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Valérien Guillier

Vectors Mutate

In *A Hacker Manifesto*, McKenzie Wark offered a theory of antagonistic classes that face off with each other on the terrain of information. She argued that information is produced by social cooperation and intellectual work, and thus emerges as a site for exploitation and the extraction of value. “Intellectual property” (IP), she wrote, has become the property form through which a “vectoralist” ruling class monopolizes, reifies, and commodifies the information produced by the hacker class. I will contextualize this focus on IP and explore how the shift from IP to new forms of value extraction over the last twenty-five years demonstrates the mutation of vectoralist class power.

Though the book was printed in 2004, it had already been published online in 1999. These two dates could be considered milestones of an era when free culture, freedom of information, information commons, free licenses for symbolic goods, and “creative” remuneration were sources of public debate all over the world. This debate coalesced around the passage of the Copyright Term Extension Act in 1998 and the launch of Napster the following year, the first peer-to-peer file-exchange freeware to reach a large audience. Since that time, however, the vectoralist class has become more concretely embodied in large digital platforms. The central role of IP in the extraction of value has declined, though it does continue in content disputes. Regardless of their mutation, vectoralist corporations continue to fight hard over patents regarding their hardware, and software corporations continue to fight over patents regarding both hardware and software. If the vectoralist class can mutate—as I argue it has—then hackers should consider altering their counterstrategies. While free licenses were part of the answer to IP lockdown, today there are new ways for hackers to take back control of vectors.

In her book, Wark builds a theory of information and the class struggle that it creates. Drawing on materialist approaches, her manifesto constituted one of the first critical reflections on the political economy of the internet which did not treat information as if it were either a magical solution to capitalist crisis or simply an extension of capitalism as traditionally conceived. It belongs to a short list of important scholarly contributions to the debate on (free) information published during the first ten years of the century.

Can a theory of information forged twenty-five years ago still apply today? After all, in a number of ways, the “free movement” seems to have emerged victorious: there is “free” content, “free” software, “free” information everywhere—even as we might debate how free it really is. The largest tech companies seemed to accept their role in building new models around the free flow of information. This is usually referred to as Web 2.0, the foundation for what we now call “platforms,” which have turned out to be little more than technologies of surveillance, extraction, and policing. One could easily think of Wark’s *Hacker*



The Peasants' Revolt, from a ca. 1470 manuscript of Jean Froissart's *Chronicles* in the British Library. License: Public Domain.

Manifesto as a book of the past, if only because at the time of its writing the internet still inspired utopian thinking. But it is clear that the production and dissemination of information remains subject to extractivism now more than ever before.¹ The highest-valued companies in the world essentially move information around, feeding us what we ourselves produce.

These forms of extraction are, according to Wark's conceptual language in *A Hacker Manifesto*, vectoral, although none of these new forms of vectoral power entirely match the descriptions in the book. What can we recuperate from this book for our current era? I will first place the book in the context of the "free movement," then focus on the changes that have occurred in the years since its publication, and conclude with its contemporary relevance.

A Hacker Manifesto and the Free Movement

At the turn of the twentieth century, free software and licenses constituted two aspects of an important change in how software (and later information more broadly) could be shared and reused. Free software programs like Mozilla Firefox and LibreOffice set "rules" for their code, which stated that everyone should be able to access, reuse, and share the code. Free licenses are a form of contract that legally binds anyone reusing a part of free software code to respect these rules. With the rise of free software and free licenses—turning IP against itself, so to speak—many thought an information revolution was on the horizon. In the Global North, personal computers were flourishing and Web 2.0 was soon to be implemented. Free licenses were applied to more and more sectors of cultural production. At first, such licenses were designed for software documentation. But soon after, Creative

Commons licenses proposed a “patch” that liberated more software. Suddenly, all the tools for the new information revolution were available—a revolution that would unfold, it was thought, neither within the borders of a country nor directly against any particular political system. It was about keeping “cyberspace” free. The idea was that information should stay out of the realm of commodification so that a gift economy could emerge.

