

Information Literacy: Moving beyond critical to revolutionary

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Abstract

If we live in a knowledge economy (Ford, 2021), then information literacy is a key to understanding the world and how we can shape it. Recently, there has been a renewed focus on information literacy (IL) as it pertains to misinformation, disinformation, and propaganda in both academics and popular media. However, most of the attention has been placed on outrageous claims and wild, often bigoted, conspiracy theories; very little attention has been paid to the more commonplace disinformation campaigns that support hegemony. This paper serves as both a brief recap of how we got here, but more so as a call to move beyond merely being critical, in the Frankfurt School sense, and taking a more revolutionary stand against the underlying cause of this disinformation: capitalism. What information is produced, how it is disseminated and promoted, how it is accessed, and how it is framed is determined by who owns and controls the methods of production and dissemination and within a capitalist system, such as the United States, the “who” are capitalists. Any attempts to understand information without acknowledging and compensating for that fact can never achieve its aim. Therefore, we need revolutionary information literacy to cut through the hegemonic veneer. Building on Freire’s definition of literacy, revolutionary information literacy uses historical and dialectical materialism as the analytical lens to understand information and the context around it.

Keywords: *critical theory, information literacy, historical materialism, revolutionary literacy*

Introduction

If we live in a knowledge economy (Ford, 2021), then information literacy is a key to understanding and naming the world. A recent reading of Freire and Macedo's *Literacy: Reading the Word and the World* (1987) inspired me to rethink how I teach information literacy and to redesign my materials based on teaching the actuality of revolution, that we can and must change the world. Specifically, it was this sentence that sparked my reflection and subsequent research: "Reading the word and learning how to write the word so one can later read it are preceded by learning how to write the world, that is, having the experience of changing the world and touching the world." (p. 49). An understanding of how information shapes us is key to understanding how we can shape the world.

Since 2016, there has been a renewed focus on information literacy (IL) as it pertains to misinformation, disinformation, and propaganda in both academics and popular media (Agosto, 2018; Delellis and Rubin, 2018; Friesem, 2018; Johnson, 2018; Oltmann, Froehlich and Agosto, 2018; Osborne, 2018; Pek and Damien Wang, 2018). However, most of the attention has been placed on outrageous claims and wild, often bigoted, conspiracy theories (Berecz, 2020; Venook, 2020); very little attention has been paid to the more commonplace disinformation campaigns that support hegemony. In the foreword to "Information Literacy and Libraries in the Age of Fake News", former ALA president Julie Todaro notes the proliferation of online guides to spotting fake news, as well as additional sources on general "critical thinking." However, while "fake news" has become easier to create and disseminate, it is not a new phenomenon. The yellow journalism of

William Randolph Hearst and Joseph Pulitzer in the late 19th century blamed the sinking of the USS Maine on the Spanish, despite a lack of evidence, to drum up support for the eventual Spanish-American War (‘The long and tawdry history of yellow journalism in America’, 2016); Hearst, a Nazi collaborator, used his publications to fabricate a famine in the Ukrainian Soviet Socialist Republic in 1935¹ (Tottle, 1987; Martens, 1996); in 1964, the Johnson Administration made false claims about the so-called “Gulf of Tonkin Incident” which were repeated in the capitalist press to justify military escalation in Vietnam (Solomon, 1994); Judith Miller’s work in the *New York Times* gave cover for the imperialist invasion of Iraq by the United States of America (Abrams, 2004); etc. However, these stories, while false, were in support of imperialism and are often excluded when “fake news” is discussed².

This paper serves as both a brief recap of how we got here, but more so as a call to move beyond merely being critical, in the Frankfurt School sense, and taking a more revolutionary stand against the underlying cause of this disinformation: capitalism. What information is produced, how it is disseminated and promoted, how it is accessed, and how it is framed is determined by who owns and controls the methods of production and dissemination and within a capitalist system, such as the United States, the “who” are capitalists. Any attempts to understand information without acknowledging and compensating for that fact can never achieve its aim. After describing information literacy in its current state and some of its shortcomings within the knowledge economy, this paper will highlight three steps in forming a revolutionary information literacy that can cut through the hegemonic veneer: revolutionary optimism, reframing language, and adopting dialectical and historical materialism.

Defining the Knowledge Economy

There are many different terms that have been used to describe the current stage of capitalism. Knowledge economy (Ford, 2021), information capitalism (Ellenwood, 2020), communicative capitalism (Dean, 2021), and digital capitalism (Fuchs, 2022) are just some examples, with each having their own criteria and descriptors. No economy has ever functioned without knowledge, information, and communication, but the role of knowledge and the value of information have been placed at the forefront of the current economy. In Ford's survey of labels and definitions of this stage, he suggests that the widely varied definitions are:

unified by the proposition that knowledge and its various manifestations - from data and information to forms of communication and the role of affect - have assumed a leading role in productivity and development, a role that's radically, perhaps even irreversibly, altered our world. (Ford, 2021, loc. 144).

For the purpose of the paper, the knowledge economy is when data, information, and communication assume a primary role in the socio-economic system.

Ellenwood uses the "Information Has Value" frame from the ACRL Framework for Information Literacy for Higher Education as an entry point for an in-depth look at the foundations of information capital and the political economy of information. Ellenwood's hallmarks of information capital are the commodification of information, concentration of ownership, surveillance, and labor exploitation (2020). The trend toward monopoly or oligopoly, commodification, and labor exploitation are not unique to the knowledge economy; these are universal traits of capitalism, but they do take different forms within this epoch. Examples of these characteristics include paywalls that limit access and

create artificial scarcities, the ever-shrinking number of journal and textbook publishers, the collection and commodification of user data by digital platforms, and the free labor provided by users of Facebook, Twitter/X, TikTok and other social media platforms creating and sharing content.

Importance of Literacy

Literacy has long been connected to power in Western culture. Historically, it was only those in positions of power and privilege who had the right to learn to read and write; literacy was primarily limited to nobility, clergy, and government officials (Houston, 1983). In the US, states like Georgia, North Carolina, South Carolina, and Missouri passed laws outlawing the education of enslaved Africans (Mitchell, 2008). The widespread ability to read and interpret laws and religious doctrines reduces the power of the ruling class to dictate terms to the ruled. It is for this reason that revolutionary peoples' movements have focused so heavily on literacy education.

