ABSTRACT
The technological landscape in relation to the minors presents numerous challenges facing the telecommunication industry, with families and schools. However, academic literature still remains silent in showing the strategic policies that the industry is managing in order to address these challenges. Therefore, this article has two aims: to provide an overview of the state of the art in order to present the main findings of the child protection policies in international telecom companies (17), stressing the analysis regarding their products and services and how they manage the collaboration with key stakeholders. Research was conducted using qualitative methodology: CSR reports and websites of the companies were analysed in order to define their strategic actions, as well as the individuals and institutions that collaborate. The findings show interesting insights, even with some differences by regions, among the most significant policies pursued by the sector are: self-regulation, product innovation regarding protection tools and a network of collaborations with stakeholders have been established, as an opportunity for facilitating new policies and strategies. In conclusion, telecom industry needs to integrate their policies regarding minor protection, promoting an integral management approach that comprises not only product development but also strengthen relationships with the main stakeholders as parents and institutions.

RESUMEN
El paisaje tecnológico de las pantallas en relación al menor apunta a numerosos desafíos que la industria afronta junto a las familias y al sector educativo. Sin embargo, hay poca bibliografía que aborde en las políticas estratégicas que está implementando el sector para hacer frente a estos retos. Por ello, este artículo tiene dos objetivos: en primer lugar, realizar una síntesis del estado de la cuestión para, seguidamente, presentar los principales hallazgos sobre cómo están afrontando este panorama las 17 principales empresas internacionales en su política comercial y en su relación con grupos de interés. La metodología aplicada es de carácter cualitativo, y analiza los informes de responsabilidad social y webs de las compañías, con el fin de identificar las líneas estratégicas y acciones empresariales, así como las personas e instituciones con quienes colaboran. Los resultados muestran que, pese a algunas diferencias entre regiones, el sector se atiene a un interés por la autorregulación, la innovación en los productos, en las herramientas de protección, así como en el mantenimiento de una estrecha red de colaboraciones con grupos de interés, que permite retroalimentar las políticas y estrategias. De este análisis se concluye que el sector necesita integrar las políticas de protección al menor no solo con el desarrollo de productos responsables, sino estrechando aún más los vínculos con grupos de interés clave como padres e instituciones.

KEYWORDS | PALABRAS CLAVE
Menors, online protection, telecommunication, strategy, services, products, responsibility, technology.
Menores, protección en línea, telecomunicaciones, estrategia, servicios, productos, responsabilidad, tecnología.
1. Introduction and Background

Children and teenagers are growing up in a connected world where screens—Internet, videogames and cell phones—have taken on a greater importance. This technological panorama shows us millions of minors with screens in their pockets, giving them permanent access to contents that they themselves can create for their own and shared use.

In spite of the novelty of digital technology, it is true that the relationship between minors and the media has always attracted the attention of academics. In the 1930s we find the first research into cinema and media has always attracted the attention of academics. Following the classification used by Bringué & Sádaba (2008), there are three major subject groups dealing with the relationship between minors and technology: consumption patterns, effects of use and legislative development.

The first of these analyzes the access and consumption of the child and teenage population groups (Colás & al., 2013; Tolsá & Bringué, 2012; Bringué & Sádaba, 2011, 2009, 2008; Sádaba, 2014, 2008; Rideout & al., 2010; Staksrud & al., 2009; Lenhart & al., 2008; Hasebrink & al., 2008). These studies describe quantitative aspects such as the technological equipment in homes, place of access, moment of access and time spent, together with the influence of socio-demographical variables such as sex, age and socio-economic status. There are many studies on the consumption of traditional media and new technologies (Rideout & al., 2005) and minors’ attitudes towards them (Jones & Fox, 2009; Livingstone & al., 2010; Lenhart & al., 2005). Particular international relevance has been given to the projects «EU Kids Online I and II» coordinated by Sonia Livingstone (Livingstone & al., 2013; D’Haenens & al., 2013; Livingstone & al., 2012) and those carried out by the «Pew Research Center» in the United States (Jones & Fox, 2009; Lenhart & al., 2008, 2006).