A Hacker Manifesto proposed a class theory for this revolution and questioned this optimistic stance from the get-go.² When the book first came out, it was clear to those aware of what was happening online that Wark was offering a theory of information and a proposal for class struggle organized around it. Wark describes two antagonist classes: “hackers” and “vectoralists.”³ Hers is a theory of information as a “material production force.”⁴ As such, it extends the critique of property to the realm of what others at the time insisted on calling “immaterial” production. In Wark’s description of how class struggle plays out on the terrain of information, hackers produce “new concepts, new perceptions, new sensations, hacked out of raw data.”⁵ Information should be understood here as everything that is handled, transformed, or produced by various kinds of “creative” workers. The hackers produce information but don’t get to own it, because it is appropriated by the vectoralist class, whose interest “lies first and foremost in the free expansion of the vectors of communication, culture and knowledge around the globe.”⁶ The vectoralist class proliferates on the premise that “the reign of the vector is one in which any and every thing can be apprehended as a commodity.”⁷ The vectors are how the potentiality of the information is actualized in the form of the commodity. The main tool to achieve this appropriation is, according to Wark, IP, and especially copyright.⁸

Created a few centuries ago to protect authors from abuse by publishers, copyright has become a central tool of appropriation, especially with the rise of major cultural industries. The duration of copyright has been extended and the scope of production that it covers has been regularly broadened. Software was added to its scope in the 1970s, and more recently databases as well. Despite the culture industry’s perennial effort to extend copyright, the first Mickey Mouse movies finally made it into the public domain in 2024. Disney deployed all possible means to postpone it and for many years succeeded. Legal scholars were particularly active at the turn of the twenty-first century in protecting the balance originally set between the rights of authors and the right of the public. At the time, the companies trying to establish these “enclosures 2.0” were mostly major publishing houses (like Vivendi Universal) and large content producers (like Disney). IP was their major tool for the extraction of value from intellectual production (and still is to some extent).

This was the context for Wark’s focus on how vectoralists

appropriate the value produced by hackers through IP law. She describes “intellectual property” as an evolving form of the abstraction of information; as central to the struggle between hackers and the vectoralist class; and as what is monopolized by the vectoralist class in order to realize the value of information through commodification.⁹ Via the property form, the vectoralist class confines the potential of information to the commodity.

Property is central to Wark’s argument. She uses it to draw parallels between the contemporary mode of production and pastoralist and early capitalist modes of production. Wark even affirms that “free information is not a product,” arguing that public and gift economies are the reason why free information exists in the first place.¹⁰ This is where she seems to have been influenced by the free movement and its optimistic outlook.

Wark also suggested that information-based capitalism has renewed Marxist teleology. As she remarked: “In its desperate need to encourage productivity, the vectoralist class induces the very productivity that exceeds the commodity itself.”¹¹ Information by nature wants to be free, and the hacker class will always exceed the limits set by vectoralists, because invention exceeds repetition. The fight will at some point be won. However, one could argue that if the struggle between hackers and vectoralists over the appropriation of the value of information has never been more fierce than it is today, the original focus on IP as *the means* of realizing value needs to be reconsidered.

Vectors Mutate

In 2004, a small group of Harvard students was developing the first version of Facebook. Elsewhere, another small group was working on YouTube, which launched the following year. The age of platforms was about to begin. Platforms can be defined as infrastructures that encompass both material components and software, and that enable people to produce and consume information. The apparent neutrality of the word “platform” was specifically crafted so that platforms could avoid responsibility for their content and could distinguish themselves from mass-media companies.¹² Just as Covid-19 showed on a mass scale how viruses can mutate and adapt, vectors and their incumbent vectoralists react to evolutionary pressure and evolve.¹³

The spread of internet-connected personal computers disrupted the business models of various cultural industries. They needed to change (as viruses must) in the face of piracy, challenges to their authority by an (idealized) vision of democratic cyberspace, and the rise of novel technologies that allowed new actors to shake up the market.

