

“Imbecilization” in the disinformation society: what can information literacy do about it?

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ABSTRACT

The article discusses some points about the current state of disinformation in information processes, especially in the media context. Globalization and its constant movement, of a socially asymmetrical and separatist nature, drives collective discrepancies and opens the way for what it has been called collective “imbecilization.” At this juncture, the wide-open phenomenon of disinformation in society results in excessive manipulation and distortion of information. Therefore, this discussion presents, through a bibliographic survey, the urgency of information literacy development – whose assumption consists of lifelong learning – aimed at the informational dysfunction present in the postmodern societies. Such development

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is denoted as a form of remediation and not the absolute eradication of the problem, since it is essential to preserve critical and self-critical thinking in order to reduce and control the quality of the information consumed and shared. It is then asserted that efforts to combat the so-called imbecilization and informational dysfunction need to occur in different spheres of social life, and involve the multidisciplinary fusion of technology, education, culture, economics and politics.

Keywords: Disinformation; Information Society; Informational Dysfunction; Information Literacy (IL)

“Imbecilización” en la sociedad de la desinformación: ¿qué puede hacer la alfabetización informacional al respecto?

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RESUMEN

El artículo analiza algunos puntos sobre el estado actual de la desinformación en los procesos de información, principalmente en el contexto mediático. La globalización y su constante movimiento, de carácter socialmente asimétrico y separatista, genera discrepancias colectivas y abre caminos a lo que se denomina *imbecilización colectiva*. En esta coyuntura, el fenómeno ampliamente abierto de la desinformación en la sociedad resulta en una manipulación y distorsión excesivas de la información. Por tanto, esta discusión presenta, a través de un relevamiento bibliográfico, la urgencia del desarrollo de la alfabetización informacional –cuyo supuesto consiste en el aprendizaje a lo largo de la vida– orientada a la disfunción informativa presente en la comunidad. Dicha alfabetización se denota como una forma de remediación y no como la erradicación absoluta del problema, ya que es fundamental preservar el pensamiento crítico y autocrítico para reducir y controlar la calidad de la información consumida y compartida. Los esfuerzos para combatir la llamada “imbecilización” y disfunción informativa deben darse en diferentes ámbitos de la vida social, involucrando la fusión multidisciplinaria de tecnología, educación, cultura, economía y política.

Palabras clave: Desinformación; Sociedad de la Información; Disfunción Informativa; Alfabetización Informacional (ALFIN)

INTRODUCTION

It is no secret that the internet (and its digital social networks) is full with information of all kinds – and much of it is of low or dubious quality. It is easy to believe the latest gossip or innuendo or to “get lost” in YouTube videos with pets and games. In contrast, there is a darker dimension of the information found online – there is an excessive amount of web-based information that is hyped and malicious, to the point of being harmful and even dangerous. Although this information is later corrected or refuted, the public’s attention has been captured, the damage has already been done and the dubious information continues to float in the “digital bubble” for future discoveries.

It’s a matter of fact that we live in an era of post-truth, that is, a time when the public is increasingly inclined to believe in information that attracts their emotions and personal beliefs, instead of looking for factual and objective information. People’s consumption of information is increasingly being guided by the affective or emotional dimension of their psyche, as opposed to the cognitive dimension. This post-truth context is seen as one of the reasons why fake news¹ has become practically inevitable and, consequently, arduous to combat and stop the production and dissemination of deliberately false information (Cooke, 2018).

Living at a time when tweets and Facebook status are reported as news, internet users need to be competent users and able to discern the information consumed, being able and prepared to identify the “news” transmitted, as well as to search and find the information that are not being disseminated (Cooke, 2018). In addition, people must be able to describe and understand the difference between the various channels of information transmission. One approach to achieve this level of critical media consumption is to make inputs for lifelong learning feasible in the digital age, or in other words, the development of information literacy.

1 “When considering the definition of fake news, it is also worthwhile analyzing what fake news is not. Fake news is not produced by traditional or established media sources that adhere to journalistic standards and ethics. Fake news does not refer to articles or broadcasts that contain inadvertent mistakes that are promptly corrected and are from organizations that hold reporters accountable for accuracy. Most importantly, fake news is not a story with information or a viewpoint that a consumer does not like or agree with. [...] Fake news is primarily authored by opportunists who seek financial gain or hyper-partisans who want to influence political beliefs. Its dissemination is often aided by social media, automated bots, and especially by humans responding to inflamed emotions. Whether the pernicious authors seek to influence public opinion or generate advertising revenue, the content is cleverly designed to provoke outrage and reinforce prejudices. The fake news that information professionals must train patrons to detect is not intended as satire or a practical joke. It is 100 percent false and designed to provoke its audience.” (Watson, 2018: 93-94.)

