Research article

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Critical Information Literacy as a Path to Resist “Fake News”: Understanding Disinformation as the Root Problem

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Abstract: This paper proposes to discuss the problem of Fake News, its root problem disinformation and the path to resist it, critical information literacy. It initially distinguishes the concepts of fake news and disinformation through the views of authors as Allcott & Gentzkow (2017), Chomsky (2014), Serrano (2010) and Volkoff (1999). Our perspective considers that none of these phenomena are new or recent, and we do not consider the “combat” of fake news to be a simple task, considering that it involves issues related to the limits of freedom of speech and media censorship. Fake News are understood as intentionally and verifiably false articles created to manipulate people and disinformation as a bigger ensemble of techniques to manipulate public opinion for political gain with perverted (but not only false) information. One way to deal with these matters goes through a more complex process: the development of critical information literacy in the society as a whole. This concept is studied from the work of Downey (2016), Elmborg (2012), Freire (1967/1970) and others. Freire’s critical pedagogy helps the self-construction of subjects aware of their position and their social role, and it is a basic key for the formation of autonomous, critical and responsible individuals. Based on that, critical information literacy is a state of vigilance towards information that enables people to understand that information is socially constructed and to use it to produce new information in a creative and contextualized way. It concludes that critical information literacy is a consistent tool of resistance to Fake News as it allows people not only survive the informational flood but mainly to build a more ethical society in the use of information.

Keywords: Fake News; disinformation; critical information literacy; critical pedagogy; citizenship

1 Introduction

Martins (2007) highlighted, when introducing the Gulbekian Conference in 2006, that the spiritual situation of our time is distressing, that we live a “general crisis of the senses”, which he translated as a general crisis of values. This crisis comes from the difficulty of distinguishing what is false from what is true. Individuals lose themselves in the mass of information and disinformation and, without criticism, end up in a context of withdrawal from self, as hegemonic consciousness projects itself into the self. In this scenario, Fake News¹ find fertile ground to develop as a contemporary problem.

¹ In this paper the term Fake News will be written with capital initials to highlight that it is a theme and not the juxtaposition of the words fake and news.

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We understand Fake News as news articles intentionally and verifiably false created to manipulate, distort, confuse, defame specific people, nations, and / or institutions (ALLCOT & GENTZKOW, 2017). Based on this, this paper proposes, initially, to distinguish the concepts of Fake News and disinformation. There is a lot of confusion around the terms and a more informed assessment is needed. In addition, we understand, as the subtitle states, that disinformation is the root of the problem. Thus, we propose to evaluate more clearly the concept of disinformation in a conversation with the views of Volkoff (1999), Serrano (2010) and Chomsky (2014).

Our perspective considers that none of these phenomena are new or recent, they have only taken on exponential proportions from the equally exponential development of digital information and communication networks. In addition, we do not consider “fighting” Fake News a simple task as it involves issues related to the limits of freedom of expression and media censorship.

One way to deal with these issues is through a more complex process: the development of critical information literacy in society as a whole. This concept will be studied from the works of Elmborg (2006) and Downey (2016). We understand that this literacy prepares people to critically analyze information and allows them to distinguish relevant from irrelevant information; seek reliable sources; and use them to produce new information in a creative and contextualized way. We believe that critical information literacy is a consistent tool to resist Fake News.

We have identified, as other researchers in the field, the critical pedagogy of Paulo Freire (1967, 1996) as one of the pillars that sustain critical studies of information literacy. His vision of education includes overcoming a naive thinking with what Freire calls consciousness, that is, the self-construction of subjects that are conscious of their position in the world and of their social role. This is fundamental for the formation of autonomous, critical and responsible individuals, which can not only survive the informational flood, but mainly build a more ethical society in the use of information.

Based on the above, this paper initially discusses the terminological aspects demystifying possible confusions in relation to the contemporary phenomena that problematize information. The second part summarizes the studies of Serrano (2010), Volkoff (1999) and Chomsky (2014) and proposes a didactical organization of proliferation contexts and mechanisms to disinform. The third and final part defends critical information literacy as a way to combat disinformation and Fake News, based on the educational ideal of critical pedagogy. We emphasize that this paper constitutes bibliographical research, since it is based on studies already published and academically consolidated.