The first successful revolution of workers and peasants, the USSR, led a massive campaign to combat illiteracy. Between the October Revolution of 1917 and 1939, the literacy rate in the Soviet Union skyrocketed from 22% to 81% (Kabatchenko and Yasnikova, 1990). Not only did literacy rates improve dramatically, but the Soviets sent linguists to the different nationalities throughout the USSR to develop written languages that had previously been only oral (Ornstein, 1959). In 1927, over 20 years before their final victory, the Communist Party of China established night schools where peasants could take classes after work. Additionally, spare-time schools that could be set up at any time or place were created for adults, especially women, who had difficulty attending the night schools. After the establishment of the People's Republic in 1949, these efforts were built upon and

expanded (Hawkins, 1974). As a result of the importance placed on reading and writing, the literacy rate in China rose from 20% in 1949 (Hawkins, 1974) to 78% in 1990 and 97% in 2018 (World Bank, 2022). In 1961, just two years after the revolution, Cuba embarked on a nationwide literacy campaign. During the Batista dictatorship, the rate of illiteracy among Cubans was over 20%; Cuba's National Literacy Campaign lowered that to less than 4%. Over 300,000 volunteers, including 100,000 students between 10 and 19, worked with over 700,000 illiterate Cubans throughout the cities and rural areas (McLaren, 2009). Literacy and education have continued to be priorities for the Cuban revolution (Diaz Ballaga, 2023).³

If we are in an age of information capitalism, then information literacy, like traditional literacy in the previous century, is a necessity to read the word and the world:

Reading does not consist merely of decoding the written word or language; rather, it is preceded by and intertwined with knowledge of the world. Language and reality are dynamically interconnected. The understanding attained by critical reading of a text implies perceiving the relationship between text and context. (Freire and Macedo, 1987, p. 29)

From the Freirean perspective, there is little to no difference between traditional literacy and information literacy, as the ability to recognize words without placing them in context is not the mark of a literate person.

The Advent of Information Literacy and Critical Information Literacy

While traditional literacy remains a significant problem in the United States, with one in five adults functionally illiterate and roughly 50% of the population lacking literacy proficiency (National Center for Education Statistics, no date), information literacy is also needed to have a truly literate populace. Information literacy as a concept first arose in the 1970s, but it was in the 1980s and 90s, during the push towards neoliberalism that swept higher education, that it began to gain traction. Definitions of information literacy have changed over time. The early focus of IL instruction was on specific skill sets and checklists and the ACRL Information Literacy Competency Standards for Higher Education set the tone:

Information literacy is a set of abilities requiring individuals to ‘recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.’ Information literacy also is increasingly important in the contemporary environment of rapid technological change and proliferating information resources. Because of the escalating complexity of this environment, individuals are faced with diverse, abundant information choices—in their academic studies, in the workplace, and in their personal lives. (ACRL, 2000).

While early definitions of information literacy often focused on specific skill sets, others branched out into describing it as a way of thinking or as a social practice (Addison and Meyers, 2013). In their review of early definitions of IL, Sample (2020) added metaliteracy, an umbrella term that also includes digital literacy, media literacy, and similar subjects, and transliteracy, the ability to read and write across platforms. Using Addison and Meyers classifications, Sample places critical theory into the information literacy as social practice category. However, none of these approaches or early definitions come from a strictly materialist perspective with a focus on the production and commodification of information.

The limitations inherent in a skill set/checklist model presented challenges to librarians who wanted to look at information more holistically; it was from this view that critical information literacy (CIL) came to the fore. One of the most comprehensive definitions of CIL states it is,

a theory and practice that considers the sociopolitical dimensions of information and production of knowledge, and critiques the ways in which systems of power shape the creation, distribution, and reception of information. CIL acknowledges that libraries are not and cannot be neutral actors, and embraces the potential of libraries as catalysts for social change. (Drabinski and Tewell, 2019)

In what scholars have referred to as an influential article (Tewell, 2015), Elmborg (2006) calls for critical literacy and critical pedagogy to be applied to information literacy instruction, stating, “Educators must either accept the dominant ideology of their society or intentionally resist it and posit alternative models. Neutrality is not an option” (p. 193). Tewell’s (2015) review of the first ten years of CIL highlights queer, feminist, and radical, constructivist and poststructuralist perspectives and suggests CIL:

ultimately helps the profession to question and resist the damaging effects of capital-centered education on learners, teachers, and society, and encourages librarians to develop an information literacy theory and practice that recognizes students’ personal agency and attempts to create positive personal and social change (p. 26)

The rise of CIL as a response to the rigidity of the ACRL competencies led to the ACRL Framework for Information Literacy for Higher Education (ACRL, 2015). The Framework shifted focus from specific skills and competencies to threshold

concepts. The concepts (Authority Is Constructed and Contextual, Information Creation as a Process, Information Has Value, Research as Inquiry, Scholarship as Conversation, Searching as Strategic Exploration) are abstract ideas that may be difficult to grasp, but once understood irreversibly change ways of thinking about information (Bauder and Rod, 2016).

While the Framework can be viewed as a response to CIL, they are not synonymous, nor has it been universally adopted. The Framework leaves space to interpret it through numerous lenses, but it does not specifically address issues of race (Rapchak, 2019) or social justice (Battista *et al.*, 2015; Gregory and Higgins, 2017; Saunders, 2017). Additionally, the adoption of the Framework by academic librarians is, at best, limited (Julien, Gross and Latham, 2018; Wengler and Wolff-Eisenberg, 2020).

The Shortcomings of Critical Theory

The problem with CIL is not the intent of educators nor the teaching methods, many of which align with Freire's teachings; the problem is the theoretical foundation that it is built on. Critical theory, as it generally referred to today, has its basis in the Frankfurt School. The Frankfurt School, formally the Institute for Social Research, began as an explicitly Marxist think tank, exploring why a socialist revolution failed in Germany around the time of World War I. When Max Horkheimer became director, the institute shifted away from labor and class politics, instead focusing on culture and authority. "Instead of politicizing academia, it academised politics" (Rose, 2014, loc. 127).

In the early 1930s, the institute was relocated to the United States as a response to the rise of Adolph Hitler and the Nazis. Once in the US, the institute's rightward

shift intensified. “Throughout its exile years in the United States, Horkheimer insisted that the M word and the R word (Marxism and Revolution) be excised from its papers so as not to scare the Institute’s American sponsors.” (Jeffries, 2017, p. 72). While this rightward shift allowed the institute to gain acceptance and even adulation in America, it negated any viability as a force for liberation:

The expression critical theory, as it was established as an intellectual tradition in the academy, is a form of theory that is overwhelmingly critical of the praxis of radical social movements. Critique is understood as an intellectual endeavor of self-clarification that draws on the spirit of Marxism at the expense of its substance. In this way, the Frankfurt theorists have diluted Marx’s revolutionary theory into a speculative tradition of critique, in the discursive and abstract sense of the term, which included idealist liberals and reactionaries. (Rockhill, 2021, p. 14).