For this purpose, we consider the premises that (1) none of these phenomena is new or recent, whose upward proportion was due to the equally exponential development of Information and Communication Technologies (ICT); (2) the “war” against disinformation is not an easy and/or a mechanical task, as it involves issues intrinsic to the limits of freedom of expression and censorship in the media context; and (3) in the recognition of information literacy as an angular tool to the everyday information problems. Therefore, information literacy must be seen as essential in human preparation for the critical analysis of the information received, in addition to discerning the relevance, reliability, pertinence and context presented (Brisola and Doyle, 2019).

BACKGROUND

At the end of 2016, the Oxford Dictionary highlighted the term “post-truth” as the word of the year, being defined as related to or manifesting circumstances in which objective facts are less influential in shaping public opinion compared to appeals to emotion and belief folks (Anderson and Rainie, 2017).

The international political situation, e.g., the presidential election of the United States of America and of Brazil highlights how the digital age has been exponentially affecting news and cultural narratives. Current information platforms feed the old human instinct of the need to find information that matches their personal perspectives: a 2016 study that analyzed 376 million interactions by Facebook users including more than 900 news agencies found that people tend to search for and strongly believe in information that fits their points of view (Anderson and Rainie, 2017).

That said, it is understood that living in this contemporary world makes us potentially vulnerable targets in accepting and acting, sometimes, indirectly, according to disinformation. However, the notions of mobilizing and manipulating information are historical characteristics present long before modern communication established standards that define news as a genre based on particular rules of integrity (Anderson and Rainie, 2017; Unesco, 2018).

According to Unesco (2018), the 21st century saw the surge in information on an unprecedented scale. New and powerful technologies simplify the manipulation and manufacture of content, and social networks incessantly amplify falsehoods propagated by states, populist politicians and dishonest corporate entities, as they are proliferated and shared by non-critical audiences (Unesco, 2018).

However, digital platforms have become fertile ground for network advertising, including armies of trolls² and haters³, triggering the following question: what will happen to the online/social information environment in the following times? (Anderson and Rainie, 2017; Unesco, 2018). And more: how can science, especially in the case of applied social ones, as in the case of Information Science, empirically become a filter for the collective discernment of information acquired, consumed and shared?

Although times and technologies are different and modernized nowadays, history provides a view of the causes and consequences of the contemporary phenomenon of “information disorder”, something that has become regular in today’s social life. The conception of preventive instances, even if palliative, is important to measure in some way the recurring damages of the present informational “liquidity.” It is also necessary to understand that the manipulation of information is due to ages; however, the birth and evolution of some sciences/technologies are recent (Unesco, 2018).

The social trajectory followed also points out that the hidden forces in the disinformation process do not necessarily expect to persuade the media or wider audiences about the truth of the false allegations, any more than they doubt the status of verifiable information produced by professionals. This confusion means that many news consumers feel increasingly empowered to choose or create their own “facts”, sometimes aided by politicians, for example, who seek to protect themselves from legitimate criticism (Cooke, 2018).

Thus, the globalization process that has been going on since the end of the 1990s ostensibly points in this direction: what is most globalized are globalizing forms of social disinformation/asymmetry. Above all, information and knowledge are ambivalent: “[...] it has always been our most decisive weapon of emancipation, but it is no less of colonization” (Demo, 2000a: 37). Thus, if the distant are the chances of these being better distributed, their elitizations stand out, mainly nowadays.

In the context of post-modernity and post-truth, and also with the proliferation of new technological tools, the need for the development of current skills for the access and conscious use of information, i.e., information literacy, concerning the problems of digital functional illiteracy and such disorder in informational ways.

- 2 Term used as slang on the internet, designating a person whose behavior or comment destabilizes a discussion. On the internet, troll is that user who provokes and infuriates other people involved in a discussion on a certain subject, with unfair and ignorant comments. The main goal of troll is to provoke the anger and wrath of other internet users (Unesco, 2018).
- 3 Basically, it means “those who hate for free”. The term is widely used on the internet to classify some people who practice cyber bullying or cyber harassment (Unesco, 2018).

Such literacy, recognized as well as a metaliteracy⁴ due to its multidimensional character, is based on relative foundations, usually in the development of skills for the use of tools and technology; summarizing the techniques and procedures related to the processing and distribution of information (Belluzo, 2018). Therefore, the article's main purpose, through current international bibliographic research, is to present some guiding points on the development and effective use of information literacy in the midst of the so-called "disinformation" society, including related aspects, such as time/space, globalization and social power.

METHODOLOGICAL PROCEDURES

The methodological procedures were established through the purpose as a qualitative, exploratory and descriptive research, as it seeks to discuss the theoretical-conceptual assumptions and the problems of the themes involved, that is, the issue of imbecilization caused by misinformation and possible relationships with information literacy, including other inherent issues. As for the means, the study is classified as bibliographic, since it used reading, analysis and interpretation of concepts and theories about the themes brought up. It is also a "baseline survey", because "[...] offers elementary data that support the realization of more in-depth studies on the theme" (Gonsalves, 2001: 65). The data for discussion and analysis were extracted from books and scientific articles with international coverage on the topics exposed.

