ABSTRACT
The discipline Structural Considerations of Information explores the interests underlying communicational dynamics and information strategies, as well as the ways in which they correlate with messages. Considering this knowledge to be key in Communication Education, and having confirmed its close relationship with the dimensions of media competence, its presence is analyzed in the Media and Information Literacy (MIL) curriculum for teachers, whose training is crucial for the success of the process, developed by UNESCO, an organization that is a global referent in the field. A semantic content analysis reveals, from a quantitative perspective, a strong presence of thematic areas covered by the Structural Considerations of Information subject within the competencies and contents of the curriculum. However, at a qualitative level, there are fundamental weaknesses in its relationship with the structural approach to information. This occurs when the critical spirit of the text declines, starting with a definition of the media as sources of reliable information. The ubiquity of disinformation, and the key role played by stakeholders’ knowledge, as well as the development of critical thinking to address it requires an update of this curriculum—the present review contributes to this development—highlighting the current necessity to address it from a structural vantage that fosters critical citizenship and a democratic process.

RESUMEN
La disciplina Estructura de la Información estudia los intereses que subyacen a la dinámica comunicacional y a las estrategias de información, y su correlación con los mensajes. Considerando clave este conocimiento para la Educación en Comunicación, y una vez confirmada su estrecha relación con las dimensiones de la competencia mediática, se analiza su presencia en el currículo de Alfabetización Mediática e Informacional (AMI) del profesorado, cuya formación es crucial para el éxito del proceso elaborado por la UNESCO, órgano de referencia mundial en el área. El análisis de contenido semántico desvela, desde un punto de vista cuantitativo, la fuerte presencia de las áreas temáticas de la Estructura de la Información en las competencias y contenidos del currículo. No obstante, aplicado cualitativamente, se detectan debilidades de fondo en la relación con el enfoque estructural de la información. Ocurre cuando decae el declarado espíritu crítico del texto, empezando por definir a los medios como fuentes de información fiable. La ubicuidad de la desinformación y el papel crucial del conocimiento de los agentes envueltos en la misma y del desarrollo del pensamiento crítico para afrontarla, obliga a la actualización de este currículo—sobre todo con esta revisión—, haciendo, además, más necesario que nunca el afrontarla desde un enfoque estructural que favorezca una ciudadanía crítica y el proceso democrático.

KEYWORDS | PALABRAS CLAVE
Media literacy, critical thinking, structural considerations of information, media competence, teacher training, media systems, media production, disinformation.

Alfabetización mediática, pensamiento crítico, estructura de la información, competencia mediática, formación del profesorado, sistema de medios, producción mediática, desinformación.
1. Introduction and state of the art

The present study arises from the consideration of the key role that the knowledge of Structural Considerations of Information, that is, the “web of interests of all kinds that lie beneath journalism [...] and the correlation with its messages” (Reig, 2017: 25), has for Education in Communication. A network that Masterman (1993) qualifies as determining factors of media documents, among which are ownership and control of the media, media institutions, the state and the law, economic determinants, advertisers and audiences. Buckingham (2005) points to production, language, representation and audience as key concepts in media literacy, the same as those adopted by UNESCO (Frau-Meigs, 2006). Production implies recognizing the economic interests at stake, profit-making processes, the globalization of media industries and the balance between global and local media (Buckingham, 2005) and, rather than grasping the details of ownership, understanding “global models of media ownership and control while recognizing other important sources of power and influence” (Masterman, 1993: 87).