A second group of work delves deeper into the effects of these technologies (Byron, 2008; Livingstone, 2009), with special emphasis on the negative and positive consequences shown as risks and opportunities. The typology proposed by Livingstone & Haddon (2009) classifies three risks: contents, contacts and conducts. Regarding the positive potential, they underline the benefits for education, socialization, learning, participation, promotion of entertainment, creativity and documentation (Mid daugh & Kahne, 2013; Livingstone & al., 2012; Staksrud & al., 2009; Livingstone & Haddon, 2009; Janes & Fox, 2009; Byron, 2008; Hasebrink & al., 2008; Katz, 2006; Buckingham & Rodríguez, 2013).

Finally, in the studies on the development of legislation, which are focused on the protection of minors, according to Tolsá (2012), there are three key elements which are particularly relevant in this area: regulations, family mediation and media literacy. These studies aim to inspire measures to protect the physical and psychological integrity of the minor (Lunt & Livingstone, 2012). Carlson (2006) highlights the importance of a system which combines regulation and self-regulation, taking into account that technology is advancing at an incredible rate and that current legislation may easily become obsolete. Most of the few studies on self-regulation analyzed, on the one hand, regulatory and legislative policies and, on the other, the operators’ codes of conduct (Lievens, 2007; Ahlert & al., 2005). They are all aware of the constraints in the existing judicial solutions and advocate a common self-regulatory framework for the whole industry. As regards family mediation, the need for parents to control and accompany their children in this new digital reality is emphasized. The parental figure is of great importance to instill guidelines and habits for the use of these technologies (Llopis, 2004; Austin & al., 1999). Finally, the studies focusing on the spread of educational knowledge are a valuable resource for the promotion of responsible use (García Matilla, 2004; Buckingham & Domaill, 2003).

In this third field of regulatory studies, only limited attention has been paid to the role of the telecommunication companies in spite of the fact that over many years they have proposed numerous self-regulation codes and policies concerning child protection. It is difficult to gauge how much of this is genuine or self-interested, although different international organizations such as the European Commission and the International Telecommunications Union (ITU) have insisted on the need for the collaboration and involvement of public authorities, the industry, education agents and civil society. Nor must we underestimate the contribution of the social context in ensuring that companies behave in a socially responsible way: this has been formalized in the development and consolidation of the areas of Corporate Social Responsibility. Whatever the case, and far from acting unilaterally, we see
that the operators have begun to develop multiple relationships with stakeholders such as schools, families, specialized NGOs, public authorities, expert researchers and even communication media in an effort to contribute to the protection of children and teenagers in the digital world.

The interest of these companies in being part of this debate may be explained from the double perspective of social responsibility and market logic. Applying McNeal’s classification (1987), the relationship of children and teenagers with ICT takes on a threefold dimension: present, future and influence. Present because they are users of 2.0 services, and create contents and use social networks and online games with great skill. The future dimension indicates that in a few years these users will be adults and potential customers for these services. Finally, their influence can be seen in family shopping decisions, for example, in the categories of products such as toys, food or entertainment and, without doubt, technology as well. These issues are not ignored by the marketing departments in the companies (Jiménez & Ramos, 2007), given that young people are a very attractive market for the operators. The European Commission estimates that in the future this segment will generate 30,000 million Euros (Clarke, 2005).

However, this is a sensitive and vulnerable age group. Clarke (2005: 4) defines them as «our protected market». Their cognitive development is not comparable to that of an adult and, therefore, they are not always aware of the opportunities and dangers. Consequently, children may make improper use of contents or access contents which could harm them. However, we can also intuit a field of opportunities for a company which, as an expert in ICTs, has greater knowledge to reduce risks but also to make the most of innovation and of the development of tools as the bases for future business lines which will, then, become important means for generating income.