2 Understanding the Limits of the Terms

Fake News has motivated many discussions, news articles and scholarly works. Donald Trump’s election in the United States and Cambridge Analytica scandal ignited a lot of discussions. In the Brazilian Congress, the subject fomented laws that criminalize the production, hosting and sharing of Fake News, provoking reflections on the limits of freedom of expression and censorship. But would Fake News be the big problem? Are Fake News a new problem? Is disinformation and Fake News the same thing? How is the informational environment, in which they proliferate, built? And, above all, what can be done to protect oneself? These questions guide this study.

2.1 Defining Fake News

The definition used within this work is the one provided by Allcott and Gentzkow (2017, p. 213): Fake News are “news articles that are intentionally and verifiably false, and could mislead readers”. They are manufactured news, with journalistic characteristics, intended for manipulation and detached from the truth.

Based on this assumption, Fake News have very specific characteristics of production, formatting and intention. It is important to point out the terms “intentionally and verifiably false” to differentiate them

from, for example, a human error in the recording of a piece of news or information, or from a charge or satire that is admittedly exaggerated or lying, as in the case of “Sensationalist: a journal exempt from the truth”², which ostensibly points out its lack of commitment to the truth in its title, thereby sustaining its comic character.

Allcott and Gentzkow (2017) point to the fact that media, from the beginning of radio or television, were already targeted by the distrust of intellectuals concerned with the reduction of political debates and the concentration of power in the hands of the few. In the early 2000s, online news growth generated a new set of concerns, including the problem of the excessive diversity of viewpoints, which would make it easier to form “echo chambers” or “filter bubbles”, in which citizens with similar ideas would be isolated from opposing perspectives. More recently the focus of this concern has migrated to social networks.

The structure of digital social networks like Facebook and WhatsApp is radically different from previous ones, by the way posts are very easily widespread without verification or editorial judgment. In their research, Allcott and Gentzkow indicate that in the American elections of 2016:

1) 62 percent of American adults receive news on social media (Gottfried and Shearer 2016);

2) the most popular Fake News were more widely shared on Facebook than the most popular news (Silverman 2016);

3) Many people who see false news report that they believe in them (Silverman and Singer-Vine 2016); and

4) the most discussed false news tends to favor Donald Trump over Hillary Clinton (Silverman 2016).

Putting these facts together, several commentators suggested that Donald Trump would not have been elected president had it not been for the influence of Fake News (for example, see Parkinson 2016, Read 2016, Dewey 2016) (Allcott and Gentzkow 2017, p.213)

This evidence of the influence of Fake News in one of the world’s most important elections - due to the economic, political and war influence of the United States in the rest of the world - has inflamed discussions about the Fake News threat.

Fake News are not: unintentional communication errors; rumors that do not originate in a particular piece of news or information; conspiracy theories (theories whose truth is not easily verifiable and originate in people who believe in them); satire that cannot be interpreted as factual; false statements of politicians (because unfortunately they are a part of the political game); reports that are biased or misleading but are not false, and rumors that do not have a specific intent of political, economic, social influence etc. (Allcott and Gentzkow, 2017).

It is necessary to differentiate Fake News from rumors. Rumors do not always begin with a false intention: they may come from a misinterpreted opinion, a misunderstood or fractional truth, a belief, etc. Although they have their share of danger and cannot be neglected, as their circulation and replication can be as viral as Fake News, they usually do not take on an informational authority as in the case of Fake News.

Gabriel Itagiba³ points out why the phenomenon of Fake News did not become popular before: the high cost (producing, emplacing or broadcast Fake News in traditional media is expensive); lack of flexibility (once delivered, within a specific standard, there was no way to modify the contents); lack of knowledge about the reader / user; lack of the appearance of credibility (it was harder to believe in stories print in alternative media, e.g. flyers distributed by an airplane, common practice in the WW2). With the internet and social networks, these barriers have been overcome and are more easily cheated.

Polarizations around ideologies also provide a fertile ground for Fake News. On each side (for example, right and left in politics), wrapped in negative feelings toward the “opponent,” subjects tend to believe in Fake News more easily, especially when the “news” confirms their view. The mediation of information by algorithms (which are binary and do not work with flexibilities) reinforce this aspect of all or nothing.

