle 2008).

The second important feature of this setting lies in the online medium's capacity to construct a new communications language out of relations between links, pictures, video files and social networking software functions. This is an aspect of the already examined conceptual power of the medium as a language. Most characteristically, the converge culture experience frames the capacity of networked, digitally bred generations to speak (Lessig 2008).

### **3.2 The Copyright Setting**

At the same time, the spread of digital technologies, enabling mass copying and distribution of music and films, has been largely associated with the big changes in the regulation of copyright law in the mid-1990s, including the TRIPS Agreement<sup>3</sup> as well as the

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<sup>2</sup> For example, see preamble of the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage.

<sup>3</sup> Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization, signed in Marrakesh, Morocco on 15 April 1994.

two WIPO Treaties.<sup>4</sup> Drafting of laws like TRIPS and the US Digital Millennium Copyright Act (DMCA) 1998 has been contested for intense backstage lobbying and pressure from corporate IP rightsholders and, eventually, for serving the industry's big players (Litman 2001; Drahos and Braithwaite 2002). Following the legislative trend, the EU perspective<sup>5</sup> developed economic-utilitarian reflexes, demonstrated greater concern about being industrially competitive, and arguably went further than the DMCA with anti-circumvention rules to thus restrict fair uses in digital environments. It also left the harmonisation of authors' moral rights out of the Directive framework<sup>6</sup> (Spinello and Bottis 2009). According to its critics, the resulting legal landscape for copyright, which has spread globally across most WTO associated regimes, is characterised by extending copyright terms (Lessig 2004), it criminalises end-users for infringements belonging rather to the private law sphere (Drahos and Braithwaite 2002), and minimises the role of copyright limitations from legal priority to fair use defences in litigation (Lange and Powell 2009). Other criticisms include an arguable turn from earlier copyright models, which had served the public domain by 'defining copyright ownership in terms of narrow privileges' only (Drahos and Braithwaite 2002, 186); a manifested tendency towards privatising the intangible commons and the erosion of the public domain, branded the Second Enclosure Movement (taking after England's common land enclosures, between the 14th and 19th centuries) (Boyle 2003); and, generally, fundamental limits being imposed on free expression, access to knowledge and creativity (Lessig 2004; Lange and Powell 2009).<sup>7</sup>

Corporate production of culture, knowledge and communications content plays key role in what has been addressed as the 'battle over the institutional ecology of the digital environment' (Benkler 2006, 2). As human culture evolves around - and the medium itself encourages - the recycling of information in its various forms, online users habitually engage with existing content and references to it. With corporate brands working

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<sup>4</sup> WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty, both adopted in Geneva on December 20, 1996

<sup>5</sup> Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society ('InfoSoc Directive').

<sup>6</sup> These were left, however, at the discretion of national legislators.

<sup>7</sup> Spinello and Bottis (2009) engage in a detailed analysis of the relevant critical scholarship as it developed up to the late '00s.

strategically to establish market dominance in cultural consumption, their omnipresent commercial symbols permeating culture (Coombe 1998), and, apparently, cultural content production becoming increasingly concentrated within strong oligopolies (Lee 2019), copyright exclusivities raise concerns about extensive social and cultural control by small numbers of corporate entities.

The implications of the above situation can be more clearly understood with reference to some concrete examples of how the power conferred by copyright law is exercised. As previously indicated, in terms of black-letter law ordinary uses of online creative works count as copyright infringements (Lessig 2008). Where more transformative engagements with content may essentially be of little economic concern, copyright rightsholders have on many occasions appeared protectionist, perhaps because such content is increasingly susceptible to widespread unauthorised appropriation and they are afraid of habitual online uses progressing into entitlements (Lange and Powell 2009). Copyright law arguably encourages rightsholders to disassociate their cultural production from notions of public responsibility (Sun 2013), while in several settings it has framed the context of exception within rather formal contexts; for example, in the UK fair dealings were mainly introduced in relation to research, study, teaching, archiving, disability and related commercial practices.<sup>8</sup> Nevertheless, parodies, forming since early key part of cultural and political online expression through the manipulation of creative content, now count as an established copyright exception in many settings (including the UK).<sup>9</sup> Largely, it is considered that such conflicts over derivative user-generated creations, like fan-works, Internet memes and so on, should be resolved successfully when appealing directly to existing copyright exceptions, with some setups, like the US fair-use doctrine, offering perhaps greater flexibility in favour of users (and perhaps less certainty) (Hetcher 2009; Patel 2013; Bonetto 2018).

### **3.3 The Medium becomes the problem**

The real thorn in the content producers' side has arguably been otherwise non-commercial exchanges of derivative content, taking place on online services that profit

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<sup>8</sup> See CDPA 1988 ss 29, 29A, 30, 31, 31A-44A.

<sup>9</sup> See Article 5(2)(k) Directive 2001/29/EC, engaged with in C-201/13 *Johan Deckmyn and Vrijheidsfonds VZW v Helena Vandersteen and Others* [2014] ECDR 21; also, UK CDPA 1988 s.30A.

through subscriptions or practices like online advertising. This developed early into a legal argument for interfering with unwelcome content circulation, solidified within laws that outline liability for service providers who host relevant material and have knowledge of potential infringement.<sup>10</sup>

Such laws have established 'notice and take down' mechanisms, compelling content hosts to follow action against material uploaded by users on their services, once they have received complaints from owners of creative works. Dedicated, cheap systems have enabled complainants to automate both processes of searching online for infringements and of sending out notices en masse. Studies of complaint mechanisms have indicated small numbers of complainants (including corporate rightsholders and specialised agencies in pursuing copyright infringers), overwhelming processes for recipients, notices generated by highly centralised models of operation that frequently result in misuse (for example, repetitive auto-generated complaint notices), overall processes that are overwhelming for their recipients and filtering not always transparent (Ibosiola et al. 2019). It follows that general concerns include the uncontrollable, biased conduct of the process by oligopolies of rightsholders, the reluctance of service providers to investigate the accuracy every single complaint received or to be exposed to expensive litigation, and, eventually, the chilling effects on expression, where infringement might not always be confirmed (Seltzer 2010; Urban, Karaganis and Schofield 2017). In Europe, the above also point to potential interferences with human rights under the European Convention of Human Rights (Kuczerawy 2015). The latest EU legislative initiative<sup>11</sup> attempts to address such concerns, encompassing also years of developing deliberations on the role of online service providers; it will be briefly addressed in the conclusions section.