Platforms present themselves not as gatekeepers, but as solutions. They don’t claim the authority to decide who



The Pirate Bay

The Pirate Bay logo. License: Free Use.

should be allowed to express themselves or what should be shown to you. These prescriptive functions are now

handled by algorithms, which curate content based on your previous online behavior and that of billions of other

users of the platform. Platforms claim that their algorithms are objective, giving you results that are simultaneously truth and magic (“it just works”). In this way, platforms individuate hackers and their content.

The platform model relies on the permanent production of free content. This is why platforms emphasize the importance of each user’s creativity. This call for creativity should give us pause, especially when platforms shape user creativity with technical and design constraints, or with moral rules set because of prudishness or the will of advertisers. The invitation for everybody to express themselves hardly hides how constrained the expression is. Still, platforms try and appear as spaces for the realization of freedom of expression. The tactical use of these platforms by protesters in the Arab Spring and other uprisings has strengthened this impression.

Platforms developed alongside the free movement, but they adopted its customs and principles selectively. Indeed, they have a very particular understanding of the slogan “information wants to be free.” On the one hand, platforms encourage the exchange of information—as long as it stays on their platform. On the other hand, they must also extract value from this exchange. Their business model is based almost entirely in the sale of their users’ attention to advertisers. This sets them apart from the old gatekeepers (large media and communication companies), which decided what forms of expression would be published or not, creating a public sphere that was limited to approved and selected expressions. Most platforms were invented in opposition to traditional gatekeepers; we can call these platforms *gateowners*.¹⁴ Their logic is that everybody should be allowed to express themselves, as long as the platforms can extract value from this expression. Gateowners own the space where expression (and advertising) takes place and rely on the algorithmic selection of content to feign offering an objective selection. They do not do the work that publishers used to do. Gateowners don’t assume the financial risks inherent to the role of publishing, but instead transfer these risks to those who create content, while extracting value from it. These new gateowners, *alongside* the gatekeepers, constitute different segments of the vectoralist class.

When it comes to content, IP is no longer the primary driver of value realization (or value extraction). What Shoshana Zuboff calls “surveillance capitalism” relies on data and the commodification of user profiles created from it.¹⁵ However, even if vectoralists sometimes publicly undermine copyright, they still heavily rely on it for their infrastructure. Even if they sometimes use open-source software, they also produce a lot of proprietary information that is either kept secret or patented. In this sense, IP is still an important issue, and the fight for information to be free is neither over nor outdated.

That said, IP is no longer the *central* source of value for

the vectoralist class. It has been overtaken by the data we produce and “share” through apps and online services. However, the materialist approach to property that infuses *A Hacker Manifesto* remains sound. The vector has mutated. IP as a source of value for vectoralists has been augmented, or even completed, by platform ownership.

A Theory for Present Times

Wark’s critique of vectoralism has never been more relevant. Value is extracted by vectoralists, and platforms are their public-facing manifestation. In order to regroup and develop counterstrategies for the present era, hackers should explore the meaning of the “commons” more thoroughly. Pointing to the limits of free information, Dmytri Kleiner writes that “whatever exchange value may be derived from the information commons, will always be captured by the owners of real property, which lies outside the commons.”¹⁶ How can hackers reintegrate back into the commons property that is currently outside of it?

The information commons or “knowledge commons” (which includes but is not limited to the digital commons) is more than free information. Free licenses and public-domain laws may guarantee access for all, but these are useless in dealing with the distribution of surplus value. They offer no protection against the new forms of extractivism that are organized at the level of infrastructure and the ownership of the vectors. If we want information to really be part of a commons (in the sense that Elinor Ostrom and Charlotte Hess, among others, have given to this term), we need collective governance and collective ownership of the means of diffusion and valorization.¹⁷

Contra Wark, IP can’t be thought of as “equivalent to factories or fields.”¹⁸ But platforms can. They are where hackers and what they produce are exploited. They are property built on capital accumulated through the valorization of information. Realizing that exploitation isn’t a feature of their job alone but of the capitalist mode of production, some hackers have organized and formed platform cooperatives.¹⁹ It is interesting that some of these cooperatives have chosen forms of legal ownership rather than free licenses to share the information they produce.

