



Article

Emerging Contexts and Teaching in Ibero-American Higher Education: Challenges of the Post-Truth World

Jorge Enrique Delgado¹

University of Pittsburgh, Pittsburgh PA, United States

Abstract

This scoping exploratory review was aimed at analyzing the challenges that the so-called post-truth world represents for teaching in Ibero-Latin American higher education. With the increased access to online information media and social networks, netizens are increasingly exposed and may be more vulnerable to false or misleading information that seeks to generate action from emotions rather than reason (GOSWAMI, 2017, Chronicle of Higher Education). The reference search was carried out in the databases of SciELO and La Referencia, from which 26 titles out of 196 were selected. Combinations of terms such as social media, post-truth, fake news, fact-checking, education, higher education, university, teaching, critical thinking, and freedom of expression were used, with the Boolean “Y” connector. The analysis of the references resulted in six thematic categories: main concepts; realms of fake news; news verification initiatives and methods; theoretical analysis and its relationship with education; studies on the factors, perception and credibility of fake news; and addressing misinformation in higher education. The discussion presents the draft of a proposed pedagogical model to be used in higher education and to address misinformation. Includes: critical thinking habits, democratic dialogue, intellectual skepticism, research skills, use of reliable sources of information, and analysis from multiple perspectives.

Keywords

Higher Education, Pedagogical Model, Postfactual World.

Introduction

This study is situated in what is called the post-factual or post-truth world or era. The challenges posed by the dissemination of fake news and information for Ibero-American higher education, usually through social networks and the media, are explored. Likewise, some experiences and initiatives described in the

¹PhD in Social and Comparative Analysis in Education; Instructor at the Department of Educational Foundations, Organizations, and Policy; Programs' Coordinator at the Institute for International Studies in Education--IISE; Core Faculty of the Center for Latin American Studies; Special Interest Groups' Coordinator at the Comparative and International Education Society--CIES's Office of the Executive Director; University of Pittsburgh, Pittsburgh, Pennsylvania, United States. Editor-in-chief *Universitas Odontologica* journal of the Pontifical Javeriana University; Bogota, Colombia. <https://orcid.org/0000-0002-1127-9516>. jed41@pitt.edu

literature are identified to address circulating information and elucidate its veracity.

1.1 Challenges of false information for higher education

In recent times, the massive dissemination of information in the media, often misleading or false (disinformation), has made it difficult to verify its authenticity. Some of the effects of this tendency are confusion, emotional reactions, and polarization. This phenomenon is known as the **post-truth** or **post-factual** world (ÁLVAREZ RUFES, 2018; BACON, 2018; GOSWAMI, 2017). Some authors, such as Alex Edmans (2017), also call this the “post-data” rather than the post-truth era. He argues that there are three information confirmation biases: accepting a story as fact, accepting a fact as given, and accepting data as evidence.

Edmans’ approach allows us to recognize, first, that people move in silos of content or information, which are shared with individuals with whom they have an affinity and develop common narratives and discourses. We often assume that stories are true because they come from people or sources we trust and because they are accepted as true for repeating them so much. Second, making generalizations from isolated or out-of-context facts also creates problems of accuracy and misinterpretations. An example is in folk medicine, when a person recommends another to take some medicine because it worked for them. Third, contextless data, despite having the potential for generalization, are used according to the user’s interest or understanding.

The massive circulation of false and inaccurate news confuses and awakens emotional reactions that often trigger confrontations between individuals and groups. It shows how much the world today is polarized around political positions and sensitive issues. Daniel Sekulich (2019) argues that deeply rooted and socially pervasive beliefs, such as the denial of climate change (UN CC: LEARN, 2018) and the anti-vaccination movement, make it difficult to reveal and disseminate verifiable facts. These beliefs, constantly aired in public and supported by apparently proven facts or data, are seen as “real” (EDMANS, 2017).

Furthermore, those beliefs can be exacerbated by the actions of individuals or organizations to promote certain narratives and thus influence the opinion of others. Examples of this are found in politics and the election of rulers around the world. Other examples of beliefs and narrative dissemination are perceptions about refugees and immigrants (HAN *et al.*, 2017) and nationalisms (ALTBACH; DE WIT, 2017). Disinformation can spread through distortion, passing from one person to another without verification or as mentioned above, when someone deliberately tries to shape other people’s thinking using inaccurate or false information (SEKULLICH, 2019).

When it relates to education, Grace Karram Stephenson (2019) states that one of the main missions of teachers and communicators is to discover and spread the truth and help students build informed and critical arguments. However, discerning between what is true and what is not is complex, since the understanding of what is true is associated with worldviews, contexts and value systems, and disciplinary knowledge. Educators and communicators often generate controversy when they present content from perspectives that may conflict with the ways of thinking of some groups.

The dissemination of defamatory and caricatural content has become common when it is used to attacks people with a public image. The dissemination of this content is supported by the rights of freedom of expression and of the press. However, they raise questions about truthfulness and intentionality. Questions then arise such as: How to contribute to the common good when what scholars and communicators say, as public intellectuals, is denigrated? As mentioned above, educators and journalists also contribute to the construction of controversial narratives when they serve the interests of specific groups or agendas. This is why it is so important in education to show different positions and dissect them so that students can use their critical thinking and make informed decisions for the personal and collective good. Therefore, one of the great concerns of today is how higher education and journalism can respond to the post-truth world. Therefore, it is worth asking: What should higher education do to promote intellectual habits among students that allow them to discern the veracity of the information to which they are exposed?

2. Methodology

This is an exploratory (FERNÁNDEZ-SÁNCHEZ KING; ENRÍQUEZ-HERNÁNDEZ, 2020) and scoping literature review (GUIRAO GORIS, 2015; WHITTEMORE *et al.*, 2014). The purpose was to make an initial mapping of publications that address the issue of post-truth and fake news in Ibero-American higher education. The review was not exhaustive since the search was limited to the identification and inspection of titles / documents existing in the SciELO digital library of periodicals (<https://www.scielo.org/>) and in the network of open access repositories La Referencia (<https://www.lareferencia.info/en/>). The methodology was inductive (WHITTEMORE *et al.*, 2014), while the titles initially identified and later selected for in-depth review were used to describe, analyze, and create categories based on the literature. The study used the model and methodological guidelines described by Fernández-Sánchez *et al.* (2020) and Whittemore *et al.* (2014). They were:

- 1) **Creating a research question:** How post-truth and false news are studied and transformed into learning experiences in Ibero-American higher education?
- 2) **Establishing inclusion and exclusion criteria to select relevant publications.** Different types of documents available online in Spanish, English and Portuguese, published by authors from and in Ibero-America, were researched. Research and monographs or essays were included; Editorials and historical reports were excluded. Also SciELO's South African journals, languages other than those mentioned above, and topics that were not related to the subject of this study were excluded (e.g., basic education and data/facts verification in information collection instruments).
- 3) **Reviewing and selecting articles.** Both databases were searched using combinations of English terms (Table 1) and with the Boolean connector "AND." The review of titles and abstracts allowed eliminating documents not related to the research question and eliminating duplications.