At this point, however, one is also alerted to power structures originating in the online setting and directing humanity into action, as well as shaping its development. Search

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<sup>10</sup> For example, US DMCA 1998, Title II: Online Copyright Infringement Liability Limitation, Section 512; Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce'), Article 14.

<sup>11</sup> Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (Directive on Copyright in the Digital Single Market).

engines, video platforms, social media, algorithms – these are key elements of a made-up, neither natural nor random structure. As much as providing the ground for challenging - perhaps excessive - copyright monopolies, they also condition cultural life in their own fashion. They also belong to the same larger economic and political institutional order within the network society, as previously defined.

This brings the discussion closer to its most challenging aspect. Recall the earlier discussion, following McLuhan, of a biological interpretation of the online medium having symbiotically become one with humanity. Echoing cybernetic conceptualisations and with an eye on his reasoning, we could remark ‘change the medium and you change the organism’. This would be no fictional allusion to the spirit of *Blade Runner*: it involves a reading of humanity’s actual institutional surroundings within the network society. Integration with the electronic medium suggests that laws, economic interests, technologies and forms of online discipline (content takedown is one; limited access to online services is another) impact on the very essence of our biological lives, through our connection with the online medium. The next section will explore this biopolitical aspect by mobilising a series of alternative analytical tools for evaluating the issues raised up to this point.

#### **4 Enter Biopolitics**

Discussions of biopolitics in contemporary philosophical, political and cultural writings draw from the theoretical contemplations of Michel Foucault, derived from his extensive genealogical investigation into Western modernity. The use of the term ‘biopolitics’ certainly has a history that goes many decades before it appeared in Foucault’s works, while its meaning of merging life and politics has been subject to diverse interpretations (Lemke 2011; Liesen and Walsh 2012). Nevertheless, a preference here to Foucault’s notion of biopolitics relates to specific contemporary readings into digital and cultural regulation operating within it as their preferred conceptual framework. After all, Foucault’s unique insights produce an enduring critical viewpoint into the edifice of the modern condition, which traverses a stunningly wide field of topical concerns. As it will become apparent, and not surprisingly so, it connects directly with the themes and ideas discussed so far. It is well worth summarising particular aspects of Foucault’s extensive reflections on the biopolitical management of life processes and dispersion of power.

#### **4.1 Biopolitics and Biopower**

Foucault uses the terms 'biopolitics' and 'biopower' in several contexts without making consistent or clear distinctions between the two (Lemke 2011). It has been argued that with the former he tends to refer to a strategy, a social rationality and a political practice that relates to the latter, which, in turn, is conceived as a mode of power relations where political and biological knowledge merge (Takács 2017; Nadesan 2008).

Foucault's analysis of biopower replaces an understanding of power that is traditionally attached to sovereignty as 'the right to take life or let live', with the power 'to foster life or disallow it to the point of death' (Foucault 1978, 138). In this respect, this power applies to humans not simply as individual beings, but as species (Foucault 2003). Note that power in the Foucauldian vocabulary is conceived as a multiplicity of relations immanent in a setting, whereas state sovereignty, the formulation of law and other established social hegemonies constitute only terminal forms in which power materialises (1978). Biopower is primarily concerned with fostering the health and wellbeing of populations so they can live and be more productive longer (Randell-Moon and Tippet 2016), and it appears in two forms: one centred on disciplining the body and optimising its capabilities towards becoming integrating into systems of efficient and economic controls; and another focussed on the regulatory controls of the population (Foucault 1978). As such, biopower moves away from notions of power dealing with 'legal subjects over whom the ultimate dominion was death' (Foucault 1978, 142-143). Thus biopolitics constitutes a technology of power, which, according to Foucault's historical analysis, developed during modernity to involve sets of (social) interventionist processes and techniques, like statistics and demographics, for observing and controlling such objectives as birth and mortality rates, population fertility and so on; economically rational mechanisms, like individual and collective insurance, security and safety measures, for dealing with accidents and old age incapacities; and control over relations between human beings and their geographical, climatic, or hydrographic environment, including urban environments (Foucault 2003).

Foucault located biopolitics within the context of governance practices of the evolving Western liberal state. During the rise of modern capitalism (through the 18th and 19th centuries), an interest in the relationship between populations and their environments was linked with overarching goals of health and productivity: the desire to supply business and other productive enterprises with physically and mentally healthy labour force, called for closer attention to life contingencies and demanded government devised, organised and

actualised towards effectively calculating and managing ‘climate, disease, industry, finance, custom, and disaster’ (Miller 2014, 191-192). As ‘biological existence was reflected in political existence’ (Foucault 1978, 142) and ‘life’ emerged as the centre of political strategies (Lemke 2011), the governmentalisation<sup>12</sup> of life and its mechanisms would unfold in schools, hospitals, the army, prisons and psychiatric institutions, marking a gradual key shift from power accumulated by the sovereign towards power dispersed among populations (Miller 2014). Biopolitics connotes bodies being placed within dispersed networks of material, institutional and administrative coercions and knowledge structures, through which they become subject to processes of self-surveillance and self-discipline towards optimising and securing their existence (Foucault 2003; Miller 2014).<sup>13</sup> This also connects to Foucault’s idea of government as not limited to political structures or management by the state, but as including a broader range of practices, too, that ‘structure the possible field of actions of others’ and control conduct (Foucault 1983, 221). Thus biopolitics denotes ‘a distinctive art of government that historically emerges with liberal forms of social regulation and individual self-governance’ (Lemke 2011, 34).