The purpose of this approach is to find out the importance of learning the Structural Considerations of Information (from here referred to as SI) within UNESCO’s Media and Information Literacy (MIL) Curriculum for teachers, as an international reference organization in the development of this curriculum and in teacher training, supporting it in “the design, implementation and evaluation of Media and Information Literacy programs for secondary school students” (Wilson, 2012: 17). Teacher training has been addressed through the analysis of university curricula (Masanet & Ferrés, 2013; Ferrés & Masanet, 2015; López & Aguaded, 2015) and the media skills of non-university teachers (González-Fernández, Gozálvez-Pérez, & Ramírez-García, 2015; Tiede, Grafe, & Hobbs, 2015) as well as those of university professors (Pérez-Escoda, García-Ruiz, & Aguaded, 2018), and in many of these cases the development of assessment tools and the proposal of specific actions. It has received extensive attention grounded in the crucial role that teacher training plays in the media literacy process (Ostoa-Acedo, Frau-Meigs, & Marta-Lazo, 2018).

This document, which arrived shortly after the European Parliament’s proposal (12/2008) for the creation of the course “Media Education,” is conceived as a flexible curriculum and, since its publication, many countries have developed their own adaptations (Pérez-Tornero & Tayie, 2012) coexisting with a multiple and diverse environment of media literacy policies, supporting models and effective situations (Pérez-Tornero, Paredes, Benitez, Giraldo, Tejeda, & Fernández, 2010; Telodriessi & Grafe, 2012; Frau-Meigs, Flores, & Vélez, 2014; Flores, Frau-Meigs, & Vélez, 2015; Wallis & Buckingham, 2016; De-Pablos-Pons & Ballesta-Pagán, 2018). UNESCO’s proposal contemplates its revision by educators, “in a collective process to shape and enrich the curriculum as a living document” (Wilson, Grizzle, Tuazon, Akyempong, & Cheung, 2011: 19), a task in which this study is framed, revising it in order to contribute to its development.

1.1. Definition and content scope for Structural Considerations of Information

Structure refers to the “disposition or way in which different parts of a set are related” (Real Academia Española, 2014). From this it can be deduced, firstly, that by Structure we are referring to the form that this set takes. In second place, to the relations between the parts, establishing a position for them and assigning them a function (Rangel-Contla, 1975). Finally, the existence of an aggregate of several elements; therefore, when referring to Structure we are simultaneously including the elements that comprise it and the totality. All this taking into account the existence of supra-structures, namely, structuring elements, relations, and superior sets that are above the structure itself.

In this context, Structure is paired with the term information and not with communication because information—understood as a strategy for conveying messages from ancestral-mercantile transmitters, once the receivers have been studied (Benito, 1973)—takes precedence over communication—which includes this strategy and the reaction of receivers—despite the fact that it might seem otherwise. Although nowadays receivers are simultaneously transmitters that influence and interact with the media, their participation is based on established guidelines (Mancinas-Chávez, 2016). In addition, when the digital media are independent from the major corporate groups and the commercial and financial world (Almirón & Segovia, 2012; Almirón, 2009), we cannot ignore the fact that the Web itself belongs to large corporations and
that these media have not been consolidated nor are they profitable, that is to say: they are neither totally outside the Structure, nor are they instituted as a force that substantially modifies the structural order.

On the other hand, since information is a structuring factor (Sánchez-Bravo, 1992), it acts by articulating the parts of the whole to preserve what is established, prioritizing economic benefit and the survival of the structure itself over the human right to information. In short, when we refer to SI we are referring both to the grouping of the media in structures called media groups or conglomerates, as well as to the relations that connect them to other structures and superstructures.

Behind communication messages there is a comprehensive information strategy that pursues both the logic of commercial gain and, in many cases, its influence on present and future behavior.

Macro-commercial activity may exceed its legitimate and necessary functions, in such a way that they may violate legal norms such as laws for the protection of female imagery and dignity or the right to accurate information and basic knowledge to strengthen the involvement of media education in the democratic process and social development (Pfaff-Rüdiger & Riesmeyer, 2016).