DISCUSSION

Social asymmetry, globalization and imbecilization

Bauman (2001) seizes that the compression of time/space ends the multifaceted ongoing transformation of the human experience parameters. Globalizing processes, in this sense, do not denote the presupposed effects. The uses of time and space are clearly differentiated and differentiating: globalization

4 According to Mackey and Jacobson (2014), metaliteracy "expands the scope of traditional information skills (determine, access, locate, understand, produce, and use information) to include the collaborative production and sharing of information in participatory digital environments (collaborate, produce, and share) prevalent in today's world." This approach requires continuous adaptation to emerging technologies and an understanding of the critical thinking and reflection necessary to get involved in these spaces as information producers, collaborators and distributors.

has the asymmetric power of division and unity; “[...] divide while uniting – and the causes of division are identical to those that promote the globe uniformity.” (Bauman, 2001: 20).

In the dynamics of cyberspace, bodies are useless instruments, “[...] although cyberspace is decisively and inexorably interested in the lives of bodies.” (Bauman, 2001: 21). There is no appeal against the absolute and recurring truths of the “cyberspace paradise” and nothing that happens outside this axis can question its status. At the height of cyberspace, cyber-celestial bodies do not need to be majestic physical bodies, nor do they need to arm themselves with vigorous material weapons: they have no connection with their terrestrial environment in order to decree, found or manifest their power.

What these bodies need is to abstract the geographical/physical locality, now stripped of social meaning, incorporated into cyberspace, thus reduced to a merely physical terrain. They also need the anonymity of this isolation, or “[...] a condition of non-neighborhood, immunity in the face of local interference, a guaranteed, invulnerable isolation, translated as security for people, their homes and their playgrounds.” (Bauman, 2001: 22).

In a similar manner to the power network, Demo (2000a: 37) visualizes that power, “[...] sneaks around the edges, seeks not to be perceived to influence so much more, searches the obedience of the other without their perceiving it, invents a privilege that the victim thinks it is a merit, uses the best knowledge to imbecilize.” Therefore, it would be no different for information: disinformation may be your main desire.

When observing the simple equation in which power means information, and information is the raw material that dictates the rules of the global market, the understanding of the information economy is validated, “[...] which, moreover, greatly facilitates the volatility of capital, homeless, globalized. This brand breaks the naive expectations that globalization would bring benefits shared with everyone globally.” (Demo, 2000a: 38). Thereafter, the phenomenon of surplus value is still present, even if its dynamics is configured in another historical instance, in which the production and diffuse use of information/knowledge have become the driving factor (Demo, 2000a).

Demo (2000b) has already sharpened how routine the complaint of the existing information overload is, wrapped in an atmosphere without control or restraint. In this sense, we may think that this is information, but in fact it is a sneaky manipulation to enact large-scale disinformation. The act of misinformation, thus, is also part of the information process, being capable to use the best source of knowledge to gather the most refined *imbecilization* process.

The point is that it is so well developed that it does not identify itself as such. Demo (2000a) understands this process as the inheritance of knowledge:

as the reality is known, it highlights what the method can capture and seeks interpretive impressions permeated by interest, which is generally ambiguous. And since manipulation is an intrinsic part of the informational tessiture, what has emerged the best until today is the implementation of open strategies for some type of control, knowing that absolute control is not viable and undesirable. To correct the interpretation, then, counter-interpretation is used even under constant risk, as well as the congruence of criticism is found in self-criticism. Soon,

[...] the least harmful manipulation is that offered to open discussion. The manipulative selectivity of information appears in the emphasis on news favorable to the status quo, as well as in the way of arranging the news and in the rhetoric and aesthetics that surround it, particularly in the announcers and special effects. It is imbecilizing in the sense that it blocks our critical view, making us believe that the most attractive way of giving news is one's own. (Demo, 2000a: 40.)

That said, here is the criticism brought by Demo (2000a) in five instances, about the manipulative and complex character of information:

1. Society remains in a constant state of disinformation, either because of residual, official information or because there is too much information.
2. There is a notable division of information, separated between classes, whose variation depends on the purchasing power of each one. Someone who may have access to quality formal and informal education, hypothetically, has greater insight to compare different sources and cultivate a little more critical thinking.
3. There is an overload of "imbecilizing information", either due to distortion or media exploitation. Society, in addition to reading less and less, or almost nothing, due to hypertextual imperialism, which possibly sabotages the critical spirit.
4. Lack of protection the public's subjective/real interests. It is vital that society is properly positioned to the media, so that commercial interests are not exclusively prevailed.
5. Finally, the information system of the new media is still linked to orthodox contexts, and when arranged in digital media, specifically speaking, it can be converted into an instructional mode.