## **4.2 Neoliberalism & Technology**

Foucault acknowledged that by endeavouring ‘to administer, optimise, and multiply’ life, biopower exerts positive influence on it (1978, 137). Nevertheless, biopolitics bears a number of caveats, of which two in particular tie in with the present discussion.

### *4.2.1 The rise of Neoliberalism*

The dispersal of power which biopolitics attains to is characteristic of liberalism, which, as a principle and method for rationalising the exercise of government, ‘obeys the internal rule of maximum economy’ (Foucault 2008, 318). The modern state’s aims of health and social productivity, as discussed above, called for updating governmental reason

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<sup>12</sup> Governmentality is a key concept in Foucault’s work, discussing ‘not “government” as an institution [...] but as the activity that consists in governing people’s conduct within the framework of, and using the instruments of, a state’ (2008, 318).

<sup>13</sup> Foucault (1978) brings these ideas close to the concept of ‘normalisation’, discussed within his account of discipline. Normalisation talks of discipline through the imposition of refined social norms, such as medical norms towards attaining good health, instead of subjecting directly to legal norms.

towards complying with rational behaviour, as in foreseeing and managing the allocation of scarce resources towards alternative ends (Grenier and Orléan 2007). Governmental action would not be evaluated on moral grounds of its legitimacy or illegitimacy, but rather on its success and capability to reflect on its own necessity, usefulness and potentially delivered harms: the principle of government shifted 'from external congruence to internal regulation' (Lemke 2011, 46). This would be optimally served in the spirit of governmental self-limitation, by dispersing governmental knowledge across institutions, structures and forces that operate within the social body – the market included. On the other hand, liberal governmentality of this mode and spread restrained state authority 'through the invention of universal individual rights and subordinated it to the interests of civil society through the gradual introduction of liberal democratic representative institutions' (McFalls and Pandolfi 2014, 177). Linking liberalism with political economy, Foucault points how the limited state prospect forwarded the – rational – imperative of self-regulation. Biopolitics also instil this imperative into individuals as self-discipline: an internalised obligation to look after their self (in terms of health, lifestyle and so on) in order to be productive subjects (see also Macherey 2015). Within this context Foucault credits biopower 'as one of the basic tools for the establishment of industrial capitalism and the corresponding type of society' (2003, 36), acknowledging that capitalism 'would not have been possible without the controlled insertion of bodies into the machinery of production and the adjustment of the phenomena of population to economic processes' (1978, 141).

An important transition started taking place in the second half of the 20th century, where Foucault traced the development of neoliberal governmentality as a response to liberalism's inflating state-phobia. He observes the conversion from Europe-based social market economies to extreme 'too much government' stance of American neo-liberalism, which seeks 'to extend the rationality of the market, the schemas of analysis it offers and the decision-making criteria it suggests, to domains which are not exclusively or not primarily economic: the family and the birth rate, for example, or delinquency and penal policy' (2008, 323).

The implications which we may distinguish in this are crucial. First, in continuation of liberalism's state limitation project, neoliberalism 'subordinated the state to market veridiction by reducing its role to the encouragement of biopolitical techniques of individual and societal self-government' (McFalls and Pandolfi, 177). Moreover, the dispersal of power is closely followed by increasing privatisations of management and administration aspects,

including the transfer of dispersed biopolitical technologies and their socially permeating effects under private control.

Second, liberalism referred to the rule of maximum economy to optimise life; neoliberalism in the name of life maximises economy. This indicates a key reorientation of focus for biopolitics. Whereas biopower 'endeavours to life, subjecting it to precise controls and comprehensive regulations' (Foucault 1978, 137) its ends are now aligned to inserting life processes into the market. It may thus serve 'the interests of capitalist accumulation and market forces by eliciting and optimizing the life forces of a state's population, maximizing their capacity as human resources and their utility for market capitalization' (Nadesan 2008, 3). If biopolitics connotes interventions at the levels of the body, birth-rates, sexuality, conduct and everyday life, and especially where such interventions are aimed at reproducing a prevailing sense of normalisation, neoliberalism subjects biopolitics and encompassed flow of life processes to market rationality and the cynicism, perhaps, of applying to this context the purely economic instrumentality of terms such as 'utility', 'budget', 'investment risk', 'liquidation' and so on.

To summarise the first caveat, neoliberal developments denote along with privatising state power the privatisation of biopolitics, and then a qualitative shift towards intensifying control of life processes as market resources.

#### 4.2.2 *New biopolitical technologies*

Biopolitics in the past included efforts in public health, medicine, psychiatry, public policing and sexuality sciences; for the 21st century it has evolved to employ now genetic technologies, biological weapons, global communication networks, and advanced digital analytical tools (Koopman 2014). On top of that, political technologies of control<sup>14</sup> seem now fully submerged in the widespread use of globally distributed, ubiquitous and pervasive digital technologies: a fast-expanding chaotic structure of intersecting apparatuses (*'dispositifs'*), within the operation of which are absorbed all notions of 'the Internet of Things', 'algorithmic governance' and so on – even the over-encompassing concept of the 'Network society'. Therefore, the reach of biopower deepens across populations, its impacts

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<sup>14</sup> Following Foucault's notions of biopolitics, this includes anything from surveillance and security systems, to self-imposed personal scheduling assistants (calendars and timetables) and health monitoring apps installed on wearable technologies.

are becoming more immediate and intensified, whereas uncontrollable diversities of private and public entities get involved in determining how, when and towards whom power is exercised, by virtue of their access to or ownership of the intertwining hardware and software setups and their management.