Fake News also have their own logic in the semantics of the algorithms, taking advantage of the bubble where the user is. Knowing the user is one of the facilitators of Fake News spread. Gabriel Itagiba proposes a hypothetical example: user X is against party Y, who is in the presidency of the Country. Every day X expresses an opinion using hashtags like #GetOutY or #BeatItY. Several bots controlling fake profiles are

² Available at: <https://www.sensacionalista.com.br/> Access: July 2018.

³ Available at: https://itsrio.org/wp-content/uploads/2017/04/v2_fake-news-e-internet-bots.pdf Access: July 2018.

programmed to scan social networks for users who use the hashtags mentioned. After identification, bots execute the rest of their schedule, sending false messages about party Y to the user. The real users then share this information with real friends and contribute to spreading a bot-generated virality.

There are at least two motivations for the fabrication of Fake News. The first is that it is a lucrative business. According to Allcott and Gentzkow (2017), news articles that become viral may attract significant advertising revenue for the original site and selling the production and propagation services of Fake News has already proved to be an interesting market share. The authors cite a number of independent studies that have sought the source of Fake News and have found from US companies employing writers to groups of teenagers from Eastern Europe (Allcott and Gentzkow, 2017, p.217).

The second motivation is ideological, carried out by people who believe in a certain set of values and want to disrupt, humiliate and discredit the other side; ‘helping’ their side. In a vicious cycle, sustained by polarity fed by algorithms and facilitated by digital networks with their bubbles and echo chambers, the idea of ideological supremacy justifies the use of Fake News as a means to a ‘noble’ end.

When news and information cease to be the final activity that generates profit and this is obtained by the traffic of readers/consumers of advertising, the commitment to truth and ethics is loosened, giving space for commercial conveniences (Serrano, 2010; Allcott and Gentzkow, 2017). This model prepares the ground for Fake News, because those who produce them do not have the barriers of credibility concern, shareholders, advertisers who sustain long-term profit, but a lucrative short-term interest and speed.

Users, overwhelmed by the amount and speed, do not have time to check the origin, credibility, truthfulness etc. of the information they receive. By combining speed, quantity of information and user-oriented targeting, Fake News quickly and easily gains space.

This distinction between disinformation (a more complex phenomenon with several facets and artifices, which we will delve into in the next section), rumors and Fake News is very important to guide the actions of restraint or resistance to each of the phenomena. The differences must also be made clear in order to rule out the possibility of using Fake News demonization to institute censorship or to prosecute and punish pieces of information that are not Fake News but bother some power or hegemony. The term Fake News has been used so broadly that it runs into the meaning of misinformation, which is counterproductive.

There is a tendency, used by some researchers like Claire Wardle of First Draft, to distinguish misinformation (the inadvertent sharing of false information) and disinformation (deliberate creation and sharing of information known as false), and to conceptualize disinformation (and its variations) as false. But the concept of disinformation goes far beyond what is false or not. Disinformation goes through an ‘informing machine’ that also uses the truth and parts of the truth to disinform. Thus, to consider it false leaves aside a great and important part of disinformation: the treatment and the presentation of the truth.

2.2 Disinformation - the Real Problem

The subtitle of Volkoff’s book (1999) on the history of disinformation is “From the Trojan Horse to the Internet”. From this expression, one can already understand the first base on which we think of disinformation: the phenomenon is neither recent nor the result of digital information and communication technologies (ICTs). On the other hand, it is a fact that it has changed and expanded, as the devices and resources of information access and production have also been modified and expanded, exponentially. It is also interesting to think of the figure of the Trojan horse as the ‘gift’ that carries an unexpected, unpleasant ‘surprise’.

The word disinformation appears for the first time in Russian (*dezinformatsiya*) shortly after World War II to designate “exclusively capitalist practices to subdue the popular masses” (Volkoff, 1999, 23). In 1972, a classified KGB’s dictionary defined “disinformation data” as “data specially prepared to create inaccurate or distorted images of reality in the enemy’s mind, forcing them to make decisions that would be of great benefit” for the Soviet Union (Romerstein, 2001, p. 1).