It is essential to approach information from a structural stance (Reig, Mancinas-Chávez, & Nogales-Bocío, 2017) and, as far as media education is concerned, the focus should go beyond the details of media ownership towards how this ownership affects their products. This need, now more than ever, is reaffirmed in the face of the omnipresence of disinformation, which threatens society and democracy and whose dependence on post-Internet technologies “has modified the very nature of collective interpersonal communication” (Del-Fresno-García, 2019: 2). The analysis of the originating agents of disinformation, and others involved—the one who creates the message may be different from the one who produces it and the one who distributes it (Wardle & Derakhshan, 2017)—as well as their implicit or explicit connection, is a fundamental aspect for a complete study of online disinformation (Alaphilippe, Gizikis, Hanot, & Bontcheva, 2019).

SI studies the underlying factors of communicational dynamics and those behind information strategies, leading to an inquiry into the types of institutions and people who dominate media ownership and to an analysis of the content they project. It is what Bourdieu (1997) already called invisible structure of power, which offers explicit messages (conveyed through news, series, etc.), and whose emitters are scarcely known.

The studies and lines of work of the current SI (Birkinbine, Gómez, & Wasko, 2017; Reig & Labio, 2017; García-Santamaria, 2016; Martínez-Valley & Núñez-Fernández, 2016), have focused mainly on the alliance and merger processes of corporate communication, telecommunications and technology companies, with a common purpose: developing entertainment spaces to unimaginable levels in order to enable receivers to generate their own means of information, distraction or escape through digital tools of their choice. The visualization of this whole relational dynamic between media and corporate power, as well as the messages, is a central point of the rationale behind SI, which seeks to train critical citizens.

1.2. Preliminary approach to UNESCO’s MIL curriculum for teachers

The document “Media and Information Literacy: Curriculum for teachers” (Wilson & al., 2011) includes the conceptual framework and pedagogical guidelines proposed by UNESCO for their training. It highlights the fundamental role of having a critical understanding of the communicative phenomenon,
so that citizens can exercise their fundamental freedoms and rights, thanks to MIL processes in all phases of education and life, becoming key among teachers.

The curriculum is based on three main areas concerning media: knowledge and understanding for social participation, the evaluation of texts present in the media, as well as their production and use. Many of the subjects that cover them, fundamentally the first two, have a direct relationship with media ownership, market rationale and power, which illustrates, beforehand, the presence of SI in UNESCO’s theoretical approach to MIL content and the attempt to foster a critical understanding of communication.

1.3. Structural Considerations of Information and the critical nature of Media Education

UNESCO’s active commitment to the promotion of media education dates back to the early 1960s. As early as 1969, it states that “schools must assist students in acquiring a critical attitude towards the media” (Aguaded, 2001: 122). This spirit characterizes the UNESCO-sponsored MIL international conferences. Much of the reference literature considers critical thinking as an underlying element of media literacy, both to confront it and to provoke it (Pérez-Tornero, 2000a; González-Yuste, 2000; Aguaded, 2001; Frau-Meigs, 2006), to the point that it is “a form of critical literacy” (Buckingham, 2005: 73). The MIL curriculum also pursues critical thinking, as a general framework, understood as “the ability to examine and analyze information and ideas in order to understand and evaluate their values and assumptions, rather than simply accepting proposals at their nominal value” (Wilson & al., 2011: 194).

The spread of misinformation and fake news poses a severe challenge to education systems, with the development of critical thinking and analytical skills as the keys to successful educational intervention and numerous initiatives in Europe addressing this education (McDougall, Zezulkova, Van-Driel, & Sternadel, 2018). Likewise, a response to digital competence focused on critical skills and digital citizenship is underway (Redecker, 2017), enabling the interaction with culture on the web, as well as its recreation in a critical and emancipatory way (Area, Borrás, & San-Nicolas, 2015: 31).