- 4) **Obtention of data.** The selected documents were read and analyzed to identify the predominant themes and characteristics. For this purpose, keywords and concepts, theories used, fields of application, types of documents and their origin were reviewed.
- 5) **Analysis and presentation of findings.** A descriptive analysis was carried out and the contributions that allowed identifying trends among studies on the post-truth and false news topic in Ibero-American higher education were highlighted.

Table 1 – Search terms in SciELO and La Referencia, number of titles found, and number of articles selected for analysis

Database	Search period	Search terms	Number of titles found	Number of articles selected
SciELO	Nov. 25, 2020-Jan. 15, 2021	(post-truth) AND (higher education)	2	0
	Nov. 25, 2020-Jan. 15, 2021	(freedom of expression) AND (truth)	10	0
	Nov. 25, 2020-Jan. 15, 2021	(fake news) AND (education)	7	3
	Nov. 25, 2020-Jan. 15, 2021	(university) AND (fake news)	3	2
	Nov. 25, 2020-Jan. 15, 2021	(higher education) AND (fact check)	4	0
	Nov. 25, 2020-Jan. 15, 2021	(education) AND (fact check)	9	0
	Nov. 25, 2020-Jan. 15, 2021	(university) AND (fact check)	5	0
	Nov. 25, 2020-Jan. 15, 2021	(social media) AND (fact check)	15	0
	Nov. 25, 2020-Jan. 15, 2021	(higher education) AND (fake news)	1	0
	Nov. 25, 2020-Jan. 15, 2021	(social media) AND (fake news)	17	10
	Nov. 25, 2020-Jan. 15, 2021	(fake news) AND (critical thinking)	2	1
	La Referencia	Jan. 16-Fev. 15 2021	(fake news) AND (education)	30

	Jan. 16-Fev. 15 2021	(fake news) AND (fact check) AND (education)	2	2
	Jan. 16-Fev 15. 2021	(post-truth) AND (teaching)	49	6
	Jan. 16-Fev. 15 2021	(post-truth) AND (education) AND (social media)	15	0
	Jan. 16-Fev 15. 2021	(post-truth) AND (higher education)	12	0
	Jan. 16-Fev. 15 2021	(post-truth) AND (university) AND (teaching)	13	0
Total			196	26

Source: elaborated by the author.

The references found were published mainly between 2018 and 2020, which may suggest the relevance that post-truth and misinformation issues have gained in recent years. Six thematic categories were created: Main concepts; fake news scopes; news verification methods and initiatives; theoretical analysis and its relationship with education; studies on the factors, perception, and credibility of false news; and approaching disinformation in higher education. The findings are presented below.

3. Findings

3.1 Main concepts

Fake news is mainly studied by communication disciplines. Some of the publications covered in this review present the most relevant concepts. Muriel-Torrado and Pereira (2020) analyze the concepts of disinformation defined by UNESCO and correlate them with a behavior model. The first is **disinformation**, which refers to false information intentionally created to harm people or entities. The second concept is **misinformation**, that is, false information that is not intended to harm. Another concept is **misleading information**, real information used to harm.

These three concepts can be presented as fake news whose contents are disseminated on the web. Likewise, there is a general contextual category, **post-truth**, which is related to people's responses to news or information based on feelings and beliefs and not on facts (MURIEL-TORRADO; PEREIRA, 2020). Thus, people tend to make decisions and act based on emotions generated by misleading and confusing information, rather than reason. Other authors, such as David and Martínez-Riera (2020), differentiate "factual truth," that is, based on facts, from "opinions" which are generally unfounded comments and are often not supported by facts (DAVID; MARTÍNEZ- RIERA, 2020).

In an analysis of the circulation of false news in Brazil, Ripoll and Canto (2019) review the legal liability related to misinformation and the mechanisms to combat it. They conclude that there are still no solutions for the circulation of fake news and that importance should be given in education. The challenge is to understand and assess complexity without risking democracy.

3.2 Scope of fake news

Disinformation and false news circulate and affect institutions whose work is related to information, education, science, and society (MURIEL-TORRADO; PEREIRA, 2020). Fake news originates from digital platforms, research organizations, civil society, and the media. They also come from governments and state agencies and international organizations (DELMAZO; VALENTE, 2018). Two social spheres were particularly flooded by false news: politics and the Covid-19 pandemic.

3.2.1 In politics

Santos (2020), when analyzing recent political situation in Brazil, begins his essay by indicating how there is a worldwide concern about the impact of fake news on decision-making processes. Well-informed constituents who are critical and certain of the information they receive are necessary. The internet and social networks have contributed to this concern, and it is suggested that they be governed and treated responsibly during elections. On the other hand, Rodrigues and Ferreira (2020) analyze populist horizontal (Spain) and vertical (Brazil) practices that are used through digital means. In Brazil, vertical populism use social media to spread political agendas and false news. In Spain populism is horizontal, as the practices are deliberative. The electorate is the recipient and manager of the agenda. This article does not address the issue of education itself, but it is helpful to explain ways false news is used to influence public opinion. Understanding this is key to any educational initiative.

3.2.2 Covid-19 pandemic

The Covid-19 pandemic has had a major socio-economic and political impact around the world. Ideally, communication should be transparent and trustworthy. However, fake news has multiplied and now, somehow, each person feels like an expert to express their opinion and act. An example is the anti-vaccination movement, which can be analyzed using communicative models. From this point of view, official narratives may or may not collaborate with the media.