Volkoff (1999), Serrano (2010) and Chomsky (2014) understand disinformation as a set of information practices. “Disinformation is a manipulation of public opinion, to achieve political ends, with information treated by perverted means” (Volkoff, 1999, p. 33). Disinformation is not necessarily false; it is often

distortions or parts of truth. Serrano underlines that “the mechanisms of disinformation and manipulation are more complex than the gross lie” (Serrano, 2010, p.31). It is not a simple action, but a complex of actions that construct an intentionally determined scenario. Disinformation involves information decontextualized, fragmented, manipulated, tendentious and removed from its historicity, that erases, distorts, subtracts, labels or confuses reality.

The European Union recently put together High-Level Experts Group (HLEG) on Fake News and disinformation to propose initiatives to combat these phenomena in the online environment. The group understands

disinformation as a phenomenon that goes well beyond the restrictive and misleading term “fake news”. Disinformation as defined in this Report includes all forms of false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit (HLEG, 2018, p.35).

Although the report “The Multi-dimensional Approach to Disinformation - Report of the Independent High Level Group on Fake News and online disinformation” does not place the same weight in traditional media as Serrano, which is easy to understand by the group’s own composition, it concludes that, while not necessarily illegal, disinformation is a phenomenon detrimental to society and individuals. Its scope can affect democracy, political processes and even public policy. The risk of harm “is driven by the production and promotion of disinformation for economic gains or for political or ideological goals and can be exacerbated by how different audiences and communities receive, engage, and amplify disinformation” (HLEG, 2018, p.35).

In an attempt of systematizing definitions of techniques, causes, and effects we have compiled Volkoff’s (1999) perspective - who looks at the phenomenon from the war strategies and intelligence services angle; of Serrano’s (2010) - who departs from his studies of mass media and its hegemonizing effect, and Chomsky’s (2014) - who questions what kind of democracy is being formed and what is the media role in this political construction.

The following phenomena are examples of contemporary contexts favorable to disinformation:

1. Hyperinformation - gigantic volume of information which makes filtering and selecting difficult and may lead to deletion/erasing by excess.
2. Hypervelocity - non-stop rhythm of information flows that leads to difficulty in delving into a subject; superficiality caused by speed.
3. Postmodernity - the relativization of science, truth and reality;
4. Asymmetric information - companies have/process more information about governments/people than governments, who, in their turn, have/process more information about people than people themselves.
5. Attention economy - readers / users / audience are no longer consumers but merchandise that needs to be retained by the platforms to “work” and consume ads;
6. Ostentatious Ignorance - a stimulation of mediocrity in which formal knowledge is considered superfluous and haughty;
7. Image fetishism - images replaces the context and the deepening of a critical vision about the events.

Volkoff explains that disinformation is not always a campaign produced by a specialist with an immediate goal. “It is often the testimony of a collective state of mind (...)” (Volkoff, 1999, p. 163). In this perspective, Pascual Serrano (2010) assesses disinformation by focusing on social, economic and cultural issues under the shield of contemporary media conglomerates and their mechanisms supported by hegemonic powers. A phenomenon enhanced by media actions.

Based on the aforementioned authors, disinformation is constructed and spread around a set of main mechanisms:

1. Infantilization - Information is transmitted as if being communicated to children, easily understandable: summarized, lacking contrasts, without contextualization, in simple language, usually Manichean, often based on an interested source or serving interests that are not clear. It is also easier to overlook and forget since it is not contextualized.