When scholars of critical information literacy refer to its roots and reference figures like Horkheimer and Foucault (Elmborg, 2012; Downey, 2016), they, knowingly or not, have already conceded defeat. Horkheimer, as outlined above, was either an anti-communist at heart or an opportunist who threw away his principles for the safety, security, and adulation that anti-communism afforded him. Foucault “was an instrumentalized intellectual whose capitalist theoretical practice seamlessly coalesced with the needs of the global theory industry, at a moment when a premium was placed on promoting French theorists who turned their backs on the Red Menace” (Rockhill, 2020). Any theory built on such questionable grounds cannot be the structure that liberation is built upon. The focus and benefits of CIL, from Tewell’s (2015) perspective, are harm reduction in capitalist education and positive personal growth. These are neither revolutionary or liberatory aims, this form of CIL presents no goal of systemic changes that

would eliminate, instead of minimizing, the harmful effects of capitalism and capitalist education. My own work is not exempt from this criticism, a cursory look at my dissertation on Sci-Hub shows a heavy reliance on critical theory as a framework (LaDue, 2018). The point of this article is not to point fingers or navel-gaze, but to look for a new way forward.

Critical pedagogy, often thought of as offshoot of critical theory and a precursor to critical information literacy (Tewell, 2015), gained significant momentum in the 1980s in parallel with rampant anti-communism (Malott, 2017). Some of the more prominent critical pedagogy theorists, including figures such as Donaldo Macedo and Henry Giroux, were quick to demonize actually existing (or formerly existing) socialist states, especially the USSR. Malott (2017) notes multiple examples of anti-communist propaganda from these scholars, including Giroux equating the Soviet Union with Nazi Germany, the country the Soviets lost 27 million citizens to in their defense against fascism. An ideology that claims to be anti-capitalist but denounces capitalism's ontological opposite (communism) is too rife with contradictions to ever succeed in its stated mission.

Two theorists often included in discussion of critical theory and critical pedagogy, Antonio Gramsci and Paulo Freire, fall outside the traditional confines of critical theory and critical pedagogy. Gramsci is most well-known for defining hegemony. Not only was Gramsci an extraordinary theorist, but a true revolutionary theorist.⁴ Building from Marx's notion that the "ideas of the ruling class are in every epoch the ruling ideas, i.e. the class which is the ruling material force of society, is at the same time its ruling intellectual force" (Marx, 1845), Gramsci's concept of hegemony was a significant contribution to Marxist theory:

“The supremacy of a social group manifests itself in two ways, as ‘domination’ and as ‘intellectual and moral leadership’. A social group dominates antagonistic groups, which it tends to ‘liquidate’, or to subjugate perhaps even by armed force; it leads kindred and allied groups. A social group can, and indeed must, already exercise ‘leadership’ [i.e., hegemony] before winning governmental power (this indeed is one of the principal conditions for the winning of such power); it subsequently becomes dominant when it exercises power, but even if it holds it firmly in its grasp it must continue to ‘lead’ as well.” (Gramsci cited in Stender, 2021)

Hegemony stems from the superstructure that supports the base, political economy. In the Marxist tradition, the base or infrastructure is the relations of production and the productive forces. It is from this base that superstructure is built; the political, legal, ideological, and cultural forces of society constitute this superstructure.

While Gramsci died in prison for his ideas, Paulo Freire spent decades in exile after the 1964 far-right coup in Brazil. Freire’s “Pedagogy of the Oppressed” is generally considered one of the most important educational texts of the 20th century. One of Freire’s most important concepts is conscientização, or critical consciousness, which “refers to learning to perceive social, political, and economic contradictions, and to take action against the oppressive elements of society” (Freire, 2017, p. 9). However, the use of “critical” here is not a reference to critical theory in the Frankfurt School tradition. While Freire does cite Fromm and Marcuse, more frequently he cites revolutionary theorists such as Marx, Engels, Lenin, Mao, Che Guevara, and Fidel Castro who put their theories to test in actual revolutions. To split Freire’s work from its revolutionary intent only serves to diminish the force with which it can be wielded⁵. While Lenin was lamenting what opportunists and social chauvinists were doing to Marx, the phrase, “They omit,

obscure, or distort the revolutionary side of this theory, its revolutionary soul. They push to the foreground and extol what is or seems acceptable to the bourgeoisie” (1917) can also be applied to what critical pedagogists have done to Freire (Malott, 2017).

Revolutionary Information Literacy for Liberation

Critical information literacy has advanced IL, but it needs to be unfettered by the self-imposed limitations of traditional critical theorists. “For the master’s tools will never dismantle the master’s house. They may allow us temporarily to beat him at his own game, but they will never enable us to bring about genuine change” (Lorde, 1984, p. 112). For whatever contributions critical theory has made, it remains one of the master’s tools, it remains a tool of bourgeois academics. Elmborg, in a chapter on the definitions and challenges of critical information literacy, wrote, “I have never been able to see twenty-first century students as ‘oppressed’ in the Freireian sense” (2012, p. 92); in a nutshell, that is the shortcoming of CIL. The oppression of most modern US college students does not manifest itself in the same way as the landless peasant movements of Brazil in the 1960s, 1970s, or now, but to deny their oppression (and our own) denies the possibility of overcoming it. Nearly all college students face class oppression, but the majority also face oppression based on race, gender, ethnicity, sexuality, and the myriad other ways that the working class is divided. However, acknowledging these forces is not enough, the point is to change them.

Revolutionary optimism

The first step in helping students become more information literate and have a better understanding of the world around them is revolutionary optimism. “You have to act as if it were possible to radically transform the world. And you have to

do it all the time.” (*Angela Davis talk at SIUC on Feb. 13, 2014*, 2014). However, revolutionary optimism is not blind optimism, it is optimism based on the potential to transform and transformation cannot happen without theory put into practice. To teach the possibility of radical change, we must understand the specifics of our institutions, our students, and ourselves. To meet students where they are, we must know where they are coming from. This does not mean that we should be proselytizing from the lectern. It means, simply, that we continue to help students develop their analytical tools until they fully grasp and internalize the concepts.