The main objective of critical pedagogy, which is the approach to media education, is to learn how institutions and audiences “construct meanings” (Fecé, 2000: 136). Some authors advocate against the adoption of the term because it presupposes the existence of a correct and a confused perception, although they understand that it is necessary to adopt a social theory of literacy, which “means enabling learners and teachers to learn to understand how they are shaped, and how their own responses are produced” (Buckingham, 2005: 192). Critical training begins with a model of critical school and active teaching trends, and it is also grounded in reception research (Aguaded, 1999). It enables transcending a simplistic approach that only looks at the message and leaves aside the receiver and how he/she conditions the process, since, although the text reproduces mostly the dominant ideology, it is necessary to take into account the dialectics with the public (Fecé, 2000). This is particularly the case when the user is faced with a wide range of possibilities for choosing and managing self-consumption, at least apparently, since the path leads both “towards personalization and interactivity, and towards the hegemony of a few” (Pérez-Tornero, 2000b: 27) in a concentrating and globalizing process that has never been experienced before.

From SI the focus is placed on how institutions build or can build meanings. This is the most problematic aspect given that openly approaching it raises the silence of the media and ideological critics, although the structural approach itself is situated in critical thinking, which does not necessarily have to be Marxist or left-wing and is critical not only with the market and the capitalist system but also with “classical” critical thinking itself and its socio-economic and political alternatives (Reig, 2011).

2. Material and methods

The material used as primary source and object of study was UNESCO’s MIL Curriculum for teachers (Wilson et al., 2011), which includes information providers such as libraries or archives. This required limiting the text to the media and their products. The method used was semantic field content analysis, both quantitative and qualitative. Specific free software was used, incorporating the “Keyword in context” (KWIC) technique, applying filter stop words, lemmatization, groupings and concordances. Given that the terms included are common when dealing with media, journalism or information from a variety of approaches, part of the process involved verifying whether their presence in the text was related to the
structural approach. Once each term was detected, it was analyzed within the sentence, as the first unit of context. Since the number of terms per field varies, we assessed the frequencies of occurrence and applied probability calculations to detect representativeness. A unit of external context was also used: UNESCO, as the source of the text, and its historical positioning, fundamentally the one emanating from the 1989 Paris General Conference, which closes the schism and debate that emerged in the 1970s around the “MacBride Report” and the New World Information and Communication Order (Quirós & Sierra, 2016).

The work was organized in two successive phases. During Phase 1, a preliminarily content analysis was conducted, with the aim of finding the links between SI and Media Education, to the dimensions of media competence established by Ferrés and Piscitelli (2012), promoters of “a line of research to improve media education for citizens” (Pérez-Escoda, García-Ruiz, & Aguaded, 2018: 3), and providing a methodological basis for numerous referential studies in the area. Likewise, MIL competencies specified in the curriculum were examined to identify a first relationship with SI and to delimit the units of analysis within the document. During Phase 2, it was applied to the content within the previously delimited modules and units of the curriculum.

2.1. Setting indicators for content analysis

The semantic fields were conceived considering the contents and approaches of the SI in Spanish public universities. The review of the curricula for Journalism Degree programs from all public departments of Information Sciences/Communication –where this discipline is taught under various designations– made it possible to locate the subjects and analyze their teaching guides, achieving a definition of SI as an academic subject. This implies the study of media systems, from the point of view of ownership, organization and operations (mainly the dynamics influenced by the economy, politics and technology), and the consequences of their existence, addressing the various theories underlying their study and, largely, following a critical approach and through a contextual analysis.

The examination of the descriptors for these areas and the review of texts for some fields (Gozálvez, 2013; Ferrés, Masanet, & Marta-Lazo, 2013), together with the reflection and teaching experience in SI, has led to the development of a repertoire of terms distributed in semantic fields by areas of study within SI (Figure 1), without repetition, making reasoned decisions when they could be in more than one location. The terms under “Relationship with Economics, Politics and Technology” are presented
together by specifying, in many cases, their classification into dimensions of reiteration. With “Liberal Approach”, we simplify the Economy of Communication, and with “Critical Approach”, we simplify the Political Economy of Communication.