Although such premises were elucidated more than two decades ago and may seem catastrophic, it is understood that this is about 'human divide' (i.e., the digital gap) in postmodernity, because the digital divide oversimplifies

the real issues and neglects the 'humanness of the divide', the capacities, the intellect, and the skills, or the willingness to use technology, which in turn makes it difficult to find real solutions (McKeown, 2016).

Furthermore, the so-called digital gap is not characterized as a separation in itself, but as a facet of the old well-known socioeconomic segregation, which distinguishes excluded from those included. Furthermore, it also seems to want to hide between the lines that the term digital, when considered in its complexity, involves other dimensions related to access to machines and their resources, as well as the ability to interact with them, thus entering into this complex, dimensions such as the level of income, education, imbecilization and information literacies, which in turn, reflect public policies, especially those of income distribution, education and information (Fróes Burnham, 2014).

Technologies, after all, are not simply neutral objects existing alone without any effect on their surroundings. Technologies are inherently social. They make metaphoric statements about the relationships between humanity and the natural world, registering in physical form the various socio-cultural interactions that contribute to their being. The real message of a technology is not what it, but rather the changes in scale, pace of pattern that it introduces into human affairs (Toles-Patkin, 1988).

Knowing that human relations are inherently political, involving power relations whose objective is to persuade other people to act, obey, maintain the relationship or think in a particular way (Marshall, 2017), the main thing is to be attentive to ambivalent circumstances in order to develop attitudes, skills, and abilities to mitigate existing information manipulation.

Globalization, informational poverty and informational dysfunction

Among the factors proliferating in globalization, Bauman (2001) infers that an important role was played by the transport of information, being the one that does not use physical movement or only uses it in a complementary way. In a similar and constant way, technical means emerged that allowed information to travel independently of its physical carriers, and also free of the objects it informed: spaces that freed the signifiers from the control of meanings.

Globalization, as a fast movement, has given the extremely wealthy more opportunities to rapidly increase their fortunes. The social strata that have express hierarchical advantages use the latest technologies to move large sums of money around the world with great speed and with endowed efficiency. On the other hand, technology does have and does not have a significant impact

on the lives of the world's peripheral populations. In fact, globalization is seen as an uneven paradox: it is superabundant for very few, but it excludes and marginalizes a large part of the world population (Castells, 1999).

Hierarchies, therefore, can further restrict the flow of information, as people can be backlashed for providing unwanted but accurate information to people above them in the hierarchy and also rewarded for providing less accurate but desired information (Marshall, 2017). Due to information limitations and since the impacts on poverty occur in the long term, assessments on poverty reduction have been unambitious, focusing on more limited variables, such as income or spending behavior of the poor ones. Traditional methodologies focus on establishing some criteria for identifying the poor and other criteria for assessing aggregate poverty (Barja and Gigler, 2006).

For this reason, information must be seen as not only a source of knowledge, but above all, a source of expansion of economic, social, political and cultural freedoms. It can be said that access and use of information and communication is an essential condition for development, because it crosses all its dimensions. Likewise, it is understood that informational poverty (arising from the absence and/or authenticity of available information) and communication is a dimension of poverty, with the characteristic of permeating the other dimensions of poverty, so that its effective reduction is interdependent other dimensions (Barja and Gigler, 2006). In addition, and according to McKeown (2016: 3),

Information poverty suggests a scarcity of information that is vital to citizens' ability to engage effectively in society and make informed life choices. The concept of information poverty, in which individuals suffer from a lack of needed information, is an issue of growing importance in contemporary society, with its enhanced focus on information and communication technology (ICT) for personal and social development. In contemporary society the need to be online and to access digital information means that ICT is now viewed as an essential tool to reduce poverty and for economic and social development. Having access to ICTs and the Internet, as well as the ability to use these, are now vital assets to escape poverty and hence be included in society. Furthermore, individuals who experience information poverty are less able to access the information they need to improve their social, economic and cultural positions; as a consequence, they are often at risk of exclusion from participation in wider society.

In this view, some elements intrinsic to informational poverty are cited, according to Britz (2004):

- It is directly related to the inaccessibility of relevant and appropriate information;
- Determined by the absence of a well-developed information infrastructure;
- Closely linked to the level of individual development of information literacy;
- Correlated by the attitude/approach towards information and the value attributed to it;
- A global phenomenon, which may differ from one context to another;
- Related to the lack of material inputs to access information; and
- Not just an economic event, having a vital influence on the cultural and social spheres of society.

When we think of informational poverty as a complex and ubiquitous dimension in the 21st century and disseminated by technological resources, we can relate this perspective to the informational dysfunction, caused by the vulgarization of suspicious content – also the epicenter of the infamous fake news. Much of the fake news discourse combines two notions: *misinformation* and *disinformation* (Unesco, 2018).