The fact that the educator is not a neutral agent does not mean, necessarily, that he should be a manipulator. [...] Manipulation is debilitating and, likewise, irresponsible. What we as educators have to do, then, is to clarify the fact that education is political, and to be consistent with it in practice. (Freire and Macedo, 1987, p. 39)

Teaching for liberation has the potential to spark epistemological curiosity; having a clearer understanding of the world as it is, can drive students to learn more and develop methods for changing it. However, we cannot expect students to believe they can change the world if we don't believe it ourselves. A “central ingredient in forging a vehicle for the working and oppressed to take power has always been the genuine belief in the people to take history into their own hands” (Ford, 2023, pp. 25–26). That is why we must be explicit that change is possible and avoid having a goal of harm reduction; harm reduction may be a positive benefit but is not revolutionary or liberatory as an end goal. We can help students understand the world as it is while simultaneously helping them understand that it does not have to be this way.

Reframing language

The second step in moving towards a revolutionary information literacy requires a change in language and framing. Neoliberalism as a hegemonic force has infiltrated nearly every part of life (Harvey, 2005). One manifestation is the use of the term “consumer” in reference to information. For information literacy to be revolutionary, it cannot be passive; we must interact with and critique the information we encounter, not simply absorb or consume it.

Reification, in the traditional Marxist sense, is when a person’s “activity becomes estranged from himself, it turns into a commodity which, subject to the non-human objectivity of the natural laws of society, must go on its own way independently of man just like any consumer article.” (Lukacs, 1923). As capitalism became the dominant, hegemonic force, the process of reification and its description focused primarily on the side of the commodity production. However, during the current neoliberal phase of modern, late-stage capitalism, the reification process has overtaken the consumption side of the equation. Roughly one hundred years after Lukacs wrote, “the structure of reification progressively sinks more deeply, more fatefully and more definitively into the consciousness of man” (1923, sec. 2), the reification process has sunk into all aspects of society.

By framing people as consumers, the neoliberal hegemony shifts all human interaction into commercial transactions. If an academic article exists, the author is the (unpaid) laborer who creates the material, the publisher is the capitalist who sells the article, and the reader is the consumer (LaDue, 2018). Phrases such as consumer health are also emblematic of this process. Health is no longer something that describes the well-being of a person but is instead a commodity to be purchased on the market. It is the base, the means of production, that gives rise to

this language, but we are under no obligation to perpetuate the language that confines us. As with most of the issues discussed in this essay, this is not a new problem. As far back as the 19th century, the language and ideology of the ruling class has shaped how the working class sees itself (Engels, 1889). Not only must we avoid using the hegemonic framing of the ruling class, but we must also be explicit and forthright with our language. When we speak of the media, refer to the corporate or capitalist media (Springer, 2024); if we describe the United States as a democracy, refer to it as a bourgeois democracy. We cannot break with the existing structure while using the language developed to support it.

Adopting dialectical and historical materialism

The final step in revolutionizing information literacy is adopting dialectical and historical materialism as our analytic tool. Most information exists as part of the superstructure, but the superstructure is built around and in support of the base. Returning to Ellenwood's insights into the value of information,

a political economy of information enables us to understand the material basis for information production and dissemination. People make money by commodifying information which in turn consolidates power into elites' hands. The political economy of information unveils how information producers are exploited for the profit of a few. (2020)

To demonstrate how this process works, we need an analytical tool that offers a clear understanding of the interplay between production and society.

Dialectical materialism is a theory and method that is based in the materialist view that matter comes before all else, since even the human brain is matter. However, it

eschews what Marx called “vulgar materialism” for failing to account for the totality of existence at any given point and the relationship between consciousness and the material world. It is dialectical because of how the material world shapes human thought and behavior and how humans can then reshape the material world:

The dialectical method therefore holds that no phenomenon in nature can be understood if taken by itself, isolated from surrounding phenomena, inasmuch as any phenomenon in any realm of nature may become meaningless to us if it is not considered in connection with the surrounding conditions, but divorced from them; and that, vice versa, any phenomenon can be understood and explained if considered in its inseparable connection with surrounding phenomena, as one conditioned by surrounding phenomena. [...] Historical materialism is the extension of the principles of dialectical materialism to the study of social life, an application of the principles of dialectical materialism to the phenomena of the life of society, to the study of society and of its history. (Stalin, 1938)

Dialectical and historical materialism is an analytical tool that can make visible the forces that seem natural but are in fact products of a given society in a given time and place, and because of this possibility it presents an existential threat to the status quo.

For the proletariat the truth is a weapon that brings victory; and the more ruthless, the greater the victory. This makes more comprehensible the desperate fury with which bourgeois science assails historical materialism: for as soon as the bourgeoisie is forced to take up its stand on this terrain, it is lost. (Lukacs, 1920, sec. 4)

Used as a basis for information literacy, historical and dialectical materialism can shed light on the underlying false premises that much of information capitalism is built upon.

Connecting information to the base, i.e., the means of production, includes examining the role of interlocking boards of directorates and how they control what information is created and what information we have access to. As capitalism and capitalists solidified their control in the late 19th and early 20th centuries, the tendency towards consolidation, monopoly, and cartels intensified. As the number of powerful institutions shrank, their combined power grew, and they began to be connected in myriad ways, a process Lenin (Lenin, 1916) described more than a century ago. Over the following century this trend not only continued but intensified:

American capitalism represents more than just an economic system; it is an entire cultural and social order, a plutocracy – a system of rule by and for the rich – for the most part. Most universities and colleges, publishing houses, mass circulation magazines, newspapers, television and radio stations, professional sports teams, foundations, churches, private museums, charity organizations, and hospitals are organized as corporations, ruled by boards of trustees (or directors or regents) composed overwhelmingly of affluent business people. These boards exercise final judgement over all institutional matters.” (Parenti, 1988, p. 35)

While these plutocratic forces prefer to work behind the scenes, when challenged they will use the full weight of their financial might to quash any resistance. In the academic publishing world, the two most glaring, and galling, examples of the lengths that capitalists will go to punish anyone who threatens their profits are Aaron Swartz and Sci-Hub. As a programmer, Swartz was a child prodigy, having

developed a Wikipedia-style site at the age of 13 and being part of the team that developed RSS a year later (Scheiber, 2013). As an activist, Swartz wanted all of the world's information to be open and accessible to those who wanted it. At the age of 21, he wrote *Guerilla Open Access Manifesto*, a clarion call to take action against the false scarcity created by paywalls. The opening lines of the *Manifesto* continue to be an inspiration for many of us involved with this work,

Information is power. But like all power, there are those who want to keep it for themselves. The world's entire scientific and cultural heritage, published over centuries in books and journals, is increasingly being digitized and locked up by a handful of private corporations. Want to read the papers featuring the most famous results of the sciences? You'll need to send enormous amounts to publishers like Reed Elsevier. (Swartz, 2008)

In 2009, Swartz put his ideals into action by tapping into the network at the Massachusetts Institute of Technology and downloading articles from the JSTOR database; by 2011 he had downloaded and made available 4.8 million articles. For this act, Swartz was charged by the federal government under the Computer Fraud and Abuse Act. Federal prosecutors were insistent that any plea deal include time in prison, to make an example of him. In 2013, facing prison time, Swartz hanged himself at the age of 26 (Scheiber, 2013).