2. Commotion - Promotes greater adherence to feelings and affections than to reason. The emotional aspect hinders rational analysis and critical sense in individuals, opening a door to the unconscious where it foments ideas, desires, fears or compulsions. The emotion is true and the information may even be true, but the individual is stripped of conditions to perceive the mechanisms of reality distortion.
3. Flooding - Hyperinformation purposefully disseminated to divert attention or help information deletion/drowning. At the moment, it is the main mechanism of censorship in democratic states and presents 3 levels:
  - a. Macro: Dissemination of different news to diverge attention from the coverage of a specific subject.
  - b. Medium: Disclosure of unrelated information to diverge attention from the main fact.
  - c. Micro: propagation of irrelevant details about the fact to diverge attention from the main problem concerning the fact.
4. Orientation - argumentation to lead public opinion into supporting a determinate conduct:
  - a. Problem-Solution creation – a problematic situation is created in order to lead people to accept (sometimes demand) the solution, often an unpopular measure, corroborating the intended action;
  - b. Graduality/Future sacrifice - To make an unacceptable measure acceptable, one should introduce it gradually or present it as a sacrifice to be made in the future. Time favors public consent;
  - c. Culpability – Individuals are expected to take responsibility for their own condition (meritocracy) without any sociohistoric context;
  - d. Interpretation – the presentation of events is not doubtful, and facts are not concealed, however, the final interpretation is presented in a tendentious (biased) way;
  - e. Generalization/Illustration – without methodological seriousness, Generalization starts from the specific extrapolates into the whole, trivializing; or, the opposite, Illustration starts from the general and shows the favorable particularities.
5. Disorientation – Information presented with biased choices of viewpoints, making it difficult to comprehend.
  - a. Denial – if the public has no way to verify the truths;
  - b. Inversion – when the public knows about the fact but does not have access to details. Change the characters' or the facts' place;
  - c. Mix – use truths and lies, the fact is not denied but a false context is created to justify it;
  - d. Modification: the account of circumstances is modified so facts may be resignified;
6. Disguised partiality – adhesion or conduction to a preselected understanding of the world that is often Manichaeist and seldom explicit. The most commonly used techniques are:
  - a. Disproportion – has an impartial aspect albeit providing longer and deeper coverages to subjects of interest. Offers limited space to the opponent by silencing them when convenient to assure that inconvenient information is not spread.
  - b. Hierarchization – Establishment of predetermined hierarchies, such as the preponderance of an overly Western comprehension when debating a topic. Hierarchization is an eternal dilemma to knowledge organization: to find the balance between too much (excess) and too little (exclusion). To disinformation, the matter lies on the intentional exclusion of voices or on the naturalization of a hierarchy built on suspicious grounds.
  - c. Labeling – distribution of favorable or unfavorable labels forming a favorable or unfavorable opinion before facts are fully disclosed.
  - d. Dubious sources/experts – the use of specialized sources and expert analysts to corroborate tendentious information;
  - e. Equal parts – practiced mainly in the last phase of a disinformation campaign, when public opinion already supports the disinformers. The time is the same for both parties, but information/characters are chosen in a partial way;

Figure 1. Disinformation concept map

These mechanisms and their techniques presented are not intended to be exhaustive, but to organize the various authors’ approaches to disinformation. This exposition is thought to facilitate the understanding of the phenomenon and to contribute to build a resistance against it. The disinformation concept map summarizes and proposes an image of the discussion.

This scenario is also favored by a great distance from ethics, both in general and professionally, as Martins (2007) and Serrano (2010) put it. Volkoff (1999) suggests that journalists should take an oath and be monitored by an ethics council, as well as lawyers or medical doctors, and Serrano (2010, p.17) completes that “there is no sanitary inspection for information”. Cathy O’Neil (2016) refreshes the argument when showing that nowadays the matter of information ethics is far from being an exclusive concern of communication professionals, on the contrary, it has become an arena full of different agents. Digital megacorporations with their programmers, lawyers, and algorithm patents make decisions without transparency or accountability, putting lives at risk as well as democracy itself.

The concern for democracy is very present in Serrano’s work who says that “the power of media and its influence on public opinion is making democracy meaningless” (Serrano, 2010, p.10). In the same vein, Chomsky (2014, pp. 8-9) criticizes the century-old project of maintaining a “spectator democracy” designed to maintain society separated between “the political and specialized class” and the “disoriented flock.” Serrano (2010) also perceives this division but subdivides the ‘enlightened’ ones into those who use information to take advantage, and the critical ones “forced to live with the impotence of not getting their message to reach the citizen community” (Serrano, 2010, p.14).