2.2. Content analysis application to media competence indicators

The semantic content analysis for the six dimensions of media competence indicators (Ferrés & Piscitelli, 2012) confirmed the close connection between SI and Media Education (Figure 2). Except for “Languages” and “Aesthetics”, the other dimensions, as a whole, are linked to all the fields of SI areas through 29 unique terms with a joint frequency of 44, especially with those in “Consequences” (12 terms and the highest representativeness after the probability study) and “Relationship with Economics, Politics and Technology”. The closest relationship exists with the “Ideology and Values” dimension (92% of its indicators are related to the structural approach), in which references to the “Consequences” field prevail (10 terms and the highest representativeness), followed by those assigned to the “Critical Positioning” field.

2.3. Content analysis applied to MIL competencies in the curriculum and definition of units of analysis

The curriculum under study proposes seven competencies that should be acquired through training and relates them to the modules and units in which content is structured. A connection is established with SI (Figure 3) through the skills and abilities of five of its competences (except C3 and C5) and, specifically, with the field “Consequences” (19 terms). The competencies most directly related to the structural approach are present in all modules except one (M6) out of the 11 that comprise the curriculum.

3. Analysis and results

The content analysis of the MIL curriculum reveals a link with SI (Figure 4) through 62 unique terms (T), which appear 568 times (frequency, F). The majority come from the field “Consequences” (27 terms, frequency 264 and the highest representativeness) and “Relationship with Economy, Politics, and Technology”. It should be noted that the number of terms appearing and the frequencies of “Liberal Approach” and “Critical Approach” have been practically identical, although, after the study of probabilities, the former is more representative. Of all the modules (M) of content analyzed, in three of them (M4, M8 and M9) there is no single term related to the structural approach. The rest offer a non-uniform link, weaker in the case of modules M7 and M10 and stronger in the case of modules M1 and M11. The cross-reference of terms and frequencies by modules with MIL (C) competencies that they seek to develop yields C1 and C6 as fundamentally related to SI.
In order to correctly assess the link between the curriculum under study and the structural approach, it is necessary to consider its definition of the media as a source of reliable and up-to-date information, created through an editorial process guided by journalistic values, which can be attributed to a specific organization. The final glossary replaces the adjective reliable with credible.

The document lists truth, independence or accountability as key factors in journalistic practice—a window to the world. It specifies that, according to some critics—exact quotation—such freedom and independence for journalists is influenced by the financial and political motivations of both employees and media owners. And editorial independence is explained as the professional freedom of publishers to make their editorial decisions without any interference from media owners or any other actor.

It attributes an oversight function to the media with regard to the government and the power of any significant public or private entity. It considers that, although the media have great power over society and can direct and challenge it, they also reflect it, since the stories and representations they provide are what society demands and accepts. It understands that, if the state regulates the media, it interferes with the independence of journalists, and advocates for their self-determination from state or government control, as a guarantee for effective freedom of expression and the exchange of information and ideas. The effects of media consolidation are linked to pluralism, which is defined by the existence of media diversity in
relation to media ownership and support. It relates the pressure of advertising to the possible silencing of issues and the use of entertainment to attract audiences that, at the same time, are presented as active. It addresses the challenges and risks posed by the virtual world to young people by relegating the knowledge of who the owners are. It highlights the increased access to information and knowledge afforded by the new digital and electronic media, as well as the greater possibilities for freedom of expression and good governance which favor democratic participation.

With regard to globalization, it is worth noting its potential for bringing development issues with a global impact to public awareness and debate, and its positive impact on policy by increasing the flow of information within and beyond national borders and platforms for public discourse.

Figure 4. Connections of the MIL curriculum for teachers (UNESCO) with SI

From the first content module, in which the key MIL themes and concepts are presented, it is stated as essential to know the media market, its ownership and control, since it defines contents and processes. The last module, catalogued as optional, is dedicated almost completely to the market and the media industry: knowledge of ownership, analysis of the socio-cultural and political dimensions of globalized media and the emergence of alternative media.