The term “commons” should be reconsidered in light of how it is used in concepts like “creative commons” and “information commons.” In the definition given by Ostrom and most scholars after her, the commons includes collective and differentiated rights of ownership but also collective rules (including rules on how to change those rules).²⁰ The commons should not be thought of as a ready-made mode of organization, but rather as something unfinished that concerns itself with the management of resources. In an information commons, the vectors are owned collectively. Historically, cooperatives have been formed in a variety of industries,



Cambridge Analytica and Facebook partnered together in the 2010's to gather information from users based on surveys they took, which was meant to be used in academia. License: CC BY 2.0.

from agriculture to manufacturing. There is no reason why hackers cannot form vectoral cooperatives. There could be platform cooperatives owned and operated by artists (for music or video streaming) or by delivery workers, to give just two examples.

Reclaiming ownership over vectors isn't just a way to recover streams of value. It is also a way to decide what should be valorized, beyond the limited realm of commodification. Wark insists on the importance of the potential of information: "To hack is to produce or apply the abstract to information and express the possibility of new worlds, beyond necessity."²¹ At stake is not only (exchange) value realization, but also the definition of the vector—what we collectively want vectors to do and *not* do. At stake as well is the definition of value itself.

The reappropriation of valorization wouldn't be the only aim of a hacker-cooperative movement. Platform cooperatives can also produce what Pascal Nicolas-Le Strat calls "oppositional commons," after Oskar Negt's oppositional public space. For Nicolas-Le Strat, this commons is a "substantial conception of the critical

stance that draws equally from 'negative' affects (opposing) and from 'positive' affects (communalizing), which combines them to simultaneously, in the same critical movement, abolish the dominant norms of activity and institute new ones."²²

An example of this is Resonate, a cooperative that provides a music streaming service.²³ It is owned by those who develop it—artists and workers—offering a new business model for streaming. Resonate's developers believe that algorithms shouldn't replace human suggestions and word of mouth for discovery, so they decided not to code an algorithm for recommendation, leaving space for human-to-human interaction on the platform. They also define their activity in a manifesto that has evolved over time and asserts that music should be more than a commodity. Elaborated in eleven points, the first point is relatively innocuous: "Music is art, not content." Then the manifesto quickly escalates: "We reject the historical basis of property in divine right and human supremacy in ecological relations." By the eleventh point, the manifesto has become a short history of domination and exploitation.²⁴ Resonate has invented a

(counter-)vector whose purpose goes way beyond just moving information around and producing value out of its commodification.

open-source software.

When it first appeared, *A Hacker Manifesto* shared the spirit of the free movement's critique of the new enclosure of information, even as it went beyond the movement's optimistic worldview. A product of its times, Wark's argument focused on IP, which remains relevant today even if it has been pushed to the margins by subsequent developments in the information class struggle. The richness of Wark's approach is that she describes control and ownership through the idea of vectors—market actors that move, give access to, and commodify information. Thinking with this argument today, we see that vectors have become even more central to capital accumulation. The mutation of vectors has changed the way they operate but has not changed their objectives and power.

In an interview a few years ago, Wark recognized that the term "hackers" hasn't aged well.²⁵ Whatever it's called, the class of information producers needs to change its strategy. Owning the vector is no easy thing to do. The "winner take all" dynamic of platform capitalism makes it hard for new platforms to emerge, but hackers are resourceful. They have developed counterstrategies to circumvent the limits of platforms. They have organized platform cooperatives backed by unions, consumers, workers, and local officials. They have developed new environments for sharing information, new vectors that incorporate governance tools reflecting the needs and values of those who use the environment. They have even lobbied to pass legislation—for example, the recent EU directive that improves working conditions for platform workers.²⁶ The struggle between hackers and vectoralists isn't over. Today, however, it is less about information as property than about the ownership of vectors.