Alexandra Elbakyan created Sci-Hub in 2011, the same year as Swartz's arrest, as a response to Elbakyan's experiences as a graduate student. After repeatedly running into articles behind paywalls and being unable to pay \$30 or more to access the article, Elbakyan began participating in online communities dedicated to sharing information that circumvented these restrictions. Using her programming skills, Elbakyan developed Sci-Hub to streamline and automate this process

(Elbakyan, 2015). Sci-Hub is a web service with an associated repository that aims to provide free access to academic literature through a single, simple search interface. The site hosts and serves out articles regardless of their copyright status. When users search for an article on Sci-Hub, a search of the repository is performed. If the article is in the repository, the user receives the hosted copy of the article. However, if the article is not in the repository, Sci-Hub uses the credentials of someone with access to obtain a copy of the article; this copy is presented to the requestor and stored in the repository for future use (LaDue, 2018).

Unsurprisingly, academic publishing companies have filed numerous lawsuits against Elbakyan and Sci-Hub. Elsevier, Wiley, and the American Chemical Society have all filed suits, sometimes in conjunction with each other, in attempts to shut down Sci-Hub (Else, 2021). While these lawsuits continue to create difficulties for Sci-Hub, they have yet to shut it down. The response from Sci-Hub essentially puts morality above legality,

Sci-Hub has been hit by many lawsuits from academic publishing companies. They insist that Sci-Hub is not legal and accuse Sci-Hub of copyright violation or piracy. As the result of lawsuits access to Sci-Hub is being blocked in some countries.

The position of Sci-Hub is: the project is legal, while restricting access to information and knowledge is not. The current operation of academic publishing industry is massive violation of human rights. (*Sci-Hub: about*, no date)

So concerned with the threat posed by Sci-Hub, publishers have even taken to attacking academics who discuss it. Gabriel Gardner, a librarian at California State

University, Long Beach, discussed Sci-Hub in 2016 as part of a conference panel on resource sharing and the future of interlibrary loan. Following this panel discussion, the president of the Association of American Publishers wrote a letter to Gardner's dean admonishing Gardner, framing his comments as supporting Sci-Hub as opposed to explaining it. While the dean sided with Gardner, the implied intent of this intimidation is to keep academics from even discussing Sci-Hub (Jaschik, 2016; Masnick, 2016; Peet, 2016; LaDue, 2018). So, when we teach that "Information Has Value", we have ready examples of the lengths that capitalists will take to hoard that value and convert it to profit.

Shifting to a practice of revolutionary information literacy will not be easy. We will receive pushback from administrators, students, and reactionaries at-large, but it is a vital task and one we must take on with steadfast commitment. I yield the final words of this essay to Thomas Sankara, "As revolutionaries, we don't have the right to say that we're tired of explaining. We should always explain. Because we also know that when people understand, they cannot but follow us" (2007, pp. 196–197)

Notes

¹ The false famine of 1935 should not be confused with the actual famine of 1932-33

² For a more detailed understanding of how the media drives the public narrative see Michael Parenti's *Inventing Reality* (1993) and *Make-Believe Media* (1992) and Caitlyn Johnstone (2023) for contemporary analysis

³ While Cuba and China are perhaps the best known of the revolutionary literacy campaigns, they are only a part of a much larger group. Ho Chi Minh began the Vietnamese literacy movement in 1945, one month after declaring independence from France (Borton, 1976). At the time of the declaration, 95% of the Vietnamese people could not read or write; by the late 1950s the literacy rate for 12-50 year-olds was over 90% (Malarney, 2012). In Nicaragua, the Sandinista government made a nationwide literacy campaign part of the redevelopment plan after ousting the Somoza dictatorship (Cardenal and Miller, 1982). In just one year, the revolutionary government of Burkina Faso, under the leadership of Thomas Sankara, nearly doubled the literacy rate, moving from 12% to 22% (Sankara, 2007, p. 273). The PAIGC, the revolutionary party spearheaded by Amilcar Cabral, began their literacy campaign before the colonial Portuguese government had ceded power of Guinea-Bissau and Cape Verde in 1973. The PAIGC worked

with Paulo Freire on developing their national literacy policy, a process documented in Freire's *Pedagogy in Process* (Freire, 1978).

⁴ Gramsci joined the Socialist Party of Italy in 1913 and was an early leader of the Communist Party of Italy when it split from the socialists. It was for his revolutionary political activity that Mussolini imprisoned him; during the trial, the prosecutor stated that, "For 20 years we must stop this brain from functioning." During his imprisonment, Gramsci continued to write, producing his famous Prison Notebooks; most of the essays in this work are essays written using deliberately non-Marxist language to evade prison censors.

All the troubles of translation and interpretation are exemplified in the confused application of Gramsci's writing in practice. One of the great contradictions of Gramsci is that his thought has been consistently used to justify a rejection of revolutionary class struggle, despite having struggled in life so ferociously against reformist opportunism and ultra-left voluntarism as a long time member of the Communist Party. (Stender, 2021)

⁵ This is a common occurrence:

During the lifetime of great revolutionaries, the oppressing classes constantly hounded them, received their theories with the most savage malice, the most furious hatred and the most unscrupulous campaigns of lies and slander. After their death, attempts are made to convert them into harmless icons, to canonize them, so to say, and to hallow their *names* to a certain extent for the "consolation" of the oppressed classes and with the object of duping the latter, while at the same time robbing the revolutionary theory of its *substance*, blunting its revolutionary edge and vulgarizing it. (Lenin, 1917)

References

About Us | Clarke & Esposito (no date). Available at: <https://www.ce-strategy.com/about/> (Accessed: 6 July 2023).

Abrams, H.L. (2004) 'Weapons of Miller's Descriptions', *Bulletin of the Atomic Scientists*, 60(4), pp. 56–64. Available at: <https://doi.org/10.2968/060004013>.

ACRL (2000) 'Information Literacy Competency Standards for Higher Education'. Available at: <https://alair.ala.org/handle/11213/7668> (Accessed: 30 November 2022).

ACRL (2015) *Framework for Information Literacy for Higher Education*, Association of College & Research Libraries (ACRL). Available at: <https://www.ala.org/acrl/standards/ilframework> (Accessed: 1 December 2022).