### **4.3 Biopolitics revisited**

Foucault's death meant that the link he began to establish between biopolitics and neoliberalism remained unclear. In addition, it coincided with a turning point in neoliberalism's development, that is the rise of neoliberal capitalism during the Reagan-Thatcher era (Harvey 2010). The emerging neoliberal state, according to its critics, would tend to intervene in the marketplace to protect financial interests, while principles of competition and fairness – otherwise championed by neoliberal theory – would be increasingly negated in 'the extraordinary monopolization, centralization, and internationalization of corporate and financial power' (Harvey 2010, 203). The gap left by Foucault, invited several reformulations of his biopolitics concepts. Among those, the following discussion will engage with the work of Hardt and Negri, which allows some direct connections to IP-related issues. In their ongoing project (2000; 2004; 2009; 2017), they have revised the notions of biopolitics, biopower and governmentality towards constructing a critical response to late neoliberal capitalist globalisation. Significantly, their work blends biopower with neo-Marxist perspectives of labour and, although criticised for overstressing or even blurring Foucault's original take on biopolitics, it is recognised for breathing into it a fresh activist dynamic (Lemke 2011; Koopman 2014) by creatively constructing the positive biopolitical subjectivity of the 'Multitude'. Of interest to this discussion is their extended consideration of immaterial and social production, as well as the development of the concept of the 'common', notably as their writing evidences links with some of the literature discussed in previous parts of this article.

#### **4.3.1 Immaterial labour**

Hardt and Negri view global informatisation forming a crucial paradigm shift and marking a break with modernity (2000). The information era has been most prominently characterised by the rise of immaterial labour: labour that creates immaterial products, such as knowledge, information, communication, but also imagination, relationships, affection, and emotional response (2000; 2004). Under these terms, 'immaterial' production reaches

beyond 'intellectual labour' (also in the sense of creativity and artistic works) to also include the social capital of social networks, personal connections, affective and digital labour (2017). However, immaterial production remains deeply material, as it involves brains and their bodies – like all forms of labour. Therefore, immaterial labour emerges as deeply biopolitical.

At the same time, whereas material production provides the main means on which we build social life – cars, clothes, televisions but also computers, smartphones and so on – 'immaterial production, including the production of ideas, images, knowledges, communication, cooperation, and affective relations,<sup>15</sup> tends to create not the means of social life but social life itself' (2004, 146). It is production that also delivers material goods, as well as relationships and, ultimately, social life.

#### 4.3.2 The 'common'

Hardt and Negri highlight that either at the sides of immaterial labour in the strict sense (employment) or mainly through our casual, common participation in such networks of communications and relationships, we are creating in common 'the means of interaction, communication, and cooperation for production directly' (2004, 147). There '[o]ur common knowledge is the foundation of all new production of knowledge; linguistic community is the basis of all linguistic innovation; our existing affective relationships ground all production of affects; and our common social image bank makes possible the creation of new images' (2004, 148). This frames Hardt's and Negri's definition of the 'common', which integrates, next to physical natural environments and resources, 'the languages we create, the social practices we establish, the modes of sociality that define our relationships and so on' (2009, 139).

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<sup>15</sup> Hardt and Negri (2004, 108) explain that 'affects refer equally to body and mind. In fact, affects, such as joy and sadness, reveal the present state of life in the entire organism, expressing a certain state of the body along with a certain mode of thinking.' They continue by defining *affective labour*, as 'labour that produces or manipulates affects such as a feeling of ease, well-being, satisfaction, excitement, or passion. One can recognize affective labour, for example, in the work of legal assistants, flight attendants, and fast food workers (service with a smile). One indication of the rising importance of affective labour, at least in the dominant countries, is the tendency for employers to highlight education, attitude, character, and "prosocial" behaviour as the primary skills employees need.'

Their notion of a common comprises the products of immaterial labour (which serve as the foundation for future creations, knowledge and ideas about living) as well as the processes of immaterial production themselves, due to their common, collaborative, and communicative character (2004).

#### 4.3.3 *The online biopolitical common*

Hardt's and Negri's common is distinguished by being placed within a re-envisioned biopolitical configuration, blending Marxist critical readings into socio-economic globalisation and understandings of the network(ed) society. We may bring the discussion's main context under this scope of comprehension.

Our time living within and across online settings, connecting with others, creating new knowledges and communication practices or building on the existing ones, generates in proportion with the numbers of interconnected populations a vast informational surplus, which is exploited in manifold ways. Our common interactions translate instantly into social network production, which includes online content and data – both traffic and personal. Informational surplus accrues from direct forms of original and derivative alike user-generated creative and generally cultural contributions (Lessig 2004, 2008; Jenkins 2006; Boyle 2008; Bruns 2008; Hayes 2008; Tushnet 2008; Jamar 2010; Fuchs 2015); from the indirect generation of content in the shape of communities coming together and taking form in shared social, cultural, knowledge exchange and even gaming spaces (Jenkins 2006; Benkler 2006); from 'irregular, unpaid, precarious, outsourced, crowd-sourced, and click-worked digital labour' on platforms, such as YouTube, LinkedIn and Pinterest, and through activities that include online reviews, surveys and improving online service performance (for example, reporting spam email) (Fuchs 2017, 71). Furthermore, Cohen (2017) discusses the non-stop production of a 'biopolitical public domain' of personal data, being harvested, refined and then distributed across data markets. Taking all this into consideration, there is a great deal of value deriving from endlessly flowing in information surplus, for the content industries (for example, promotion, appropriation of fandom, possible royalties); for the internet media of all kinds and sizes (infrastructures, online services, content hosts, social media and so on); for corporations, benefiting from unpaid digital labour reducing their wage-sum to therefore increase profits (Fuchs 2017); and, of course, for advertisers.

The Internet becomes a most illustrative example of what Hardt and Negri envisage when arguing that 'labor and value have become biopolitical in the sense that living and producing tend to be indistinguishable' (2004, 148). This we may take further, in relation to the network society, and analyse down into two different components.

4.3.3.1 - The first reflects on Foucault's biopower and biopolitics conceptualisations. We have already discussed on various instances the connection between biological life and the online setting. The Internet context actualises the dispersal of power across the network; across uncountable infrastructures, knowledge structures, applications and online platforms. At the same time, the neoliberal shift is projected upon this context: states have important online presence and access to network infrastructure control, but the management and government (in Foucauldian terms) of everyday online life is mainly distributed across (and owned by) market forces and private entities. The network incorporates biopower in its (re)production of life; across the architecture of its operations and fundamentally within its makeup of computer code (Lessig 2006), it integrates norms, both social and regulatory, surveillance, optimisation and security mechanisms, in and through its various operations, controlling individuals towards a productive existence and thus forwarding the interconnected human species. Finally, it recreates the contours of political economy, where the horizon of productivity is realised through the production of life – in online terms: the production of information, by which life is otherwise sustained and organised.