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- 1
The term “extractivism” was first coined in South American scholarship to describe the relationship of capitalism to nature. It was originally used to describe the exploitation of natural resources, but it can be extended to other forms of production, including socially produced commodities like information. See Verónica Gago and Sandro Mezzadra, “A Critique of the Extractive Operations of Capital: Toward an Expanded Concept of Extractivism,” *Rethinking Marxism* 29, no. 4 (2017).
- 2
I first encountered the print version of the book in the cleverly designed French edition published in 2005 by Critical Secret. Each thesis was printed on a new page, emphasizing their coherence and density.
- 3
The question of whether hackers constitute a class in themselves provoked debate after publication of the book. Wark offers a response to most of these critiques in the introduction to *Capital Is Dead: Is This Something Worse?* (Verso, 2019).
- 4
McKenzie Wark, “Et si ce n’était même plus du capitalisme, mais quelque chose d’encore bien pire?,” *Multitudes* 1, no. 70 (2018). Unless otherwise specified, all translations are by the author.
- 5
Wark, *A Hacker Manifesto* (Harvard University Press, 2004), thesis 2.
- 6
Wark, *Hacker Manifesto*, thesis 381.
- 7
Wark, *Hacker Manifesto*, thesis 332.
- 8
The World Intellectual Property Organization defines intellectual property as “creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.” The common trait is that IP laws creates a temporary—but sometimes infinitely renewable—right of property for productions of the mind.
- 9
Wark, *Hacker Manifesto*, thesis 18, 21, 32, 22 and 66.
- 10
Wark, *Hacker Manifesto*, thesis 131.
- 11
Wark, *Hacker Manifesto*, thesis 309.
- 12
Tarleton Gillespie, “The Politics of ‘Platforms,’” *New Media & Society* 12, no. 3 (May 2010).
- 13
The reference to Covid-19 here isn’t incongruous or random. As the public more or less complied with lockdown measures, platforms—one of the few windows to the outside world—grew like never before. And like other sites of consumption, they have declined since.
- 14
I elaborate on this term in my doctoral dissertation “Cultures en commun: Mutations et réappropriations de la diffusion et de la valorisation des biens symboliques dans l’environnement numérique” (PhD diss., Université Paris 8, 2023).
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Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (PublicAffairs, 2019).
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Kleiner, *The Telekommunist Manifesto* (Institute of Network Cultures, 2010).
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Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University, 2015); Hess and Ostrom, *Understanding Knowledge as a Commons: From Theory to Practice*, 1st ed. (MIT Press, 2011).
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Wark, *A Hacker Manifesto*, thesis 76.
- 19
See *Ours to Hack and to Own: The Rise of Platform Cooperativism, a New Vision for the Future of Work and a Fairer Internet*, ed. Trebor Scholz and Nathan Schneider (OR Books, 2016).
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Edella Schlager and Elinor Ostrom, “Property-Rights Regimes and Natural Resources: A Conceptual Analysis,” *Land Economics* 68, no. 3 (1992).
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Wark, *A Hacker Manifesto*, thesis 14.
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Nicolas-Le Strat, *Le travail du commun* (Editions du commun, 2016), 76; Negt, *L’espace public oppositionnel* (Payot, 2007).
- 23
See <https://resonate.coop/>.
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See <https://resonate.coop/fr/manifesto/>.
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Verso Books, “Capital Is Dead: McKenzie Wark in Conversation with Verso Books,” YouTube video, May 1, 2020 https://www.youtube.com/watch?v=eiV0wS_in-4.
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Council of the EU, “Platform Workers: Council Confirms Agreement on New Rules to Improve Their Working Conditions,” press release, March 11, 2024 <https://www.consilium.europa.eu/en/press/press-releases/2024/03/11/platform-workers-council-confirms-agreement-on-new-rules-to-improve-their-working-conditions/>.