Addison, C. and Meyers, E. (2013) 'Perspectives on information literacy: A framework for conceptual understanding.', *Information Research: An International Electronic Journal*, 18(3), p. n3.

Agosto, D.E. (2018) *Information literacy and libraries in the age of fake news*. Libraries Unlimited.

Angela Davis talk at SIUC on Feb. 13, 2014 (2014). Southern Illinois University - Carbondale. Available at: <https://www.youtube.com/watch?v=6s8QCucFADc> (Accessed: 21 November 2022).

Battista, A. *et al.* (2015) 'Seeking social justice in the ACRL Framework', *Communications in Information Literacy*, 9(2), p. 6.

Bauder, J. and Rod, C. (2016) 'Crossing thresholds: Critical information literacy pedagogy and the ACRL framework', *College & undergraduate libraries*, 23(3), pp. 252–264.

Berecz, T. (2020) *COVID-19 – A Plague of Racism and Conspiracy Theories*. International Network Against Cyber Hate - INACH, p. 19. Available at: https://www.inach.net/wp-content/uploads/COVID_paper_.pdf (Accessed: 19 December 2023).

Borton, Lady (1976) 'North Vietnam Puts the Emphasis on Literacy', *The New York Times*, 25 April. Available at: <https://www.nytimes.com/1976/04/25/archives/north-vietnam-puts-the-emphasis-on-literacy.html> (Accessed: 20 September 2022).

Cardenal, F. and Miller, V. (1982) 'Nicaragua: Literacy and Revolution', *The Crane Bag*, 6(2), pp. 64–70.

Dean, J. (2021) 'Neofeudalism: The end of capitalism?', in *Architecture and Collective Life*. Routledge, pp. 42–54.

Delellis, N.S. and Rubin, V.L. (2018) 'Educators' perceptions of information literacy and skills required to spot "fake news"', *Proceedings of the Association for Information Science and Technology*, 55(1), pp. 785–787. Available at: <https://doi.org/10.1002/ptra2.2018.14505501116>.

'DeMarco Law, PLLC' (no date). Available at: <https://www.demarcocolaw.com/> (Accessed: 9 March 2023).

Diaz Ballaga, W. (2023) *More than ten million people have overcome illiteracy thanks to the Yes, I can program.*, *Granma*. Available at: <http://en.granma.cu/cuba/2023-04-20/more-than-ten-million-people-have-overcome-illiteracy-thanks-to-the-overcome-illiteracy-thanks-to-the-yes-i-can-program> (Accessed: 16 February 2024).

Downey, A. (2016) *Critical information literacy : foundations, inspiration, and ideas*. Sacramento, CA: Library Juice Press.

Drabinski, E. and Tewell, E. (2019) 'Critical information literacy', *The International Encyclopedia of Media Literacy*. Wiley. Available at: <https://onlinelibrary.wiley.com/doi/10.1002/9781118978238.ieml0042>.

Elbakyan, A. (2015). Available at: <https://torrentfreak.com/images/sci-hub-reply.pdf> (Accessed: 5 July 2023).

Ellenwood, D. (2020) "'Information Has Value": The Political Economy of Information Capitalism', *In the Library with the Lead Pipe* [Preprint]. Available at:

<http://www.inthelibrarywiththeleadpipe.org/2020/information-has-value-the-political-economy-of-information-capitalism/>.

Elmborg, J. (2006) 'Critical information literacy: Implications for instructional practice', *The journal of academic librarianship*, 32(2), pp. 192–199.

Elmborg, J. (2012) 'Critical information literacy: Definitions and challenges', *Transforming information literacy programs: Intersecting frontiers of self, library culture, and campus community*, 64, pp. 75–80.

Else, H. (2021) 'What Sci-Hub's latest court battle means for research', *Nature*, 600(7889), pp. 370–371. Available at: <https://doi.org/10.1038/d41586-021-03659-0>.

Engels, F. (1889) 'Letters: Engels to Friedrich Adolph Sorge In Hoboken'. Available at: https://www.marxists.org/archive/marx/works/1889/letters/89_12_07.htm (Accessed: 28 November 2022).

Farrell, M. (2022) 'Pentagon Divides Big Cloud-Computing Deal Among 4 Firms', *The New York Times*, 8 December. Available at: <https://www.nytimes.com/2022/12/07/business/pentagon-cloud-contracts-jwcc.html> (Accessed: 9 March 2023).

Ford, D.R. (2021) *Marxism, pedagogy, and the general intellect: Beyond the knowledge economy*. Springer.

Ford, D.R. (2023) *Teaching the Actuality of Revolution: Aesthetics, Unlearning, and the Sensations of Struggle*. Iskra Books.

Freire, P. (1978) *Pedagogy in process : the letters to Guinea-Bissau*. Seabury Press.

Freire, P. (2017) *Pedagogy of the oppressed*. Published in Penguin Classics 2017. Translated by M. Bergman Ramos. New York London New Delhi Sydney: Penguin Books (Penguin modern classics).

Freire, P. and Macedo, D.P. (1987) *Literacy : reading the word & the world*. Bergin & Garvey Publishers (Critical studies in education series).

Friesem, E. (2018) 'Hidden Biases and Fake News: Finding a Balance between Critical Thinking and Cynicism', *Social Education*, 82(4), pp. 228–231.

Fuchs, C. (2022) *Digital capitalism : media communication and society*. Routledge.

Gregory, L. and Higgins, S. (2017) 'Reorienting an information literacy program toward social justice: Mapping the core values of librarianship to the ACRL framework', *Communications in Information Literacy*, 11(1), p. 14.

Harris, S. and Barrett, D. (2019) 'Justice Department investigates Sci-Hub founder on suspicion of working for Russian intelligence', *Washington Post*, 20 December. Available at:

https://www.washingtonpost.com/national-security/justice-department-investigates-sci-hub-founder-on-suspicion-of-working-for-russian-intelligence/2019/12/19/9dbcb6e6-2277-11ea-a153-dce4b94e4249_story.html (Accessed: 27 January 2023).

Harvey, D. (2005) *A Brief History of Neoliberalism*. Oxford University Press. Available at: <https://doi.org/10.1093/oso/9780199283262.001.0001>.

Hawkins, J.N. (1974) *Mao Tsê-tung and education: his thoughts and teachings*. Linnet Books.

Houston, R. (1983) 'Literacy and society in the west, 1500–1850', *Social History*, 8(3), pp. 269–293. Available at: <https://doi.org/10.1080/03071028308567568>.