4.3.3.2 - The second component comes closer to Hardt's and Negri's contemplations, in recognition of the link they make between the Internet's biopolitical production and the common. They use communication as an example to denote how the common is produced and it also becomes productive, by suggesting that we 'communicate only on the basis of languages, symbols, ideas, and relationships we share in common, and in turn the results of our communication are new common languages, symbols, ideas, and relationships' (2004, 197). The common denotes a raw material that is 'not consumed in production but actually increases with use' (2004, 147). Yet, Hardt and Negri warn that, the same way production of value is understood in terms of the common, where the common has become the locus of surplus value, its exploitation equals to its expropriation. Exploitation denotes 'private appropriation of part or all of the value that has been produced as common' (2004, 150), even if that refers to relations or communications that are common by their nature, and results in turning what is common into private property and controlling it. Hardt and Negri also note that most often we focus on conflicts between the common and private property,

yet it is equally important to keep the common conceptually separate from the public, suggesting the (negative) example of institutional arrangements aiming to regulate common knowledge and culture (2009).

## 5 Information biopolitics - Conclusions

This discussion has produced a series of side-conclusions towards framing its major argument, examining the nature of society's relationship with the Internet medium, underlining the significance of information conceptualised as communications and cultural 'lifeblood' and 'fuel', and pointing to the different levels at which copyright law functions as a power tool and disruptive force.

The biopolitical framing of the network society context opens to alternative assessments of the values and forces at play. Arguably accentuating a politicised reading of copyright and its functions, this is not more political than the frequent invocations to freedom of expression and speech in debates over copyright reforms, or the economisation and commercial objectification of cultural life and values, to which the assumingly neutral, 'technical' applications of copyright laws contribute.

The analysis on biopolitics concluded with an adaptation of the common. A key difference with previous examinations into the common is its detachment from public domain conceptualisations, which tend to posit questions of private and public in terms of ownership and its absence. The 'common' is about the *sense* of common reflecting the place which an (information) artefact occupies in culture. From there the challenge for copyright law is not how to distribute its exclusivities, but how it may reimagine their realistic performance. In the 'culture as language' metaphor, exclusivity means banning use of a 'word', of a cultural artefact that has been established universally – in a sense – as a *common* reference. Once society's relationship with the cultural artefact is recognised as the paramount value in this equation, exclusivities still can be drawn, compensations can still be attributed to original creators, yet all reconfigured under a political economy rationalised upon different metrics for its intended targets and success.

For example, the notoriously debated Article 17 provision of the latest EU Directive 2019/790 struggles with coming around to a balanced solution, out of the impasses which the 'notice and takedown' practices regime had entailed. It makes its centrepiece the seemingly impossible simultaneous satisfaction of content owners and online service

providers, articulating in the process a complicated, arcane procedural groundwork for attributing royalties and determining liabilities. In the meantime, the works in discussion are quite trivial: they are simply uploaded content with circumstantial merit, drawing from the intent of use as pigeonholed into a limited range of established copyright exceptions of criticism, review caricature and parody, as per Art. 17(7)(a) and (b). Users are represented as consuming agents; they simply act, following a preordained action plan and receiving an online service, as much as serving the broader economic process.

In debates of this kind, the actual interests of socio-cultural participants as such come second. Certainly, copyright laws provide for exemptions and fair uses for the benefit of society. However, if one follows the development of policies and legal reforms in the last two decades and how these are rationalised, it seems impossible for the copyright systematisations in place to grasp – so much to quantify – the significance of certain works and brands becoming part of a cultural oligopoly that permeates society. As Klein (2000) has highlighted, this happens rarely by chance, since corporate content owners invest an enormous amount of effort and resources in promoting their works with a view to capturing the common mind – pretty much like the massive advertising displays in *Blade Runner*. Does investment justify cultural domination? In settings where commodification is embedded such questions may sound naïve. Not so, if one retains the social rather than merely the market aspect of such relations. To put it bluntly: should investment also justify, for example, electoral results? The problem with commodification is located within the absolutism of such rhetorical devices.

Another issue to remark on is the biopolitical image of economised cultural spaces. As society is reorganised under neoliberal principles in order to comply with market rationalities, the social participant, the tax-paying citizen waiting for the local authority to have her waste collected, the public library reader, the sick waiting at the hospital, all are being rebranded into ‘customers’. This is the true extent of biopolitics, where accountability towards the other, towards society, is reconfigured into ‘commercial liability to customers’: a schema comfortably falling within the apparatus and jurisdiction of private law, where the state (in name, only: in reality ‘society’) is absolved from all responsibility to secure and provide basic needs for individuals and communities, upon the presumption that solutions – and alternatives - exist on the market.

Such widely observed developments, as the case of water privatisations, with both its successes and failures taken into account, may offer a more concrete experience for debating neoliberalism and economisation (for example, see Roberts 2008). Without doubt, culture is an inconvenient ground to extract from empirical comprehensions of such matters. The dominant regulatory mindset appears fixated with perceptions of content and not capable of reviewing culture as mechanism or sets of mechanisms. Even when it becomes relatively admmissive of alternative inputs (for example it recognises cultural heritage) it translates them into ownership modes (MacMillan 2013).

Returning to copyright law, we have no delusions about the existing possibilities for restructuring its conceptual focus and terminological layout, and even more the reasoning which it implements down in its very foundations. However, critical understandings and tools, like the idea of an online commons as providing a biopolitical translation of the network society and its internal workings, could be employed for realising alternatives to current regulatory shortcomings

For example, where copyright laws demand authorisations from content owners, these could be managed through centralised and more relaxed automated systems. Or if not centralised, considering the disliking of neoliberal markets towards centralisations, such operations could be carried out by limited in numbers, recognisable and accessible outlets. For each use they could demand a substantially small fee.