It may be useful, however, to propose that the misinformation is that false information that the person disclosing it believes to be true. Therefore, although false, it is still information and interestingly, it can still be informative (Karlova and Fisher, 2013).

Disinformation, in turn, is false information and the person who discloses it knows that it is false. It is an intentional and deliberate lie, and results in users being actively misinformed by malicious people. They are usually distortions or parts of the truth. It is not a simple action, but a complex of actions that construct an intentionally determined scenario. Disinformation involves decontextualized, fragmented, manipulated, biased and removed information from its historicity, which erases, distorts, subtracts, labels or confuses reality (Brisola and Doyle, 2019).

As gossip and rumours abound, it is difficult to distinguish among information, misinformation, and disinformation. People enjoy sharing information, especially when it is 'news'. Although they may not believe such information themselves, they take pleasure in disseminating it through their social networks. In this way, misinformation (inaccurate information) and disinformation (deceptive information) easily diffuse, over time, across social groups. Social media, such as Twitter and Facebook, have made dissemination and diffusion easier and faster. High-impact topics, for example, health, politics, finances, and technology trends, are prime sources of misinformation and disinformation in wide-ranging contexts, for example, business, government, and everyday life. (Karlova and Fisher, 2013: 2.)

However, a third category could be called mal-information, i.e., the information being based on reality, but used to cause harm to a person, organization or country. It is important to distinguish messages that are true from those that are false, but also those that are true (and those with some truth), but that are created, produced or distributed by “agents” who intend to harm rather than serve the public interest. This mal-information, like real information that violates a person’s privacy without a public interest justification goes against professional standards and ethics (Unesco, 2018).

Despite the above distinctions, the consequences in the information environment for society can be similar (for example, corrupting the integrity of the democratic process, etc.). In addition, particular cases may exhibit combinations of the three concepts exposed, and there is evidence that individual ones are often accompanied by others (for example, on different platforms or in sequence) as part of a broader information strategy. However, it is essential to maintain their specific distinctions, to the detriment of causes, techniques and solutions, which may vary accordingly (Unesco, 2018; Wardle and Derakhshan, 2017). For a better view of what was discussed about the three instances of informational dysfunction, *Figure 1* illustrates this panorama.

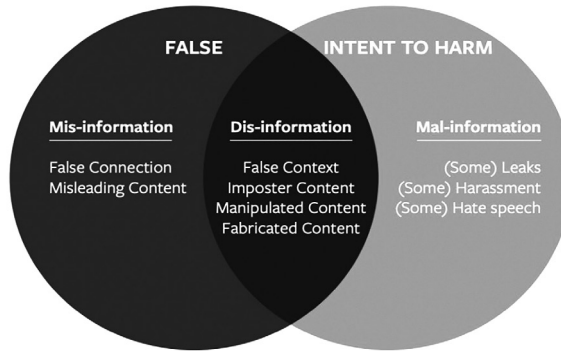


Figure 1. The pillars of informational dysfunction
Source: Unesco (2018)

By this logic, it is understood that the proliferation of informational dysfunction in the post-truth era meets the reflection brought by Cooke (2018) about the ubiquitous contexts in which information exists. In addition to the context produced by the financial and media dimensions, the concepts of post-truth and truthfulness also emphasize that there is a wide range of motivations and emotions that motivate the daily consumption of information.

The search, the selection, the prevention and the use of information sources (which are part of the continuum of informational behaviors) contribute to the understanding of how information is consumed daily, in addition to providing an additional understanding of why consumers become vulnerable and susceptible to fake news (Cooke, 2018).

Thus, Wardle and Derakhshan (2017) assert that the most “successful” problematic content in this chain is that which “plays” with people’s emotions, encouraging feelings of superiority, anger or fear. This is because these factors generate new shares between people who want to connect with their communities and “tribes” online. Basically, this is what Castells (1999) discusses when he points out the individual inclination to search for primary identities that represent something, albeit in a rough way: a political, religious, ethnic, national identity, etc., enabling the internal feeling of security and belonging to the “tribe”.

Therefore, it becomes easy to understand why the affective and emotional dimensions are latent on digital social media platforms, even though there is a reverse movement of fact checking and demystification: these are designed for people to interact through likes, comments, shares and personal posts (Wardle and Derakhshan, 2017).