Jaschik, S. (2016) *Supporting Sci-Hub vs. Explaining Sci-Hub, Inside Higher Ed*. Available at: <https://www.insidehighered.com/news/2016/08/08/letter-publishers-group-adds-debate-over-sci-hub-and-librarians-who-study-it> (Accessed: 5 July 2023).

Jeffries, S. (2017) *Grand Hotel Abyss: the lives of the Frankfurt School*. London New York, [New York]: Verso.

Johnson, M. (2018) 'Fighting "Fake News": How We Overhauled Our Website Evaluation Lessons', *Knowledge Quest*, 47(1), pp. 32–36.

Johnstone, C. (2023) 'American State Propaganda: A Thought Experiment', *Caitlin Johnstone*, 4 October. Available at: <https://caitlinjohnstone.com.au/2023/10/05/american-state-propaganda-a-thought-experiment/> (Accessed: 9 October 2023).

'Joseph V. DeMarco – DeMarco Law, PLLC' (no date). Available at: <https://www.demarcolaw.com/team/joseph-v-demarco/> (Accessed: 9 March 2023).

Julien, H., Gross, M. and Latham, D. (2018) 'Survey of information literacy instructional practices in US academic libraries', *College & research libraries*, 79(2), p. 179.

Kabatchenko, M.V. and Yasnikova, L.D. (1990) *Eradicating Illiteracy in the USSR. Literacy Lessons*. International Bureau of Education, P.

Konkel, F. (2022) *NSA Re-awards Secret \$10 Billion Contract to Amazon, Nextgov.com*. Available at: <https://www.nextgov.com/emerging-tech/2022/04/nsa-re-awards-secret-10-billion-contract-amazon/366184/> (Accessed: 9 March 2023).

LaDue, J. (2018) *Exploring the Convenience Versus Necessity Debate Regarding Sci-Hub Use in the United States*. University of Pittsburgh.

Lenin, V. (1916) 'Banks and Their New Role', in *Imperialism, the Highest Stage of Capitalism*. Available at: <https://www.marxists.org/archive/lenin/works/1916/imp-hsc/ch02.htm> (Accessed: 5 December 2022).

Lenin, V. (1917) 'Class Society and the State', in *The State and Revolution*. Available at: <https://www.marxists.org/archive/lenin/works/1917/staterev/ch01.htm> (Accessed: 1 December 2022).

Lorde, A. (1984) *Sister outsider: essays and speeches*. Trumansburg, NY: Crossing Press (The Crossing Press feminist series).

Lukacs, G. (1920) 'Class Consciousness by Georg Lukacs 1920', in *History & Class Consciousness*. Available at: <https://www.marxists.org/archive/lukacs/works/history/lukacs3.htm> (Accessed: 5 December 2022).

Lukacs, G. (1923) *Reification and the Consciousness of the Proletariat*. Available at: <https://www.marxists.org/archive/lukacs/works/history/hcc05.htm> (Accessed: 23 November 2022).

Malarney, S.K. (2012) 'Literacy for the masses: The conduct and consequences of the literacy campaign in Revolutionary Vietnam', *Literacy for Dialogue in Multilingual Societies*, 83.

Malott, C.S. (2017) 'In defense of communism against critical pedagogy, capitalism, and Trump', *Critical Education*, 8(1).

Martens, L. (1996) *Another view of Stalin*. Ottawa.

Marx, K. (1845) 'Part I: Feuerbach. Opposition of the Materialist and Idealist Outlook. B. The Illusion of the Epoch', in *The German Ideology*. Available at: <https://www.marxists.org/archive/marx/works/1845/german-ideology/ch01b.htm> (Accessed: 1 December 2022).

Masnack, M. (2016) *Publishers Association Sends Whiny Complaint Letter To Dean After Academic Librarian Discusses Sci-Hub, Techdirt*. Available at: <https://www.techdirt.com/2016/08/10/publishers-association-sends-whiny-complaint-letter-to-dean-after-academic-librarian-discusses-sci-hub/> (Accessed: 5 July 2023).

McKenzie, L. (2020) *Is Sci-Hub Safe?, Inside Higher Ed*. Available at: <https://www.insidehighered.com/news/2020/01/17/universities-ignore-growing-concern-over-sci-hub-cyber-risk> (Accessed: 27 January 2023).

McLaren, P. (2009) 'Guided by a Red Star: The Cuban Literacy Campaign and the Challenge of History', *Journal for Critical Education Policy Studies*, 7(2), pp. 51–65.

Mitchell, A.B. (2008) 'Self-Emancipation and Slavery: An Examination of the African American's Quest for Literacy and Freedom.', *Journal of Pan African Studies*, 2(5), pp. 78–98.

National Center for Education Statistics (no date) *Adult literacy*. National Center for Education Statistics. Available at: <https://nces.ed.gov/fastfacts/display.asp?id=69> (Accessed: 20 September 2022).

Oltmann, S.M.(1), Froehlich, T.J.(2) and Agosto, D.E.(3) (2018) ‘What do we do about “fake news” and other forms of false information: The roles of the organization of false information, professional ethics and information literacy?’, *Proceedings of the Association for Information Science and Technology*, 55(1), pp. 719–721. Available at: <https://doi.org/10.1002/pr2.2018.14505501091>.

Ornstein, J. (1959) ‘Soviet Language Policy: Theory and Practice’, *The Slavic and East European Journal*, 3(1), pp. 1–24. Available at: <https://doi.org/10.2307/305536>.

Osborne, C.L. (2018) ‘Programming to Promote Information Literacy in the Era of Fake News.’, *International Journal of Legal Information*, 46(2), pp. 101–109.

Parenti, M. (1988) *Democracy for the few*. 5th ed. St. Martin’s Press.

Parenti, M. (1992) *Make-believe media: the politics of entertainment*. New York: St. Martin’s Press.

Parenti, M. (1993) *Inventing reality: the politics of news media*. 2. ed. New York, NY: St. Martin’s Press.

Peet, L. (2016) *Sci-Hub Controversy Triggers Publishers’ Critique of Librarian*, *Library Journal*. Available at: <https://www.libraryjournal.com/story/sci-hub-controversy-triggers-publishers-critique-of-librarian> (Accessed: 5 July 2023).

Pek, S. and Damien Wang (2018) ‘National Library Board’s Public Education on Information Literacy: Teaching Citizens to Fight Fake News.’, *Singapore Journal of Library & Information Management*, 47, pp. 2–14.

PSI (no date) *PSI*. Available at: <https://www.psiregistry.org> (Accessed: 8 June 2023).

Rapchak, M. (2019) ‘That which cannot be named: The absence of race in the Framework for Information Literacy for Higher Education’, *Journal of Radical Librarianship*, 5, pp. 173–196.