Such solutions do not aim at resolving noted problems in their entirety. However, they promise to increase the *online legitimacy* capital. Notice and takedown systems and similar solutions incorporate almost autocratic disciplinary mechanisms, which suppress and are bound to be resisted or circumvented.

The argument is not about sharing or providing access but about framing. In the truest liberal, biopolitical manner, neither law nor enforcement provide the answer to conflicts over copyright. Corporate content owners need to read the online common carefully and refrain from action, not in the spirit of social responsibility, but of economic rationality: the power of the same online common lies with its capacity to return information productivity.

There is a contradiction between possibilities as above and the rising corporate power of online operators within this particular context of information biopolitics. Much of the future will depend on the resolution of this contradiction.

## References

- Alien*. Directed by Ridley Scott. USA: 20<sup>th</sup> Century Fox, 1978.
- Beckerle, Philipp, Claudio Castellini, and Bigna Lenggenhager. 2018. Robotic interfaces for cognitive psychology and embodiment research: A research roadmap. *WIREs Cognitive Science* e1486. doi: 10.1002/wcs.1486
- Benkler, Yochai. 2006. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven & London: Yale University Press.
- Blade Runner*. Directed by Ridley Scott. USA: Warner Bros, 1982.
- Bolter, Jay, David, and Richard Grusin. 1999. *Remediation: Understanding New Media*. Cambridge, MA & London: The MIT Press.
- Bourdieu, Pierre. 1986. The Forms of Capital. In *Handbook of Theory and Research for the Sociology of Education*, ed. John Richardson: 241-58. Westport, CT: Greenwood.
- Bonetto, Giacomo. 2018. Internet memes as derivative works: copyright issues under EU law. *Journal of Intellectual Property Law & Practice* 13: 989–997.
- Boyle, James. 2003. The Second Enclosure Movement and The Construction Of The Public Domain. *Law and Contemporary Problems*, 66: 33-74.
- Boyle, James. 2008. *The Public Domain: Enclosing the Commons of the Mind*, New Haven & London: Yale University Press.
- Braidotti, Rosi. 2013. *The Posthuman*. Cambridge: Polity Press.
- Brey, Philip. 2000. Technology as Extension of Human Faculties. In *Metaphysics, Epistemology and Technology (Research in Philosophy and Technology, vol. 19)* ed. C. Mitcham, 59-78. London: Elsevier/JAI Press.
- Brooker, Will ed. 2005. *The Blade Runner Experience: The Legacy of a Science Fiction Classic*. London & New York: Wallflower Press.
- Bruno, Giuliana. 1987. Ramble City: Postmodernism and Blade Runner. *October* 41: 61-74.
- Bruns, Axel. 2008. *Blogs, Wikipedia, Second Life, and Beyond*. New York : Peter Lang.
- Buckingham, David. 2010. Defining Digital Literacy; What Young People Need to Know About Digital Media. In *Medienbildung in Neuen Kulturräumen: Die Deutschsprachige*

*und Britische Diskussion*, ed. B. Bachmair, 59–71. Wiesbaden: VS Verlag für Sozialwissenschaften. doi:10.1007/978-3-531-92133-4\_4

- Byers, Thomas. 1987. Commodity Futures: Corporate State and Personal Style in Three Recent Science-Fiction Movies (Les avensirs mercantiles: l'etat corporatiste et le style personnel de trois films récents de science-fiction). *Science-Fiction Studies* 14: 326-339.
- Castells, Manuel. 2004 Informationalism, networks, and the network society: a theoretical blueprint. In *The Network Society: A Cross-cultural Perspective*, ed. Manuel Castells: 3-45. Cheltenham & Northampton, MA: Edward Elgar.
- Castells, Manuel. 2015. Networks of Outrage and Hope: Social Movements in the Internet Age. 2<sup>nd</sup> ed. Cambridge & Malden, MA: Polity.
- Cohen, Julie. 2017. The Biopolitical Public Domain: The Legal Construction of the Surveillance Economy. *Philosophy & Technology* 31: 213–233. doi:10.1007/s13347-017-0258-2
- Comor, Edward. 2013. Digital Engagement: America's Use (and Misuse) of Marshall McLuhan. *New Political Science* 35: 1-18. doi: 10.1080/07393148.2012.754666
- Coombe, Rosemary. 1998. The Cultural Life of Intellectual Properties; Authorship, Appropriation and the Law. Durham, NC & London: Duke University Press.
- Drahos, Peter. 1996. A Philosophy of Intellectual Property. Aldershot: Ashgate Dartmouth.
- Drahos, Peter, and John Braithwaite. 2002. Information Feudalism: Who Owns the Knowledge Economy? New York & London: The New Press.
- Elwell, Sage. 2011. Crisis of transcendence: a theology of digital art and culture. Lanham & Plymouth: Lexington Books.
- Firth, Joseph, John Torous, Brendon Stubbs, Josh Firth, Genevieve Steiner, Lee Smith, Mario Alvarez-Jimenez, John Gleeson, Davy Vancampfort, Christopher Armitage, and Jerome Sarris. 2019. The 'online brain': how the Internet may be changing our cognition. *World Psychiatry* 18: 119-129. doi:10.1002/wps.20617
- Flisfeder, Matthew. 2017. Postmodern Theory and Blade Runner. New York, London, Oxford, New Delhi, Sydney: Bloomsbury.
- Foucault, Michel. 1978. The History of Sexuality; Volume I: An Introduction. Trans. Robert Hurley. New York: Pantheon Books.
- Foucault, Michel. 1983. The Subject and Power. In *Michel Foucault: Beyond Structuralism and Hermeneutics*, ed. Hubert Dreyfus and Paul Rabinow, 208-226. Chicago: The University of Chicago Press.