It is up to governments to create safety references and attend to society's concerns (VASCONCELLOS-SILVA; CASTIEL, 2020). An important aspect of these narratives is whether they defend freedom of expression while pursuing the common good and the ethics of responsibility. A qualitative study in Paraguay analyzed how news about the pandemic dominated the media. Fake news and misinterpretations have generated popular reactions such as compulsive shopping, xenophobia, risky health practices and ignoring the concept of experts to create the news (MORENO-FLEITAS, 2020).

3.3 News verification methods and initiatives

One of the most common reactions that the proliferation of fake news has had, in the post-truth context, has been the emergence of initiatives and methodologies to verify the veracity of information. A study by Vizoso García and Vázquez Herrero (2019) reviewed 19 international projects in Spanish to verify

data and analyze published content. They have been more frequent in South America.

Most of these projects are journalistic in nature, although there are several of civic and independent origins. Some of the main journalistic fact checklists are the International Fact-Checking Network and Duke Reporter's Lab. Latinoamérica (RODRÍGUEZ PÉREZ, 2020). Among the most common verification strategies, text is the preferred medium, although some innovative methods have been found to verify the accuracy of different types of content (VIZOSO GARCÍA; VÁZQUEZ HERRERO, 2019).

One of the innovations is X-Coherence, which reviews and combines heterogeneous sources of information that document real-world events in images (FERREIRA *et al.*, 2019). A national text analysis initiative is Chequea Bolivia, which emerged in that country as a result of the 2019 elections (OJEDA COPA; PEREDO RODRÍGUEZ 2020).

Another project that uses textual analysis is Verificado18, created in 2018 as a result of the general elections in Mexico to identify false statements by politicians and confirm the authenticity of content. Although it has educational potential, more efforts are needed to achieve transparency (NOAIN SÁNCHEZ, 2019). Most of these initiatives were created between 2014 and 2016 (VIZOSO GARCÍA; VÁZQUEZ HERRERO, 2019).

3.4 Theoretical analysis and its relationship with education

In addition to the specific actions to scrutinize news or information circulating on the networks, it is important to recognize approaches that theoretically address this phenomenon and its implications for individuals and human groups. Some publications in this review make interesting analyses. An essay by Loureiro and Gonçalves (2021) addresses the production and consumption of false news through a critique of the cultural industry.

Those authors claim that the public is addicted to the uninterrupted transmission of audiovisual messages and that, in this way, the market logic invades private life and institutionalizes the production of a false existence and cultivates a semi-formation. They also update the concept of formation (*bildung*) in schools of education to promote an understanding of the logic of the addictive production machine that reduces people's capacity for criticism and self-criticism (LOUREIRO; GONÇALVES, 2021).

In another document, Orellana (2020) reflects on the false news and the purposes of higher education. He argues that such news is not new in society, but that the transition from late modernity to the current digital age has increased its impact due to the current degree of development of social networks, low educational levels, and the extension of guarantees for freedom of expression. Likewise, Orellana indicates how the university, as a factory of truths, should aim to enrich understanding.

With regard to teacher education in social sciences, particularly education for citizenship, Triviño Cabrera and Chaves Guerrero (2020) analyze postmodernity as a meta-history and its repercussions on education for global citizenship, with new concepts like post-truth. These authors argue that there must be a rapprochement between modernity and postmodernity.

In this approach, citizenship education must assume that being critical is not just giving an opinion, but also being aware that what one thinks is conditioned to a person's context. It is a pluralist methodology that favors the debate between our own reasons and those of others, in order to form a skeptical citizenship that critically questions themselves about the world in which they live and arrive at rational arguments that seek knowledge. The result will be a practical dimension of world contemplation, social and citizen commitment to change an unfair and discriminatory world (TRIVIÑO CABRERA; CHAVES GUERRERO, 2020).

3.5 Studies on the factors, perception, and credibility of fake news

Some of the selected publications examine how false news affects people, especially college students. A study by Muriel-Torrado and Pereira (2020) correlates the concepts of fake news and misinformation with Fogg's model of behavior (convergence of three factors: motivation, ability, and signal). These authors claim that false information can be used to manipulate those individuals who are likely to believe in a particular issue, do not know how to verify the information, or suffer from information fatigue.

In another study carried out in Brazil, through interviews, Saramaguian blindness was explored (an intrinsic world that the eyes cannot see) and how a simple touch on a screen can give credibility to false scientific news. There is a growing gap between fact and fiction, creating parallel social realities. Education, family income, and persuasive speech are fundamental to the credibility of false news (GOMES *et al.*, 2020)

As expected, several studies focused on journalism and communication students. A qualitative investigation in Spain examined the behavior and opinion of journalism students and other disciplines when faced with false news. Most students have been deceived at least once. However, they claim to maintain a high level of alertness. Another useful finding in education showed that some disciplines are more invaded than others by false news (MENDIGUREN *et al.*, 2020).

Another study consisted of a survey of habits among communication students from Brazil, Spain, and Portugal. Social networks and digital forms of news dissemination were the predominant use. In addition, students have the ability to detect false news and its origin. However, not all the content is read, only the titles or headings (CATALINA-GARCÍA *et al.*, 2019). The latter would open the door to developing educational strategies that promote in-depth reading and writing less extensive material to attract headline readers.

3.6 Approaches to misinformation in higher education

This section includes the training aspects related to misinformation and false news found in the revised publications. In a work by Pangrazio (2018), the need to add **critical digital literacies** to educational goals is raised. In some cases, educational tools such as manuals with conceptual frameworks and classes for educators and students in disciplines such as journalism were created to navigate the problems with false news (IRETON; POSETTI, 2018). Curriculum guidelines have also been developed to guide debates in journalism education on issues such as trans-disciplinarity, use of technology, and humanistic

empowerment. Likewise, it promotes the participation of various sectors in the debate on the democratic crisis (AMARAL FILHO, 2019).

Competency-based training has been a common pedagogical trend in Latin America in recent decades. It was found in this review. David and Martínez-Riera (2020) draw attention to the importance of developing political competence in nursing programs. In the field of information and documentation, López Borrull *et al.* (2018) reflect on the implementation of initiatives and projects through libraries, in addition to areas such as education and communication. They urge you to review pedagogical practices, the participation of different sectors and disciplines, and the strengthening of digital and media skills.

Jiménez i Hernando (2020), in his master's thesis on teacher education, proposes using the news outlets as a generator of historical skills. This involves using sources to promote critical analysis among students. In another master's thesis, Dominguez (2018) in Brazil proposes teaching history in the present. It is based on the fact that memory disputes disseminated on the internet, with the spread of historical forgeries, create an environment of attacks on historical knowledge.