With the advent of digital social networks, this scenario changes. On the one hand, the ‘horizontality’ of the network allows all (the connected) to express themselves, no media authority needed. On the other hand, there is less control and concern for reputation than in conventional media, as well as the new moderation of behavioral surveillance and content filtering algorithms. Disinformation and its unfolding as Fake News and rumors gain exponential proportions and begin to affect society in broader ways. Elections are won, wars receive popular approval, people fail to take vaccines, polarities are fierce, hate speech gains more adherence: our very own psychology is challenged (Lewandowsky et al. 2012; Marshall, 2017).

Should we go back to relying more on established authorities? Even considering politics and media more “corruptible”, science would still be left. Unfortunately, in academic and scientific arena, one can encounter the use of authority to distort results and sustain ‘truths’ that serve particular interests. Examples, like the ‘proven existence’ of the vegetable lamb abound in the newly released “The Age of Misinformation” (O’Connor & Weatherall, 2019).

In Brazil, the theme of disinformation in science has a recent example in the paper called “Effects of Philosophy and Sociology in High School Performance”⁴. It points out the negative effect of the mandatory inclusion of philosophy and sociology in high school education, concluding, in the synopsis, that those disciplines have a negative effect especially on mathematical performance. The study, published by IPEA, a serious Brazilian research institute, was widely questioned⁵ because it linked unrelated data that were stretched beyond the limit.

Although the various flaws of the aforementioned study is not the scope here, we welcome the example of information construction and distortion, pointing out a whole set of forces to be considered such as: the motivations and financing of the study, the disinformation caused by its media report, and the scientific methods used. This is an example of information that, even invested of (allegedly) scientific rigor, can also promote disinformation and carry bias.

This scenario suggests that the path to resistance goes through the adoption of a questioning attitude towards information or what we call critical information literacy (CIL).

⁴ The debate around this study was widespread in Brazil. Available in Portuguese at: http://www.ipea.gov.br/portal/images/stories/PDFs/Tds/td_2384a.pdf Access: July 2018.

⁵ Available in Portuguese at: http://www.anped.org.br/sites/default/files/images/nota_repu_final.pdf Access: July 2018.

3 Building the Resistance

We understand critical information literacy (CIL) as a set of lifelong skills, in constant learning, contemplated on the one hand, by information literacy, but also stressing the importance of critical input coming from Critical Theory (School of Frankfurt) and Critical Pedagogy (Paulo Freire) among others. Such criticality can be understood as the element that differentiates what is simply made available, technical or taught (formally or informally by technical devices or apparatus of power) from what is critically seized and used by individuals, contribute to their being in the world and therefore, the exercise of their citizenship.

Annie Downey begin her book stating “social justice depends on informed and engaged citizens” (Downey, 2016, 11). In fact, information and engagement are excellent pillars for presenting and discussing the concept of critical information literacy.

The difference the author makes between information literacy and critical information literacy is through the critique of ACRL Standards (2000). A group of librarians and researchers of the area have turned against the impact this document had: it established the skills to be acquired and the training steps, so the students become information literate. Downey (2016) cites some research showing poor results from efforts toward achieving the standards and presents an answer.

To deal with the issues of overly simplified, mechanistic information literacy skills teaching within the context of a confusing and largely corporatized information rich world, a growing number of librarians and information literacy scholars have begun to study and teach a relatively new subset of information literacy, called *critical information literacy*, which looks at the cultural, social and economic structures that underlie all of information production and dissemination. (Downey, 2016, page 18).

A decade before that, James Elmborg (2006), a founding CIL author, argued that critical information literacy carries the movement of transforming information literacy from something mechanical into something more human. By including the term “critical” he demonstrates his affiliation with Paulo Freire’s critical pedagogy, which is an “alternative pedagogy, one designed to create ‘critical consciousness’ in students. Rather than focus on knowledge acquisition, students identify and engage significant problems in the world.” (Elmborg, 2006, p.193).

This human, practical and continuous perspective, sensitive to the several influences that shape information is what characterizes critical information literacy. It is about raising consciousness to the fact that information is socially constructed; that people do not acquire skills, but learn to have the habit of questioning the origins, interests and contexts of information production; and never become fully literate: they continually develop their literacy throughout life, since socio-political-economic-cultural conditions are always changing, so should our understanding of information production, dissemination.