That said, other phenomena are presented as examples of contemporary contexts favorable to the problem (Brisola and Doyle, 2019):

- *Hyperinformation*: gigantic volume of information that makes filtering and selection difficult and can lead to exclusion due to excess.
- *Hypervelocity*: an uninterrupted rhythm of information flows that leads to the difficulty of delving into a subject; superficiality caused by speed.
- *Postmodernity*: the relativization of science, truth and reality.
- *Asymmetric information*: companies have/process more information about governments/people than governments that, in turn, have/process more information about people than people themselves.
- *Attention economy*: readers/users/public are no longer consumers, but goods that are used by platforms to “work” and consume ads.
- *Blatant ignorance*: a stimulation of mediocrity in which formal knowledge is considered superfluous and haughty.
- *Image fetishism*: images replace the context and the deepening of a critical view of events.

The discussion arranged so far has attempted to underline how informational dysfunction is more present in everyday life than we have reflected, adversely affecting democracies and open societies. Hence, societies and

people presumably need to thrive on their skills, attitudes and behaviors in the face of the aforementioned dysfunction. Furthermore, they need to understand the complexities and antics that are presented daily in relation to the scenario, regardless of the media support (Unesco, 2018).

To this end, and in this context, the ability to find and use information is vital, and beyond these dimensions, also understand communication, collaboration and networking, including issues such as social awareness in the digital age that is experienced, the knowledge of information security and the creation of new information, etc., requirements that are permeated by critical thinking (Vitorino and Piantola, 2019) and by the evaluation of the information obtained – basic principles of information literacy (Belluzzo, 2018).

In a timeless conceptualization, it is pointed out that its constitution is involved in a permanent process of interaction and internalization of conceptual, attitudinal principles and specific skills as references for the understanding of information and its amplitude, “[...] in search of fluency and capacities necessary for the generation of new knowledge and its applicability to the daily lives of people and communities throughout life (Belluzzo, 2007: 39-40).

It is inherent to the citizen role in society, therefore, that people know how knowledge is organized, how to proceed to seek excellent information, how to use it intelligently and how to actively participate in the communication process through the knowledge generated. Citizens, as well as information professionals, need to be educated in accessing and using information concisely (Belluzzo and Feres, 2016).

It should be noted also that information literacy has different conceptions and approaches: digital, whose conception with an emphasis on Information and Communication Technologies (ICTs); the information itself, with conception with an emphasis on cognitive processes; and social, with an emphasis on social inclusion, consisting of an integrated vision of continuous learning and the exercise of citizenship (Belluzzo and Feres, 2016).

In accordance with the Australian and New Zealand Institute for Information Literacy (ANZIIL, 2004), there are five basic standards to commensurate, a priori, in the evaluation of information literacy, being related to the insertion, development and evaluation of principles and concepts:

- a) *Standard 1:* The information literate person determines the nature and extent of the information need.
- b) *Standard 2:* The information literate person accesses the necessary information effectively.
- c) *Standard 3:* The information literate person critically evaluates the information and its sources.

- d) *Standard 4*: The information literate person, individually, or as a member of a group, uses the information effectively to achieve a goal/obtain a result.
- e) *Standard 5*: The information literate person understands the economic, legal and social issues regarding the use of the information; access and use it ethically and legally.

It is essential that such metaliteracy is developed in people, since the machines are not enough to diagnose the ideological bias of the information available and of great impact on digital social networks. Human judgment is something that machines or technological resources do not yet have. Efforts to combat the so-called imbecilization society and informational dysfunction need to occur in different spheres of social life, involving the multidisciplinary fusion of technology, education, culture, economics and politics (Ottomcar et al., 2019) that propels empowerment. In turn, empowerment allows people to take charge of their own identity, and then be able to recognize, indicate and combat any type of manipulation, e.g. the “wolves in sheep’s clothing” of media.

The metaliterate person, in a post-truth reality, is a consumer who critically assesses the authenticity of the information and thoroughly investigates the ideological bias while self-evaluating his own preconceptions. As active learners in social spaces, they are participative as collaborators, consistent and reflective in their communities, allowing them to gain new insights and the ability to identify informational gaps and inconsistencies. This may mean the ability to recognize the difference between the various media attempts to capture and interpret the salient reality, on the one hand; and, on the other, the deceptive instances that exploit the news format, violating professional standards of verifiability (Jacobson, Mackey, and O’Brien, 2019).

In another perspective, the aforementioned development in this role can be consolidated such as the “inoculation theory” (Cook, Lewandowsky, and Ecker, 2017), whose assumption proposes that people be inoculated against disinformation (or misinformation) by being exposed to a refuted version of the already beforehand. Just as vaccines generate antibodies to resist future viruses, inoculation messages protect people with counter arguments that potentially transmit resistance to subsequent dubious/malicious information, even if that information is congruent with pre-existing attitudes (Cook, Lewandowsky, and Ecker, 2017).