Another aspect is the **formation in values or humanism**, as suggested by Amaral Filho (2019). Triviño Cabrera and Chaves Guerrero (2020), in an essay on teacher education, argue that developing empathic skills is an adequate strategy. They state that perhaps the time has come for citizens to begin to see themselves as "alterity," that is, to put themselves in the other's shoes, not as a mere good intention to approach the other and tolerate him.

Finally, and returning to the importance of libraries emphasized by López Borrull *et al.* (2018), Martínez-Cardama and Algora-Cancho (2019) applied a survey to 75 university libraries in Spain about their role in combating misinformation. Their findings bring to light information literacy activities and the use of online tools. Likewise, collaboration between libraries and professors, emphasis on verification and tracking of learning, ability to discern between misleading metrics, and recognition of predatory publications stand out.

4. Discussion

Based on a conceptual analysis of misinformation and the dissemination of false news and the identification of publications that address the topic in higher or higher education, this study sought to answer the question: How is post-truth studied and transformed into learning experiences? And false news in Ibero-American higher education? To answer this question, the SciELO and La Referencia databases were searched to carry out an exploratory and scoping analysis of the literature on higher education in the region.

The findings show how today's students move naturally in tech media and tend to distinguish real news from fake news; however, they consume vast amounts of information that they do not analyze critically. Different experiences propose the development of critical media and digital skills, as well as political and historical skills; a humanistic formation of values; a collaboration between university libraries and professors; and transdisciplinary work.

This part of the discussion seeks to make a germinal conceptual contribution to what would be a pedagogy that transforms the challenge of post-truth and misinformation into an opportunity to develop meaningful learning. It

seeks, in addition to verifying information, building learning and recognizing different notions of truth through work in the classroom.

It is argued that, in the first place, education should seek to develop critical thinking habits in students by consulting and evaluating different sources of information from reliable and verified sources that represent multiple perspectives, so that they can make informed and reasoned decisions. Second, taking as a reference notions of democratic education (GABRIEL, 2017; GARMAN, 2007; KOONCE, 2014), emphasizing openness to listen, deliberate, understand and respect different points of view among students is proposed.

This means, as stated by Triviño Cabrera and Chaves Guerrero (2020), that they can see themselves as “otherness.” This includes creating spaces to learn, reflect, and put these values into practice. In this context, both intellectual habits and ethical training and democratic values are essential.

The next section identifies, first, the need to change traditional teaching strategies to generate learning with intellectual and social meaning, beyond simple memorization and repetition of content. Second, it analyzes how the use of democratic education principles can contribute to the search and construction of truth. Finally, the challenges of the post-truth world and the six pedagogical elements proposed to address it are synthesized: habits of critical thinking, democratic dialogue, intellectual skepticism, research skills, use of reliable sources of information, and analysis from multiple perspectives.

4.1 Beyond ephemeral memorization and uncritical acceptance of content

For decades, authors and pedagogical currents have advocated teaching that goes beyond memorization, repetition of pre-established contents, and disconnection from the real world (CARLSON, 2017; DUFFY, 2017; SVETLIK, 2007). They are based on the greater understanding we have of how humans learn, and that knowledge is not an accumulation of meaningless or one-way content.

Changes in pedagogical models are also due to the growth and diversification of knowledge fields, many of which are available online. It is difficult to control and verify the authenticity of all information, especially those circulating on social networks. Such multiplication and availability of content make lectures or traditional teaching and many learning assessment methods limited or obsolete (MCMURTRIE, 2019).

Therefore, an education that allows students to develop critical thinking habits and application of what they have learned, develop skills, qualities and skills to learn throughout life, analyze different issues from multiple perspectives, and work in teams and individually is necessary (WORLD BANK, 2003).

Two important questions arise in this context: How can a person know if the content or information is true or valid? Who has the authority to decide whether content is true and should be included in the academic repertoire? To some extent, greater value has been attributed to the knowledge generated by research, due to its systematic and rigorous nature, and because the contents derived from it have passed through filters such as arbitration by expert peers.

However, hard and applied science approaches and methods tend to prevail over disciplines with other traditions and developments, such as the social sciences. This generates epistemological, ontological, axiological, and methodological clashes

(AGUIRRE; JARAMILLO, 2010; AGUADO LÓPEZ *et al.*, 2008; DELGADO, 2011; VESSURI, 2003).

In many cases, questions about **how** have replaced questions about **what** and **why**. Another issue that generates controversy is the commodification of knowledge by means of dissemination of corporate knowledge (DE WIT *et al.*, 2005; DELGADO, 2011; MARTÍNEZ HERNÁNDEZ *et al.*, 2014; POWELL *et al.*, 2017; SAFORCADA *et al.*, 2019; TORRES; SCHUGURENSKY, 2002).

As a reaction to this dominance, movements such as **indigenous education** (HAMEL, 2020; MUÑOZ, 2008) and the **democratization of knowledge**, such as open access (DELGADO, 2011; MOLLIS, 2006) emerged. These trends opened doors for other actors and forms of representation to have a voice and to be visible. As a result, students have more access to content of various types (ALPERÍN *et al.*, 2014; MARTÍNEZ HERNÁNDEZ *et al.*, 2004; ROARMAP, 2020).

4.2 Democratic education for the search and construction of truth

Until now, arguments and strategies have been discussed to promote intellectual habits in the search for truth and to overcome misinformation and fake news. Likewise, some dominant trends and reactions on access to and production of knowledge that require a review of teaching strategies were presented. Quoting Hannah Arendt and her book "The Origins of Totalitarianism" (1998, originally 1951), Claudio Vargas (2019) emphasizes how the post-factual world presents the risk of opening the door to authoritarianism, especially for those who do not distinguish between reality and fiction, and distinction between what is true and what is false is becoming blurred.

As mentioned above, truth is difficult to establish because it is determined by life experiences, contexts, social affiliations, thought silos, and the type of information people have access to. Teaching in this sense can contribute to generating awareness about the limitations of our own thinking and access to the truth. Therefore, generating attitudes and intellectual actions in search of the truth or different ways of seeing life's events is an imperative in higher education.