It is at this point that critical information literacy meets education to resist disinformation. Individuals stimulated in their curiosity, valuing the search for knowledge through a dialogical and practical vision of life, people who perceive themselves as historical, social, cultural beings that influence and are influenced by this whole system, these individuals are able to begin to question the meanings and impacts of the information they receive.

In 1967, Freire was already concerned about the need for a broad consciousness of Brazilian people that would lead them, through an education, to a “posture of self-reflection and reflection on their time and space” (Freire, 1967, p. 36). This “elevation of the masses way of thinking” as he puts it, along with politicization and consciousness, would carry people from a position of spectators to that of authors of their own history. This is not an easy task, as it directly collides with hegemonic forces that intend to maintain themselves in power and that work to preserve this state of affairs. However, in this work of consciousness and through dialog, it is possible to stimulate critical information literacy and, in a better prepared way, to resist the manipulation mechanisms discussed here.

The memorizing intellectual, who reads for hours, taming himself to the text, fearful of risking himself, speaks of his readings almost as if reciting from memory - he does not realize, when there really is, any relation between what he has read and what has been happening in his country, in his city, in his neighborhood. He reads it accurately but seldom rehearses something personal. (Freire, 1996, 30, our translation)

Transposing this reality to the current daily routine of the flood of digitized, urgent and shallow information, we realize that having contact with a lot of information does not necessarily develop a conscious relationship. Critical information literacy requires a preparation for a critical and reflexive thinking.

Adopting the perspective of Information Science (and not from Library Education, as its origins), we understand critical information literacy as a state of eternal alertness, always vigilant in dealing with information, in which we constantly ask ourselves, among other questions: Who produced this information? With what intent? When and under what conditions? With what difficulties/facilitations? Who financed it (and with what intent)? Where did it go through? How did it get to me? Which groups does it represent and which ones it silences? What other similar/different information did not come to me in its place and why? Often the focus of our work is to develop “a critical engagement with information sources”⁶ (Accardi, Drabinski and Kumbier, 2010, p. xiii), not only in the library but anywhere.

In this sense, we agree with Nicole Lee’s affirmation (2018, p. 462) on research about fake news, that Media and Information Literacy (MIL) education can be an effective way to mitigate disinformation damages.

It is appropriate to say that we understand Media and Information Literacy (MIL) almost as a synonym of Critical Information Literacy (CIL), because we recognize UNESCO’s effort to make information, media, digital, ICT, and other literacies all fit into a composite concept that intends to aggregate our efforts.

Media and Information Literacy recognizes the primary role of information and media in our everyday lives. It lies at the core of freedom of expression and information - since it **empowers** citizens to **understand** the functions of media and other information providers, to **critically evaluate** their content, and to make **informed decisions** as users and producer of information and media content. (UNESCO, online, 2019, emphasis added)⁷

If we say almost, it is because we feel that CIL, more than a concept, is a political stance. Professionals that identify themselves as CIL teachers, researchers or practitioners are basically stating we are not here to train or check boxes, we are here to arise consciousness, stimulate emancipation and fight naturalized injustices through our researches, courses and practices. In sum, as we highlighted in the quotation, it is about empowerment, understanding, critical evaluation and informed decisions, just as MIL is presented by Unesco.

As we agree with HLEG and UNESCO that resistance to this information tsunami ought to include CIL/MIL development actions, we will point out some examples that came to our attention. Far from being a full report on every CIL/MIL initiative, we only intend to show some solid work that has been done to provide a direction for further studies.

We start with research from other fields (psychology, political science, philosophy, etc.) that demonstrate CIL’s importance. Lewandowsky, Ecker, Seifert, Schwarz & Cook (2012), Nyhan & Reifler (2010) e O’Connor & Weatherall (2019) find that undoing the effects of misinformation is a difficult task and that corrections can have an inverse effect, i.e., to strengthen the lie. It is necessary to understand the cognitive and social mechanisms of manipulation (by the *disinformer*) and of adherence (by the *disinformed*) to prepare structured and thoughtful corrections that will convince people.

When people have multiple sources to get their information/news from, they tend to choose the ones that reinforce their world view. This phenomenon, coupled with algorithms action, create bubbles that stimulate polarization and facilitate the belief in fake news because they corroborate a personal or a group world view (Lewandowsky et al, 2012, p. 111; Marshal, 2017, p.17 e O’Connor 2019, p. 17).