There are two elements to an inoculation: (1) an explicit warning of an imminent threat and (2) a refutation of an anticipated argument that exposes the impending fallacy. For example, an inoculation may include (1) a warning that

there are attempts to question scientific consensus on the spread of a disease and (2) an explanation that a technique employed is valid by a large group of “false experts” to simulate the lack of consensus. When exposing the fallacy, disinformation (in this case, the lack of manipulated consensus) is presented in a weakened way. Therefore, when people subsequently encounter a misleading argument, inoculation provides a counter-argument to immediately discard false information (Cook, Lewandowsky, and Ecker, 2017).

The purpose of this intervention is to stimulate critical thinking by explaining argumentative techniques, encouraging people to go beyond superficial and polarizing understanding and to engage in a deeper and more strategic examination of the information presented. A consequence of this approach is that generally structured inoculations can potentially neutralize a series of misleading arguments that employ the same technique or fallacy (Cook, Lewandowsky, and Ecker, 2017), such as information literacy.

In practical terms and according to the High Level Expert Group on Fake News and on-line disinformation (Hleg, 2018), information literacy seeks to ensure that the information ecosystem, especially the digital one, is reliable: a critical audience will hypothetically encourage and charge media companies/users to continuously improve their products and services. It is an important line of action in the fight against disinformation, as it can empower both individual users, as suggested, and the mass strengthening of users, resulting in greater social resilience against disinformation and other disorders of the real-time information age.

There is, however, a need to think more strategically about how information competence should be incorporated in different and specific contexts (such as in underdeveloped countries), what it has to do with and why it should be used in the face of this phenomenon. The challenges that prevent the emergence of effective large-scale information competence policies/programs include, above all, the gap in the diversity of education systems and the lack of focus in national curricula on continuing literacy. The lack of collaboration on adherence to practices, separatist approaches to academia, civil society (dis)organizations, the lack of engagement by educators and the media aggravate this scenario (Hleg, 2018).

Discerning that informational dysfunction can take advantage of informational and media cultures, whose news can be falsified, documents can be modified without leaving a visible trace and data can be distorted with robots acting as humans, the competence in information developed in various articulating instances it can become a solution in the face of the process of informational dysfunction, as shown in *Figure 2*.

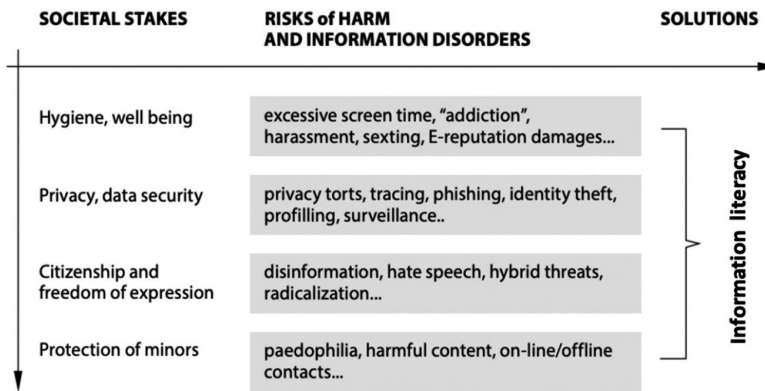


Figure 2. Informational dysfunction and the "remediation" through information literacy
 Source: adapted from Frau-Meigs (2019)

Hereupon, information literacy can also propose pedagogical strategies to build social resilience and empowerment, in addition to promote useful techniques of refutation and diversified counter-narratives that do not alienate the followers of disinformation, but bring them back to the "flock" of critical people and able to inhabit virtual environments in a responsible and conscious manner (Frau-Meigs, 2019; Righetto and Vitorino, 2019).

Furthermore, for information literacy to be effective, it must be included in school curricula, with clear methods of evaluation and comparison between countries and reflected in educational classification indicators (Karlova and Fisher, 2013). Thus, this must be a multilateral approach, including public-private partners, the State, its representatives and players in the media and digital platforms market. In order to disseminate information literacy as a practice (and not just a mere status) in the context of informational dysfunction, it is recommended, according to Hleg (2018):

- 1) *Actions promoting the reassessment and readjustment of contextual educational policies, including the development of this metaliteracy and school rankings as a key literacy for lifelong learning.* Such parameters would serve as a reference for the future educational and curricular reforms adopted. Thus, the State and governmental/educational bodies should recognize information literacy as the central focus of continuous literacy today, gradually adding it to school curricula, and being seen as a priority.

- 2) *Actions to support information literacy programs for society in general, aiming at efficiency, best practice and evaluation.* For efforts to be effective in a rapidly changing field, best practices, considering different contexts and evaluation are essential. Furthermore, organizations currently involved in the development of practices in information competence must work collaboratively through civil society, the academic axis, educational authorities, relative institutions and health professionals. These collaborations should have the central objective of maximizing interdisciplinary efficiencies. Depending on the country's educational system, non-governmental organizations may also play an important auxiliary role in the system.