- Foucault, Michel. 2003. 'Society Must Be Defended': Lectures at the Collège de France 1975-1976. Trans. David Macey. New York: Picador.
- Foucault, Michel. 2008. The Birth of Biopolitics: Lectures at the Collège de France 1978-1979. Trans. Graham Burchell. Basingstoke & New York: Palgrave Macmillan.
- Fuchs, Christian. 2008. Internet and Society: Social Theory in the Information Age. New York & London: Routledge
- Fuchs, Christian. 2010. Labor in Informational Capitalism and on the Internet. *The Information Society* 26: 179-196.
- Fuchs, Christian. 2015. Culture and Economy in the Age of Social Media. New York & London: Routledge.
- Fuchs, Christian. 2017. The Information Economy and the Labor Theory of Value. *International Journal of Political Economy* 46: 65–89.  
doi:10.1080/08911916.2017.1310475
- Gibson, William. 1984. Neuromancer. New York: Ace Books.
- Gordon, Terrence. 2010. McLuhan: A Guide for the Perplexed. London & New York: Continuum.
- Grenier, Jean-Yves, and André Orléan. 2007. Michel Foucault, l'économie politique et le libéralisme. *Annales. Histoire, Sciences Sociales*, 62: 1155-1182.
- Haraway, Donna. 1991. Cyborgs and Women: The Reinvention of Nature. New York: Routledge.
- Hardt, Michael, and Antonio Negri. 2000. Empire. Cambridge, MA & London: Harvard University Press.
- Hardt, Michael, and Antonio Negri. 2004. Multitude: War and Democracy in the Age of Empire. New York: The Penguin Press.
- Hardt, Michael, and Antonio Negri. 2011. Commonwealth. Cambridge, MA & London: The Belknap Press of Harvard University Press.
- Hardt, Michael, and Antonio Negri. 2017. Assembly. New York: Oxford University Press.
- Harvey, David. 2005. A Brief History of Neoliberalism. Oxford & New York. Oxford University Press.
- Hayes, Christina. 2008. Changing the Rules of the Game: How Video Game Publishers Are Embracing User-Generated Derivative Works. *Harvard Journal of Law & Technology* 21: 567–587.

- Hayles, Katherine. 1999. *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago & London: The University of Chicago Press.
- Hayles, Katherine. 2005. *My mother was a computer: digital subjects and literary texts*. Chicago & London: The University of Chicago Press.
- Hetcher, Steven. 2009. Using Social Norms to Regulate Fan Fiction and Remix Culture. *University of Pennsylvania Law Review* 157: 1869-1935.
- Holt, Raymond, and Stuart Murray. 2019. Prosthesis and the engineered imagination: reading augmentation and disability across cultural theory, representation and product design. *Medical Humanities*, March 20, <https://mh.bmj.com/content/early/2019/03/20/medhum-2018-011583> (accessed January 15, 2020). doi: 10.1136/medhum-2018-011583
- Huerta, Esperanza, and Rodrigo Sandoval-Almazán. 2007. Digital literacy: Problems faced by Telecenter users in Mexico. *Information Technology for Development*, 13: 217–232. doi:10.1002/itdj.20071
- Ibosiola, Damilola, Ignacio Castro, Gianluca Stringhini, Steve Uhlig, and Gareth Tyson. 2019. A Large-Scale Empirical Analysis of DMCA Notices and Online Complaints. <http://www.eecs.gmul.ac.uk/~tysong/files/Lumen-DMCA.pdf> (accessed: January 15, 2020).
- Jamar, Steven. 2010. Crafting Copyright Law to Encourage and Protect User-Generated Content in The Internet Social Networking Context. *Widener Law Journal* 19: 843–872.
- Jenkins, Henry. 2006. *Convergence Culture: Where Old and New Media Collide*. New York and London: New York University Press.
- Jones, Marc. 1998. Blade Runner Capitalism, the Transnational Corporation, and Commodification: Implications for Cultural Integrity. *Cultural Dynamics* 10: 287-306.
- Jones, Marc. Blade Runner Capitalism: A New Narrative on Globalization. In *Rethinking Globalization(s): From Corporate Transnationalism to Local Interventions*, ed. Preet Aulakh and Michael Schechter, 249-267. Basingstoke & New York: Palgrave Macmillan.
- Kerman, Judith. 1997. Technology and Politics in the Blade Runner Dystopia. In *Retrofitting Blade Runner: Issues in Ridley Scott's Blade Runner and Philip K. Dick's Do Android's Dream of Electric Sheep? 2<sup>nd</sup> edition*, ed. Judith Kerman, 16-24. Madison & London: University of Wisconsin Press.
- Klein, Naomi. 2000. *No Logo: Taking Aim at the Brand Bullies*. New York: Picador.

- Koopman, Colin. 2014. Michel Foucault's Critical Empiricism Today: Concepts and Analytics in the Critique of Biopower and Infopower. In *Foucault Now: Current Perspectives in Foucault Studies*, ed. James Faubion, 88-111. Cambridge: Polity.
- Kuczerawy, Aleksandra. 2015. Intermediary liability & freedom of expression: Recent developments in the EU notice & action initiative. *Computer Law & Security Review* 31: 46-56.
- Kurzweil, Ray. 2005. *The Singularity Is Near: When Humans Transcend Biology*. New York: Viking Penguin.
- Lange, David, and Jefferson Powell. 2009. *No Law; Intellectual Property in the Image of our Absolute First Amendment*. Stanford, CA: Stanford Law Books.
- Lankshear, Colin, and Michele Knobel, eds. 2008. *Digital Literacies: Concepts, Policies and Practices*. New York: Peter Lang.
- Lawson, Clive. 2010. Technology and the Extension of Human Capabilities. *Journal for the Theory of Social Behaviour* 40: 207-223.
- Lee, Peter. 2019. Reconceptualizing the Role of Intellectual Property Rights in Shaping Industry Structure. *Vanderbilt Law Review* 72: 1197-1283.
- Lemke, Thomas. 2011. *Biopolitics: An Advanced Introduction*. Trans. Eric Frederic Trump. New York and London: New York University Press.
- Lessig, Lawrence. 2004. *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: The Penguin Press.
- Lessig, Lawrence. 2006. *Code Version 2.0*. New York: Basic Books.
- Lessig, Lawrence. 2008. *Remix: Making Art and Commerce Thrive in the Hybrid Economy*. London: The Penguin Press.
- Liesen, Laurette, and Mary Barbara Walsh. 2012. The Competing Meanings of 'Biopolitics' in Political Science: Biological and Postmodern Approaches to Politics. *Politics and the Life Sciences* 31, no. 1-2: 2-15
- Litman, Jessica. 2001. *Digital Copyright: Protecting Intellectual Property on the Internet*. Amherst, NY: Prometheus Books.
- Livingstone, Sonia. 2004. Media Literacy and the Challenge of New Information and Communication Technologies. *The Communication Review* 7: 3-14.
- Logan, Robert. 2016. *Understanding New Media: Extending Marshall McLuhan*. New York: Peter Lang.