Reuters (2022) ‘U.S. Navy awards Amazon Web Services contract worth over \$700 mln’, *Reuters*, 19 December. Available at: <https://www.reuters.com/world/us/us-navy-awards-amazon-web-services-contract-worth-over-700-mln-2022-12-19/> (Accessed: 9 March 2023).

Rockhill, G. (2020) ‘Foucault: The faux radical’, *The Philosophical Salon* [Preprint].

Rockhill, G. (2021) ‘Critical and Revolutionary Theory’, in *Domination and Emancipation: Remaking Critique*. Rowman & Littlefield, p. 117.

Rose, G. (2014) *The melancholy science: an introduction to the thought of Theodor W. Adorno*. Paperback edition. London: Verso.

Sample, A. (2020) 'Historical development of definitions of information literacy: A literature review of selected resources', *The journal of academic librarianship*, 46(2), p. 102116.

Sankara, T. (2007) *Thomas Sankara speaks: the Burkina Faso revolution, 1983-1987*. 2nd ed. New York: Pathfinder Press.

Saunders, L. (2017) 'Connecting information literacy and social justice: Why and how', *Communications in Information Literacy*, 11(1), p. 15.

Scheiber, N. (2013) 'so open it hurts. (Cover story)', *New Republic*, 244(3), pp. 16–23.

Sci-Hub: about (no date). Available at: <https://sci-hub.ru/about> (Accessed: 27 January 2023).

Solomon, J.C., Norman (1994) '30-Year Anniversary: Tonkin Gulf Lie Launched Vietnam War', *FAIR*, 27 July. Available at: <https://fair.org/media-beat-column/30-year-anniversary-tonkin-gulf-lie-launched-vietnam-war/> (Accessed: 5 March 2024).

Springer, D.M. (2024) 'A Materialist Guide to Media Literacy', *Hood Communist*, 18 January. Available at: <https://hoodcommunist.org/2024/01/18/a-materialist-guide-to-media-literacy/> (Accessed: 7 March 2024).

Stalin, J. (1938) *Dialectical and Historical Materialism*. Available at: <https://www.marxists.org/reference/archive/stalin/works/1938/09.htm> (Accessed: 14 September 2022).

Stender, N. (2021) 'Antonio Gramsci: A communist revolutionary, organizer, and theorist – Liberation School', 1 January. Available at: <https://www.liberationschool.org/antonio-gramsci/> (Accessed: 11 January 2023).

Swartz, A. (2008) *Guerilla Open Access Manifesto*. Available at: <http://archive.org/details/GuerillaOpenAccessManifesto> (Accessed: 5 July 2023).

Tewell, E. (2015) 'A decade of critical information literacy: A review of the literature', *Communications in information literacy*, 9(1), p. 2.

'The long and tawdry history of yellow journalism in America' (2016) in *PRI's The World*. Available at: https://link.gale.com/apps/doc/A531236220/LitRC?u=tel_a_pml&sid=ebsco&xid=935e9844 (Accessed: 5 January 2023).

Tottle, D. (1987) *Fraud, Famine and Fascism: The Ukrainian Genocide Myth from Hitler to Harvard*. Progress Books.

Venook, J. (2020) ‘20 Conspiracy Theories Trump Has Pushed Before and During His Presidency’, *Center for American Progress Action*, 19 May. Available at: <https://www.americanprogressaction.org/article/20-conspiracy-theories-trump-pushed-presidency/> (Accessed: 19 December 2023).

Wengler, S.T. and Wolff-Eisenberg, C. (2020) ‘Community college librarians and the ACRL Framework: Findings from a national study’.

World Bank (2022) *Literacy rate, adult total (% of people ages 15 and above) / Data*. Available at: <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS> (Accessed: 29 November 2022).

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Appendix

Applying Revolutionary Information Literacy to a News Story on Sci-Hub

The pushback against Sci-Hub continues, one of the more recent attacks has tried to tie Sci-Hub into the anti-Russian hysteria that has swept the western ruling class. In 2019, the U.S. Justice Department began “investigating a woman who runs a major Internet piracy operation on suspicion that she may also be working with Russian intelligence to steal U.S. military secrets from defense contractors” (Harris and Barrett, 2019). In their reporting on the topic, the Washington Post cites anonymous “people familiar with the matter,” an unnamed former U.S. intelligence official, computer-scientist Andrew Pitts, and Joseph DeMarco, an attorney who represented Elsevier in a suit against Elbakyan (Harris and Barrett, 2019). A subsequent article in Inside Higher Ed cites the Washington Post article, while also quoting Joe Esposito a “scholarly publishing consultant (McKenzie, 2020). Using

dialectical materialism as our analytical method, let's examine these stories. There is zero evidence presented, only unnamed sources citing suspicions.

Joseph DeMarco, the lawyer hired by Elsevier, is a former federal prosecutor who founded and headed the Computer Hacking and Intellectual Property (CHIPs) Program for the Southern District of New York ('Joseph V. DeMarco – DeMarco Law, PLLC', no date). His law firm, DeMarco Law, PLLC, is "dedicated to the protection of intellectual property" and even highlights the Washington Post article he is cited in on their homepage ('DeMarco Law, PLLC', no date). DeMarco has made a career in the field of intellectual property; his source of income is tied to ensuring that information remains a for-profit commodity, so he has a clear financial interest in attacking Sci-Hub and Elbakyan.

Andrew Pitts is a computer scientist and CEO of PSI Ltd., a company that is dedicated to "facilitating legitimate access to scholarly content" (*PSI*, no date). Far from an unbiased source, the success of his company requires colleges and universities to see Sci-Hub as an existential threat that must be combatted, no matter the cost.

Like Pitts, Joe Esposito's means of generating wealth is dependent on the existing scholarly publishing system. Esposito is a founding partner of Clarke & Esposito, a "management consulting firm concentrating on strategic consulting services related to professional and academic publishing and information services" (*About Us / Clarke & Esposito*, no date). Any potential threats to the publishing industry are also threats to Esposito's income.

Lastly, the story was originally published by the Washington Post, a newspaper whose owner, Jeff Bezos, also owns one of the largest defense contractors in the US. Amazon has multi-billion-dollar contracts with the Department of Defense and US intelligence agencies (Farrell, 2022; Konkel, 2022; Reuters, 2022).

Understanding the possible motivations of the various actors and commentators of a news story does not necessarily prove that the story is untrue, nor is that the point. The point of applying this type of analysis is to show possible bias and offer alternative ways of viewing official narratives. At the risk of sounding like an informant in a parking garage in an old spy-thriller, our best bet to understand information is to follow the money.