Such actions should include, with the same emphasis, regional and networked approaches. Therefore, it is necessary to encourage and support initiatives that promote information literacy to respond to the specific needs of a specific region, focusing on interdisciplinary work for a satisfactory result. Similarly, important is the design of regular reports on the competence of States and all interested parties, in order to promote assessment, sharing practices, monitoring disinformation efforts and project development (Hleg, 2018).

The result of these actions, however, may become indicators for understanding informational dysfunction. From the results obtained, it will be possible to analyze and interpret the information obtained, comparing them with the pre-established objectives and goals. The consideration of other parameters is also relevant, in order to verify its scope and identify the needs for readjustments in future incursions (Belluzzo, 2018).

It is also important to highlight that the dialogue concerning the ability to find and effectively use information and related programing is no rare. The academic community has long recognized the power of knowledge and the need to equip the population of the information age to effectively employ information. The so-called "elephant in the room" is why information literacy is lacking in spite of existing educational efforts? Five logical points of impasse stand between information literacy and an information literate public. They are, according to Osborne (2018):

1. An attention deficit regarding need to be information literate (the "Attention Deficit").
2. An awareness deficit of the need to examine and read critically the information one consumes.
3. The existence of a confirmation bias in regards to information consumed.

4. The increasing sophistication of the business model for fake news or inferior information.
5. A fundamental change in how we acquire information.

If the goal is to create an information literate public that possesses the skill to evaluate information for authenticity and fit prior to use, then one must address the points of impasse. Reinforcing the traditional programmatic themes of source evaluation, currency, evaluation of expertise, teaching consumers to engage in a critical examination of the content and discussion of available tools for verifying content, combined with an understanding of how one consumes news, creates an effective program for educating information literate consumers (Osborne, 2018).

That said, it is considered that the vital factor in the development of information literacy in this scenario is obtained by collaboration and empathy, that is, in the sensitivity aroused by those responsible for proliferating this metaliteracy to people and societies. Those responsible, therefore, must raise efforts and promote programs, courses, training etc., of information literacy, aiming at the quality of the information that surrounds us and mainly covering the collaborative dialectic.

FINAL CONSIDERATIONS

The imbecilization in the disinformation society can be described as a process by which people come to depend so heavily on technology to conduct their everyday lives that they become slowly but systematically stripped of their fundamental intellectual integrity, initiative and human dignity. Imbecilization of culture serves as a catchall term for socio-cultural effects that can be discerned in many arenas of everyday life. Five elements combine to define this process: (1) the mechanization of functions previously completed by humans, (2) the consequent deskilling of the individual, (3) mechanical and mediated substitutes for experience, (4) fragmentation of information, and (5) the ease of accomplishment (Toles-Patkin, 1988).

We are not trying to say that all technology is evil; rather, we recognize that every technology can be useful in a lot of situations, and that any dangers associated with their use follows from an imbecile and integrated use of those technologies across the social structure.

In this sense, being an information literate person is necessary to dealing with the imbecilization and the ambivalences of societies: to learn is to stand out from the curve “[...] straight and evident, because neither knowledge is

straight, nor life is a linear path. Knowing how to create depends, in large part, on the ability to navigate in murky waters.” (Demo, 2000a: 41). The fluidity of information, as part of the globalization movement, is a constant source of creation, change, rupture. The risk of manipulation is inherent to the informational nature, but it is in coercion that it is identified and reduced. The information society informs less than imagined, or rather, informs by imbeciliating (Demo, 2000a).

Even so, there are protections and actions that favor the change of individual and social behavior in face of the issues mentioned. The focus of information literacy to informational dysfunction is configured in the possible possibility of awakening to collective and individual lucidity. As mentioned earlier, this is not a permanent solution, but a continuous remedy for today’s society. After all, its purpose is to deal with information overload issues, as well as the development of critical thinking, which will enable people to develop and use information appropriate to each situation.

It is not a matter of making each person a professional researcher, but a “natural researcher”, who knows how to handle the information obtained in his surroundings. The contents, concrete or dubious, are consumed in time, while the ability to know how to think needs to remain alive, more than ever. Knowing how to think is essential for a dignified life.

We believe that it is necessary to invest in the development of this so-called metaliteracy so that societies and their components can react to these phenomena at the same time that they acquire their citizenship. Well-informed citizens preserve democracy, which is constantly threatened. Therefore, its expansion is essential, since it is the starting point for the development of critical thinking and good personal practices for online speeches and, consequently, also in the offline world. The objective is to build citizenship based on fundamental rights, such as freedom of expression, and to allow active and responsible participation in the online sphere.

The current information age undoubtedly requires lifelong learning due to the speed of change. Information literacy cannot, therefore, be limited to generations born in the digital age, but needs and must cover all people (Vitorino, 2018; Righetto, Vitorino, and Muriel-Torrado, 2018), who often cannot keep up the dizzying pace of digital transformation.

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