Recent efforts of CIL thinkers and practitioners like Tewell (2018), Karen P. Nicholson and Maura Seale (2018) and Nicole Pagowsky and Kelly McElroy (2018) work in the sense of relating theories and practices. This is the very definition of *praxis*, that is, to put theory in practice and to reevaluate practice through theory.

Gardner and Halpern (2016, p. 41) tackle evaluation and offer “an analysis of common classroom-based assessment practices that can be critically focused”; Tewell (2018) studies institutions and teachers’ expectations about CIL; Galoozis e Pinto (2016, p. 164) say that CIL initiatives “can be sites of resistance, naturally aligned with the ideals of liberal education, that encourage all students to engage in critical inquiry”

⁶ Part of the definition of critical competence in information of the mentioned authors.

⁷ The bold marks were made by the authors and do not exist in the original text.

There are a great number of didactic applications of CIL as, for instance, asking students to share personal experiences to demonstrate the varieties of information context (Beilin, 2016), emphasizing the social construction of language when teaching how to use a controlled vocabulary (Seale, 2016), and to engage students through their subject interests in a freirian way like Beilin (2016), Watson & Ellenwood (2016), Witek (2016), and Seale (2016). Many other examples for didactic application of CIL include Polkinghorne (2016), Wallis (2016), Willian (2016), and Tewell e Angell (2016).

In Brazil, a small group of Information Science postgraduate researchers, coming from other undergraduate disciplines such as Communication Studies and Sociology, started to look at this concept, not only as a library education improvement but also as a way to deal with information of all kinds in the algorithmic culture we live in.

After a first appearance of the term in 2015, the first in-depth studies on CIL were two masters' dissertations by Anna Brisola (2016) and Andréa Doyle (2017). While Brisola tackles information and citizenship in the digital age, Doyle looks at information flows and consciousness in a social movement of students. Today, at Brapci (a database dedicated to Information Science papers in the country), there are 17 articles published and indexed with the term critical information literacy.

4 Final Considerations

In present times, we see the consequences of the uncontrollable increase in production and circulation of information. By adding the hyperinformation problem to some old mechanisms of disinformation, we have a fertile ground for the spread of Fake News, which, however, impact they may have, are only one of the multiple ways to disinform.

If the purpose of disinformation is to drown people in news, critical information literacy is to help them survive the informational tsunami. While disinformation campaigns show only one side of the facts as the absolute truth, the critical citizen will seek complementary information to identify other biases in speeches. If disinformation fills and confuses, CIL leads people to seek the complexity of the facts without being overwhelmed by their volume because they manage to prioritize and organize information.

This paper looked at Fake News considering them as fabricated false news articles created with the intention to manipulate people and disinformation as a bigger phenomenon of manipulation of public opinion, with political ends, with perverted (but not always false) information. Critical information literacy was understood as a continuous practice of critical engagement with information by people who cooperate in the collective construction of knowledge, considering that information is socially constructed, that is, it integrates social, political, economic and cultural conditions that need to be understood and, sometimes (in the case of injustices) fought.

Thus, we believe that it is necessary to invest in the development of critical information literacy so that individuals can react to these phenomena at the same time that they seize their citizenships. Well-informed citizens preserve democracy, which is threatened twice. On the one hand, manipulation of opinions and votes through Fake News can, as we have seen, change the political landscape of a nation with a global impact. On the other hand, in the name of a Fake News witch hunt, states can commit excesses, while indulging in the favor's disinformation allows them.

This article offers a compilation of several author's perspectives about the contexts that favors and mechanisms that establish disinformation, to collaborate with the construction of a civic reaction. One of the most efficient strategies to prevent people from believing in fake news is to warn them that the news can be fake. It is to this general alert state that we wish to contribute.

The consciousness obtained by a true critical citizenship is the driving force for liberation from hegemonic control as well as for a political performance that indeed benefits the people, not the powerful. Here, we join this struggle by proposing another understanding of the phenomena and the differences between Fake News and disinformation. We understand that critical information literacy can help the critical citizen to stand in front of information and to deal with it adequately and preferably also ethically and consciously.

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