The classroom is a unique meeting space to provide spaces for deliberation in order to recognize different points of life, general and individual narratives, and life experiences. It is particularly important to give a voice to people and experiences that have been marginalized in a society. Thus, the pedagogies of democratic culture, or democratic education, focus mainly on the pursuit of social justice (GABRIEL, 2017; GARMAN, 2007; GOSWAMI, 2017).

In the training of teachers in the area of social foundations of education, which has the potential to be extended to other disciplines and transdisciplinary spaces, Noreen B. Garman (2007) proposed the use of dialogue to promote social justice and a democratic culture. The classroom is a space for response, deliberation, and questioning in which students can explore and recognize the reasons and origins of their ways of thinking and their prejudices through deliberation with their peers.

In the search for truth and knowledge generation through dialogue, students commit to considering social justice issues, valuing multiple perspectives, sharing learnings with their peers, risking challenge others and being challenged, presenting solid points of view, seeking participation balance of all students in class, and

become active members of a society. Strategies like this favor intellectual openness and critical thinking, while allowing students to create values and attitudes towards their participation in society.

4.3 Problems of post-truth and pedagogical elements proposed

In addition to the development of critical thinking and democratic dialogue, the pedagogical proposal at the core of this work includes an attitude of intellectual skepticism, a solid knowledge of valid research methods, the use and evaluation of reliable sources, and multiple perspectives to reach understanding and reach to group agreements.

Intellectual skepticism is proposed here as an attitude to seek out the reasons or motivations underlying an argument and assess the evidence or validity of the statements that are used to support that argument. It is about rejecting any information that does not have solid support in its sources and justifications. Intellectual skepticism seeks justice and truth. Not to be confused with cynical attitudes or anti-intellectual skepticism that are used to spread fake or distorted narratives and speeches.

Thus, in order to identify and analyze the veracity and reasonableness of an argument, students must build solid knowledge about methods, strategies, and resources to answer knowledge questions, that is, research. Ideally, this practical knowledge encompasses different scientific and disciplinary traditions. This knowledge will help them understand and evaluate information presented to them as true knowledge.

The challenges that arise when trying to scrutinize all the information that comes in include the amount of time it takes, and the magnitude of the material scrutinized. Therefore, it is the task of educators and students, with the help of documentation centers, libraries, and information and news verification initiatives, to identify sources or services that offer reliable information and present problems from multiple perspectives.

An example of such a service is the "Media Bias Chart® 5.1" developed in the United States by Vanessa Otero (2020) using an analysis methodology developed to contribute to a healthy democracy. Another example is the ProCon.org page, which promotes critical thinking, education, and informed citizenship, presenting controversial issues in a direct and non-partisan way through pros and cons. This service analyzes topics in health, education, politics, science and technology, elections and presidents, international issues, international relations, sex and gender, entertainment and sports, and economics (PROCON.ORG, 2020).

5. Conclusions

An exploratory and scoping literature review was carried out on the approaches given to issues of post-truth and fake news in Ibero-American higher education. Six thematic categories were identified that included main concepts; realms of fake news; news verification initiatives and methods; theoretical analysis and its relationship with education; studies on the factors, perception and credibility of false news; and address misinformation in higher education.

The post-factual or post-truth world is characterized by the spread of rumors, fake news and information through social media and the general media. Often, this information seeks to confuse and generate emotional rather than rational reactions. This phenomenon poses challenges to higher education in Ibero-America in terms of teaching and learning. The germ of a pedagogy aimed at the development of intellectual habits and democratic attitudes in students for the search and construction of the truth and of a fairer society is presented here.

Higher education, to remain relevant, must promote meaningful learning that results from accessing multiple sources of information and contrasting different perspectives on the same subject. Likewise, students need to learn to discern between true and false, or at least maintain a modicum of skepticism to assess what is plausible and supported by systematic, reasonable, and somewhat solid evidence. For this, they must develop a critical attitude towards the information they receive and maintain a spirit of learning and search for the truth throughout their lives.

References

AGUIRRE, Juan Carlos; JARAMILLO, Luis Guillermo. La ciencia entre el objetivismo y el construccionismo. **Cinta Moebio**, v. 38, 2010, 72-90.

AGUADO LÓPEZ, Eduardo; ROGEL SALAZAR, Rosario; GARDUÑO OROPEZA, Gustavo; *et.al.* Redalyc: una alternativa a las asimetrías en la distribución del conocimiento científico. **Ciencia, Docencia y Tecnología**, v. XIX n. 37, 2008, p. 11-30.

ALPERÍN, Juan Pablo; BABINI, Dominique; FISCHMAN, Gustavo (editores). **Open access indicators and scholarly communications in Latin America**. Buenos Aires: CLACSO, UNESCO, FLACSO Brasil, PKP, SciELO, RedALyC, 2014. Disponível em: <http://microblogging.infodocs.eu/wp-content/uploads/2015/08/alperin2014.pdf>. Acesso em: 4 de outubro de 2020.

ALTBACH, Philip G.; DE WIT, Hans. Nacionalismo: ¿El fin de la internacionalización de la educación? **Nexos**. 8 mar 2017. Disponível em: <https://educacion.nexos.com.mx/?p=480>. Acesso em: 6 de outubro de 2020.

ÁLVAREZ RUFES, Manuel. **Estado del arte: Posverdad y fakenews** (tesis de maestría). Madrid: Universidad Nacional de Educación a Distancia (UNED), 2018. Disponível em: http://e-spacio.uned.es/fez/view/bibliuned:masterComEdred-Malvarez_. Acesso em: 30 de setembro de 2020.

AMARAL FILHO, Nemézio. Tecnologias e a crise da democracia: desafios à prática e ao ensino do Jornalismo no Brasil. **Correspondencias & Análisis**. n. 10, 2019. Disponível em: <https://doi.org/10.24265/cian.2019.n10.02>. Acesso em: 28 de setembro de 2020.

ARENDT, Hannah. **Los orígenes del totalitarismo**. Madrid: Santillana, 1998.

BACON, Chris C. Appropriated literacies: the paradox of critical literacies, policies, and methodologies in a post-truth era. **Education Policy Analysis Archives**, v. 26, n. 147, 18 nov. 2018. Disponível em: <http://dx.doi.org/10.14507/epaa.26.3377>. Acesso em: 10 de outubro de 2020.