- Macherey, Pierre. 2015. The productive subject. *Viewpoint Magazine* October 31.  
<https://www.viewpointmag.com/2015/10/31/the-productive-subject/> (accessed: January 15, 2020).
- McFalls, Laurence and Mariella Pandolfi. 2014. Parrhesia and Therapeusis: Foucault on and in the World of Contemporary Neoliberalism. In *Foucault Now: Current Perspectives in Foucault Studies*, ed. James Faubion, 168-187. Cambridge: Polity.
- McLuhan, Marshall. 1959. Myth and Mythmaking. *Daedalus* 88: 339-348.
- McLuhan, Marshall. 1962. *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto: University of Toronto Press.
- McLuhan, Marshall. 1994. *Understanding Media: The Extensions of Man*. Cambridge, MA & London: The MIT Press.
- MacMillan, Fiona. 2013. The Protection of Cultural Heritage: Common Heritage of Humankind, National Cultural Patrimony or Private Property. *Northern Ireland Legal Quarterly* 64: 351-364.
- Meyers, Eric, Ingrid Erickson, and Ruth Small. 2013. Digital literacy and informal learning environments: an introduction. *Learning, Media and Technology* 38: 355-367. doi: 10.1080/17439884.2013.783597
- Miller, Toby. 2014. Foucault, Marx, Neoliberalism: Unveiling Undercover Boss. In *Foucault Now: Current Perspectives in Foucault Studies*, ed. James Faubion, 188-202. Cambridge: Polity.
- Morris, Merrill, and Ogan, Christine. 1996. The Internet as Mass Medium. *Journal of Communication* 46: 39-50. doi: 10.1111/j.1083-6101.1996.tb00174.x
- Nadesan, Majja Holmer. 2008. *Governmentality, biopower, and everyday life*. New York & London: Routledge.
- Ng, Lye Ee. 2017. Technology as an Extension of the Self: Socialising Through Technology for Young People with Autism. In Vol. 10290 of *Lecture Notes in Computer Science, Design, User Experience, and Usability: Understanding Users and Contexts. DUXU 2017 Proceedings, Part III*, ed. A. Marcus and W. Wang, 393 - 402. Cham: Springer. doi: 10.1007/978-3-319-58640-3\_28
- Niedernhubera, Maria, Damiano G. Baroneb, and Bigna Lenggenhagerc. 2019. Prostheses as extensions of the body: Progress and challenges. *Neuroscience & Biobehavioral Reviews* 9: 1-6

- Patel, Ronak. 2013. First World Problems: A Fair Use Analysis of Internet Memes. *UCLA Entertainment Law Review* 20: 235-256.
- Roberts, Adrienne. 2008. Privatizing Social Reproduction: The Primitive Accumulation of Water in an Era of Neoliberalism. *Antipode* 40: 535–560. doi: 10.1111/j.1467-8330.2008.00623.x
- Robocop*. Directed by Paul Verhoeven. USA: Orion Pictures, 1987.
- Seltzer, Mark. 1991. *Bodies and Machines*. New York: Routledge.
- Seltzer, Wendy. 2010. Free Speech Unmoored in Copyright's Safe Harbor: Chilling Effects of the DMCA on the First Amendment. *Harvard Journal of Law & Technology* 24: 171-232.
- Shanahan, Timothy. 2014. *Philosophy and Blade Runner*. Basingstoke & New York: Palgrave Macmillan.
- Spinello, Richard, and Maria Bottis. 2009. *A Defense of Intellectual Property Rights*. Cheltenham & Northampton, MA: Edward Elgar.
- Strate, Lance. 2008. Studying Media AS Media: McLuhan and the Media Ecology Approach. *Media Tropes* 1: 127–142.
- Sun, Haochen. 2013. Copyright and Responsibility. *Harvard Journal of Sports and Entertainment Law* 4: 263-317.
- Tajiri, Yoshiki. 2007. *Samuel Beckett and the prosthetic body: the organs and senses in modernism*. Basingstoke & New York: Palgrave Macmillan.
- Takács, Ádám. 2017. Biopolitics and Biopower: The Foucauldian Approach and Its Contemporary Relevance. In *Bioethics and Biopolitics: Theories, Applications and Connections*, ed. Péter Kakuk, 3-15. Cham, Switzerland: Springer.
- Tushnet, Rebecca. 2008. User-Generated Discontent: Transformation in Practice. *Columbia Journal of Law and the Arts* 31: 497–516.
- Urban, Jennifer, Joe Karaganis, and Brianna Schofield. 2017. *Notice and Takedown in Everyday Practice*. Version 2: Updated March 2017. University of California, Berkeley School of Law and the American Assembly at Columbia University.
- Williams, Douglas. 1988. Ideology as Dystopia: An Interpretation of Blade Runner. *International Political Science Review* 9: 381–394. doi:10.1177/019251218800900406
- Williams, Linda. 2011. Shadows of the Holocene: Transfigurations of the Non-Human World in Science Fiction Film. In *Changing the Climate: Utopia, Dystopia and Catastrophe*, ed.

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