4. Discussion and conclusions

Having established the close connection of SI with education in communication through the dimensions of media competence (Ferrés & Piscitelli, 2012), it is worth noting its interrelation with the "Ideology and values" dimension, a result that is emphasized by corroborating that teachers of Education and Communication in Spanish universities consider this dimension to be "one of the most relevant to approach media education teaching" (López & Aguaded, 2015: 193). The relationship of SI with MIL competencies in UNESCO’s curriculum for teachers is determined fundamentally through those that include an understanding of the roles that the media and information have in democracy, the analysis of the socio-cultural context of content and its critical evaluation. In all cases, the strongest connection is through the field of SI that we have called "Consequences", with terms coming from the context of the
rights to freedom of expression and information. The content analysis also confirms, from a quantitative standpoint, that many of the key themes addressed by the MIL curriculum for teachers are related to those of the SI. Moreover, through a qualitative analysis, a series of fundamental weaknesses in this connection are detected. The rupture with the structural approach occurs mainly when the curriculum loses its stated critical spirit, contradicting itself, the result of certain tensions in a struggle for the politically correct, in many cases only understandable in light of historical processes (Quirós & Sierra, 2016). It contradicts the conceptualization of the media, asserting that one can trust what they say and, at the same time, address them in a critical way, a key to educational success in the current context, where skills for ascertaining the credibility of information are crucial (Kahne & Bowyer, 2017). The same happens when mentioning the existence of editorial processes—implying the selection and production of contents—but which, when assumed to be determined by journalistic values, are relieved from any interest outside journalism. Similarly, it decays when journalistic activity is portrayed as a window to the world and its functions are explained: the idea of the media as the fourth power is still an idealization, ignoring the fact that the major media are themselves immense corporations.

Another point under review is UNESCO’s emphasis on the key factors of journalistic practice, such as the organization of knowledge, truth or independence, in relation to the journalist rather than the businessperson. Other divergences are found in the conceptualization of pluralism that is skewed towards the market, without questioning the fact that multiple media and even numerous owners do not necessarily imply a diversity of voices. Added to this index of weaknesses is its stance on globalization—although the UN has already lowered the level of optimism (Puddephatt, 2016; UN, 2017)—including technology and new media, by not stressing the crucial role of understanding Internet ownership. In fact, the study module entitled “Opportunities and Challenges on the Internet” is the one that, of those related to SI, has the weakest link to it. In the MIL curriculum, an awareness of media ownership, basic to all other aspects of SI, is considered crucial as it implies knowing who is delivering the message. Even more so when, at present, the promoters of disinformation and “fake news” have created “pseudo-media, which, with professional presentations and a legitimate appearance, have extinguished the limits between information, opinion and ideology” (Del-Fresno-García, 2019: 6). And since disinformation agents do not act independently but use a network of apparently autonomous sites and accounts to replicate content (Alaphilippe & al., 2019) and increase trust, the placement of the module dedicated almost exclusively to the ownership and control of the media at the end of the curriculum and its classification as optional is incongruous. Despite the degree of flexibility and adaptability in the application of its modules, the document offers an organization and structure, implicit in the evaluation of the themes and prioritization of the contents.

The curriculum fails to provide valid tools to gain knowledge about the media market, given that information about the ownership and ultimate control of companies is not always easily accessible. In addition, it involves more than just knowing which groups have which media, it requires delving deeper into questions like who the owners are, relationships with other industries, the degree of dependence on the financial environment, its implications as advertising media or the degree of concentration of information and advertising in a given market, some of which are subsequently pointed out by UNESCO itself (Mendel, García-Castillejo, & Gómez, 2017). This underscores the need to update some of the fundamental approaches of UNESCO’s MIL curriculum for teachers, aligning more closely with the spirit stated in writing. It is a challenge to confront the power of the media and to assume the rejection that the existence of a real critical vision can generate within the media. However, rapid technological change, the ubiquity of disinformation and the pivotal role of understanding the agents involved, as well as the development of critical thinking to address it, require an updated curriculum and its periodic revision, making it more necessary than ever to approach it from a structural perspective that favors critical citizenship and the democratic process.

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