CARLSON, Scott. How real-world learning could help people compete with machines. **The Chronicle of Higher Education**, 20 nov. 2017. Disponível em: <https://www-chronicle-com.pitt.idm.oclc.org/article/How-Real-World-Learning-Could/241811>. Acesso em: 2 de outubro de 2020.

CATALINA-GARCÍA, Beatriz; SOUSA, Jorge Pedro; SOUSA, Li-Chang Shuen Cristina Silva. Consumo de notícias y percepción de fake news entre estudantes de Comunicação de Brasil, Espanha y Portugal. **Revista de Comunicación**, v. 18, n. 2, 2019, p. 93-115. Disponível em: <https://dx.doi.org/10.26441/rc18.2-2019-a5>. Acesso em: 8 de outubro de 2020.

DAVID, Helena Maria Scherlowski Leal; MARTÍNEZ-RIERA, José Ramón. Fake news and small truths: a reflection on the political competence of nurses. **Texto & Contexto - Enfermagem**, v. 29, 2020, e20190224. Disponível em: <https://dx.doi.org/10.1590/1980-265x-tce-2019-0224>. Acesso em: 2 de outubro de 2020.

DE WIT, Hans; JARAMILLO, Isabel Christina; GACEL-ÁVILA, Jocelyne; KNIGHT, Jane. **Higher education in Latin America. The international dimension**. Washington, DC: The World Bank, 2005.

DELGADO, Jorge Enrique. **Journal publication in Chile, Colombia, and Venezuela: University responses to global, regional, and national pressures and tensions** (doctoral dissertation). Pittsburgh, PA: University of Pittsburgh, School of Education, Department of Administrative and Policy Studies, 2011. Disponível em: <http://d-scholarship.pitt.edu/9049/>. Acesso em: 4 de outubro de 2020.

DELMAZO, Caroline; VALENTE, Jonas C. L. Fake news nas redes sociais online: propagação e reações à desinformação em busca de cliques. **Media & Jornalismo**, v. 18, n. 32, 2018, p. 155-169. Disponível em: http://www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S2183-54622018000100012&lng=pt&tlng=pt. Acesso em: 26 de setembro de 2020.

DOMINGUES, Vanessa dos Reis. **Ensino da história do tempo presente na era das redes sociais** (tesis de maestria). Porto Alegre: Universidade Federal do Rio Grande do Sul, 2018. Disponível em: <http://hdl.handle.net/10183/197053>. Acesso em: 20 de setembro de 2020 .

DUFFY, Eric. Does college prepare students for the real world? **Quora**, 9 sep. 2017. Disponível em: <https://www.forbes.com/sites/quora/2017/09/09/does-college-prepare-students-for-the-real-world/#7d1c40fb42df>. Acesso em: 2 de outubro de 2020

EDMANS, Alex. What to trust in a post-truth world (video). **TEDxLondonBusinessSchool**, may 2017. Disponível em: <https://www.ted.com/talks/>. Acesso em: 4 de outubro de 2020.

FERNÁNDEZ-SÁNCHEZ, H.; KING, K.; ENRÍQUEZ-HERNÁNDEZ, C. B. Revisões sistemáticas exploratórias como metodologia para a síntese do conhecimento científico. **Enfermería Universitaria**, v. 17, n. 1, 2020, p. 88-94. Disponível em: <https://doi.org/10.22201/eneo.23958421e.2020.1.697>. Acesso em: 4 de outubro de 2020.

FERREIRA, Alexandre; CARVALHO, Tiago; ANDALÓ, Fernanda; ROCHA, Anderson. Counteracting the contemporaneous proliferation of digital forgeries and fake news.

Anais de Academia Brasileira de Ciências, v. 91, suppl. 1, 2019, e20180149. Disponível em: <https://doi.org/10.1590/0001-3765201820180149>. Acesso em: 10 de outubro de 2020.

GABRIEL, Deborah. Pedagogies of social justice and cultural democracy in media higher education. **Media Education Research Journal**, v. 8, n. 1, 2017, p. 35-48.

GARMAN, Noreen B. **Challenge in education and society coursework: walking the path of social justice and democracy through dialogue. A pedagogical trope**. Pittsburgh, PA: University of Pittsburgh, jan 2007.

GOMES, Sheila Freitas; PENNA, Juliana Coelho Braga de Oliveira. ARROIO, Agnaldo. Fake news científicas: percepção, persuasão e letramento. **Ciência & Educação (Bauru)**, v. 26, e20018, 2020. Disponível em: <https://doi.org/10.1590/1516-731320200018>. Acesso em: 12 de outubro de 2020.

GOSWAMI, Ranjit. The role of universities in the post-truth era. **The Chronicle of Higher Education**, 31 mar. 2017. Disponível em: <https://www.universityworldnews.com/post.php?story=20170327230152935>. Acesso em: 28 de setembro de 2020.

GUIRAO GORIS, Silamani J. Adolf. Utilidad y tipos de revisión de literatura. **Ene Revista de Enfermería**, v. 9, n. 2, 2015. Disponível em: <https://dx.doi.org/10.4321/S1988-348X2015000200002>. Acesso em: 2 de outubro de 2020.

HAMEL, Rainer Enrique. La riqueza y la validez de las lenguas indígenas en el siglo XXI. En: CLACSO (editor). **Celebrando las lenguas originarias de América**. Buenos Aires: CLACSO, 2020. Disponível em: http://lenguasindigenas.clacso.org/Lenguas_Indigenas_PDF.pdf. Acesso em: 20 de outubro de 2020.

HAN, Jialing; DELGADO, Jorge Enrique; XIANG, Xin; *et.al.* Education of migrant children: a portrait of seven countries with comparative analysis. In: HAN, Jialing (editor). **A multi-country study on the education of migrant children**. Beijing, China: 21st Century Education Research Institute, Qatar Foundation, nov. 2017, p. 1-5.

Iniciativa de las Naciones Unidas para el Aprendizaje sobre el Cambio Climático (UN CC:LEARN). **¿Cómo las universidades pueden tomar en cuenta el cambio climático?** Ginebra, Suiza: Instituto de las Naciones Unidas para Formación Profesional e Investigaciones (UNITAR), 14 sep. 2018. Disponível em: <https://www.uncclearn.org/es/noticias/como-las-universidades-pueden-tomar-en-cuenta-el-cambio-climatico>. Acesso em: 4 de outubro de 2020.

IRETON, Cherilyn; POSETTI, Julie. **Journalism, fake news & disinformation: handbook for journalism education and training**. Paris: UNESCO, 2018.

JIMÉNEZ I HERNANDO, Albert. **La prensa como generador de pensamiento crítico** (tesis de maestría). Pamplona: Universidad Pública de Navarra, 2020.

KOONCE, Glenn L. Are truly democratic classrooms possible? In: Glenn L. Koonce, **Taking sides. Clashing vies on educational issues**, 8th edition. McGraw-Hill: 2014, p. 79-91.

LÓPEZ BORRULL, Alexandre; VIVES GRÀCIA, Josep; BADELL GUIJARRO, Joan Isidre. Fake news, ¿Amenaza u oportunidad para los profesionales de la información y la documentación? **El Profesional de la Información**, v. 27, n. 6, 2018, p. 1346-1356. Disponível em: <https://doi.org/10.3145/epi.2018.nov.17>. Acesso em: 4 de outubro de 2020.

LOUREIRO, Robson; GONÇALVES, Emerson Campos. (Semi)formação no contexto das fake news e da pós-verdade na sociedade excitada - de Adorno a Türcke. **Educação em Revista**, v. 37, e225778, 2021. Disponível em: <https://doi.org/10.1590/0102-4698225778>. Acesso em: 2 de outubro de 2020.

MARTÍNEZ-CARDAMA, Sara; ALGORA-CANCHO, Laura. Lucha contra la desinformación desde las bibliotecas universitarias. *El Profesional de la Información*, v. 28, n. 4, 2019, 3280412. Disponível em: <https://doi.org/10.3145/epi.2019.jul.12>. Acesso em: 26 de setembro de 2020.

MARTÍNEZ HERNÁNDEZ, Diego; LÓPEZ, Beliji Lileth; MANCO VEGA, Alejandra; ALIAGA, Francisco M.; DELGADO, Jorge Henrique; TEJADA-GÓMEZ, María-Alejandra; ROMERO, Cristina. **Acceso, uso y publicación en revistas científicas entre los investigadores en ciencias sociales de Latinoamérica**. 2014. Disponível em: <http://dx.doi.org/10.6084/m9.figshare.1041561>. Acesso em: 20 de setembro de 2020.

MCMURTRIE, Beth. Can the lecture be saved? **The Chronicle of Higher Education**, 3 oct. 2019. Disponível em: <https://www-chronicle-com.pitt.idm.oclc.org/article/Can-the-Lecture-Be-Saved-/247268>. Acesso em: 28 de setembro de 2020.

MENDIGUREN, Terese; PÉREZ DASILVA, Jesús; MESO AYERDI, Koldobika. Actitud ante las Fake News: Estudio del caso de los estudiantes de la Universidad del País Vasco. **Revista de Comunicación**, v. 19, n. 1, 2020, p. 171-184. Disponível em: <https://dx.doi.org/10.26441/rc19.1-2020-a10>. Acesso em: 12 de outubro de 2020.

MOLLIS, Marcela. Geopolítica del saber: biografías recientes de las universidades latinoamericanas. En: VESSURI, Hebe (editora). **Universidad e investigación científica**. Buenos Aires: CLACSO, nov. 2006.

MORENO-FLEITAS, Olga Elizabeth. La divulgación de la información en la encrucijada de la crisis del COVID-19 en Paraguay. Reacciones y transmisión de datos falsos y científicos a través de las redes sociales y los medios masivos. **Revista de la Sociedad Científica del Paraguay**, v. 25, n. 1, 2020, p. 58-85. Disponível em: <https://dx.doi.org/10.32480/rscp.2020-25-1.58-85>. Acesso em: 12 de outubro de 2020.

MUÑOZ, Manuel Ramiro. Pertinencia y nuevos roles de la educación superior en la región. En: TÜNNERMANN BERNHEIM, Carlos (editor). **La educación superior en América Latina y el Caribe: diez años después de la conferencia mundial de 1998**. Cali, Colombia: IESALC-UNESCO, Pontificia Universidad Javeriana, 2008, p. 166-198.

MURIEL-TORRADO, Enrique; PEREIRA, Danielle Borges. Correlations between the concepts of disinformation and Fogg's Behavior Model. **Transinformação**, v. 32, 2020, e200026. Disponível em: <https://doi.org/10.1590/2318-0889202032e200026>. Acesso em: 14 de outubro de 2020.

NOAIN SÁNCHEZ, A. Periodismo de confirmación vs. desinformación: Verificado18 y las elecciones mexicanas de 2018. **Ámbitos. Revista Internacional de**

Comunicación. V. 43, n. 1, 2019, p. 95-114. Disponível em: <https://dx.doi.org/10.12795/Ambitos.2019.i43.05>. Acesso em: 2 de outubro de 2020.

OJEDA COPA, Alex; PEREDO RODRÍGUEZ, Valeria. Convergencia entre desinformación política y social en el conflicto electoral de 2019 en Bolivia. **Temas Sociales**. N. 46, 2020, p. 98-126. Disponível em: http://www.scielo.org.bo/scielo.php?script=sci_arttext&pid=S0040-29152020000100005&lng=es&tlng=es. Acesso em: 3 de dezembro de 2020.

ORELLANA BENADO, M. E. Fabricando "verdades", ocultando la historia y "haciendo" universidad. **Atenea (Concepción)**, n. 522, 2020. p. 307-314. Disponível em: <https://dx.doi.org/10.29393/at522-110fvm010110>. Acesso em: 3 de dezembro de 2020.

OTERO, Vanessa. **Media Bias Chart @ 5.1**. Lafayette, CO: Ad Fontes Media, 2020. Disponível em: <https://www.adfontesmedia.com/?v=402f03a963ba>. Acesso em: 3 de dezembro de 2020.

PANGRAZIO, Luci. What's new about 'fake news'? Critical digital literacies in an era of fake news, post-truth and clickbait. **Páginas de Educación**, v. 11, n. 1, 2018, p. 6-22. Disponível em: <https://dx.doi.org/10.22235/pe.v11i1.1551>. Acesso em: 28 de setembro de 2020.

POWELL, Justin J. W.; FERNANDEZ, Frank; CRIST, John T.; *et al.* Introduction: the worldwide triumph of the research university and globalizing science. En: POWELL, Justin J. W.; FERNANDEZ, Frank; BAKER, David P. (editors). **The century of science: the global triumph of the research university**. Bingley, UK: Emerald, 2017, p. 1-36.

PROCON.ORG. **Home** (website). Santa Mónica, CA: ProCon.org, 2020. Disponível em: <https://www.procon.org/>. Acesso em: 3 de dezembro de 2020.

Registry of Open Access Repository Mandates and Policies (ROARMAP). **Home** (internet). Southampton: University of Southampton, School of Electronics and Computer Science, 2020. Disponível em: <http://roarmap.eprints.org/>. Acesso em: 3 de dezembro de 2020.

RIPOLL, Leonardo; CANTO, Fábio Lorensi do. Fake news going viral: legal responsibility on the dissemination of misinformation. **Revista Brasileira de Biblioteconomia e Documentação**, v. 15, 2019. Disponível em: <https://rbbd.febab.org.br/rbbd/article/view/1364>. Acesso em: 2 de outubro de 2020.

RODRIGUES, Theófilo; FERREIRA, Daniel. Estratégias digitais dos populismos de esquerda e de direita: Brasil e Espanha em perspectiva comparada. **Trabalhos em Linguística Aplicada**, v. 59, n. 2, 2020, p. 1070-1086. Disponível em: <https://dx.doi.org/10.1590/01031813715921620200520>. Acesso em: 3 de dezembro de 2020.

RODRÍGUEZ PÉREZ, Carlos. Una reflexión sobre la epistemología del fact-checking journalism: retos y dilemas. **Revista de Comunicación**, v. 19, n. 1, 2020, p. 243-258. Disponível em: <https://dx.doi.org/10.26441/rc19.1-2020-a14>. Acesso em: 3 de dezembro de 2020.

SAFORCADA, Fernanda; ATAÍRO, Daniela; TROTTA, Lucía; *et al.* **Tendencias de privatización y mercantilización de la universidad en América Latina. Los casos**

de Argentina, Chile, Perú y República Dominicana. Buenos Aires: Instituto de Estudios y Capacitación - CONADU, 2019.

SANTOS, Gustavo Ferreira. Social media, disinformation, and regulation of the electoral process: a study based on 2018 Brazilian election experience. **Revista de Investigações Constitucionais**, v. 7, n. 2, 2020, p. 429-449. Disponível em: <https://doi.org/10.5380/rinc.v7i2.71057>. Acesso em: 5 de dezembro de 2020.

SEKULLICH, Daniel. Science struggling against fake news and fact deniers. **University World News**, 19 jun. 2019. Disponível em: <https://www.universityworldnews.com/post.php?story=20190619112503915>. Acesso em: 28 de setembro de 2020.

STEPHENSON, Grace Karram. Finding new paths to discover and tell the truth. **University World News**, 22 jun. 2019. Disponível em: <https://www.universityworldnews.com/post.php?story=20190621075859877>. Acesso em: 28 de setembro de 2020.

SVETLIK, David. When the academic world and the real world meet. *Thought & Action (NEA)*, n. Fall, 2007, p. 47-55. Disponível em: http://www.nea.org/assets/img/PubThoughtAndAction/TAA_07_06.pdf. Acesso em: 26 de setembro de 2020.

TORRES, Carlos Alberto; SCHUGURENSKY, Daniel. The political economy of Higher Education in the era of neoliberal globalization: Latin America in comparative perspective. **Higher Education**, v. 43, jun. 2002, p. 429-455. Disponível em: <https://doi.org/10.1023/A:1015292413037>. Acesso em: 26 de setembro de 2020.

TRIVIÑO CABRERA, Laura; CHAVES GUERRERO, Elisa Isabel. Cuando la Postmodernidad es un metarrelato más, ¿en qué educación ciudadana formar al profesorado? **REIDICS Revista de Investigación en Didáctica de las Ciencias Sociales**, n. 7, 2020. Disponível em: <https://doi.org/10.17398/2531-0968.07.82>. Acesso em: 4 de dezembro de 2020.

VARGAS, Claudio H. La jornada Aguascalientes: Los años por venir/extravíos. **La Jornada Aguascalientes**, 30 sep. 2019. Disponível em: <https://www.lja.mx/2019/09/la-jornada-aguascalientes-los-anos-por-venir-extravios/>. Acesso em: 2 de outubro de 2020.

VASCONCELLOS-SILVA, Paulo R., CASTIEL, Luis David. COVID-19, as fake news e o sono da razão comunicativa gerando monstros: a narrativa dos riscos e os riscos das narrativas. **Cadernos de Saúde Pública**, v. 36, n. 7, 2020. Disponível em: <https://doi.org/10.1590/0102-311x00101920>. Acesso em: 2 de dezembro de 2020.

VESSURI, Hebe. La ciencia y la educación superior en el proceso de internacionalización. Elementos de un marco conceptual para América Latina. **UNESCO Forum Occasional Paper Series**, n. 13/S, 2003.

VIZOSO GARCÍA, Ángel Antonio; VÁZQUEZ HERRERO, Jorge. Plataformas de fact-checking en español. Características, organización y método. **Communication & Society**, v. 32v, n. 1, 2019, p. 127-144. Disponível em: <https://doi.org/10.15581/003.32.1.127-144>. Acesso em: 14 de outubro de 2020.

DELGADO, J. E. *Emerging Contexts and Teaching in Ibero-American Higher Education: Challenges of the Post-Truth World*. Dossier Emerging Educational Practices: contemporary challenges

WHITTEMORE, Robin; CHAO, Ariana; JANG, Myoungock; *et al.* Methods for knowledge synthesis. **Heart & Lung**, v. 43, 2014, p. 453-461. Disponível em: <http://dx.doi.org/10.1016/j.hrtlng.2014.05.014>. Acesso em: 3 de dezembro de 2020.

WORLD BANK. **Lifelong learning in the global knowledge economy: Challenges for developing countries**. Washington, DC: The International Bank for Reconstruction and Development, 2003. Disponível em: http://siteresources.worldbank.org/INTLL/Resources/Lifelong-Learning-in-the-Global-Knowledge-Economy/lifelonglearning_GKE.pdf. Acesso em: 2 de outubro de 2020.

Enviado em: 17/October/2020 | Aprovado em: 27/March/2021

English translation of the original in Portuguese DELGADO, J. E. Contextos emergentes e instrução no ensino superior ibero-americano: desafios do mundo pós-factual by Jorge Enrique Delgado, e-mail: jed41@pitt.edu