The complexity of acting on this age group, which is still dependent on the family and school, makes joint action necessary. In the words of Carlsson (2006: 14): «No one instrument of regulation is sufficient; today and in the future some form of effective interaction between all three kinds of media regulation –that is, between government, the media and civil society–. All the relevant stakeholders –within government, the media sector and civil society– need to develop effective means by which to collaborate».

From this perspective it is comprehensible that the International Telecommunications Union should intercede so that the public authorities by stimulating regulation, the NGOs– with educational aims, experts

Children and teenagers are growing up in a connected world where screens –Internet, videogames and cell phones– have taken on a greater importance. This technological panorama shows us millions of minors with screens in their pockets, giving them permanent access to contents that they themselves can create for their own and shared use. In spite of the novelty of digital technology, it is true that the relationship between minors and the media has always attracted the attention of academics.

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plex approach taking into account not only the characteristics of children and young teenagers but also the market pressures, the social and economic nature of the companies together with the current technological acceleration. All of the above is faithfully reflected in the policies proposed by the sector. The objective of this article is to find and analyze the main action points of the companies in the sector on the subject of online protection of minors, in order to identify their strengths and the tendencies they have in mind.

2. Material and methods

From an international perspective, this section shows the policies followed by different telecommunications companies. To do so, we have selected operators who have developed formal policies on the proper use of new technologies. As there are no earlier studies giving a list of operators regarding this topic, a theoretical focus group has been followed (Denzin & Lincoln, 1994; Visauta, 1989), not a statistical one.

The telecommunications companies are aware of their particular responsibility to lay down the foundations for a safe virtual world for children and teenagers. In this sense, collaboration and association within the industry are key points in the process. The agreements signed bring together the main representatives of the sector in order to share knowledge, initiatives and new tools for the protection of minors. But the telecommunications companies are only one piece in the jigsaw also made up of radio broadcasters, social networks, application creators, content developers and gadget manufacturers.

The following are the criteria which justify the selection of the sample:

Firstly, given that this is an international study and following a relevance criterion, we turned to the latest "Wireless Intelligence" report. It gives a list of the 20 telecommunications companies with the most mobile connections and the highest incomes in the world: China Mobile, Grupo Vodafone, Grupo América Móvil, Grupo Telefónica, China Unicom, Grupo Verizon Wireless, VimpelCom, Orange Group, Grupo Bharti Airtel, AT&T, China Telecom, Deutsche Telekom, Grupo MTN, Grupo Telenor, Grupo Telecom Italia, NTT DOCOMO, Sprint Nextel, Sistema Group, Telkomsel, au (KDDI) (Wireless Intelligence, 2014). However, not all of these have this type of policies, so some of them have been ruled out.

Secondly, to see their appropriateness for the aim of the research, from among the above companies we analyzed those that had signed some of the principal agreements for the sector. These are: «CEO Coalition to make Internet a better place for kids», «European Framework for Safer Mobile use by Young Teenagers and Children», «Safer Social Networking Principles», «Pan-European Games Information System», «Mobile Alliance against Child Sexual Abuse» and Principles for a Safer Use of Connected Devices and Online Services. For this reason, seven of these have been ruled out: Grupo América Móvil, China Unicom, Grupo Bharti Airtel, China Telecom, Sistema Group, Telkomsel, au (KDDI).

Finally, four additional cases have been selected due to their interest in this area: Yoigo and Ono, two Spanish companies which, although they have a smaller turnover, are developing important policies on minors; British Telecom which, although not included in the «Wireless Intelligence» report, is outstanding for its contribution; and Telmex, a Mexican multinational which in the last few months has developed important education programs. In short, following the three above-mentioned criteria, the sample is made up of the following companies: Orange, Vodafone, Telefónica, Deutsche Telekom, Telecom Italia, VimpelCom, Telenor, AT&T, Sprint Nextel, Verizon, NTT, China Mobile, MTN, Telmex, Yoigo, Ono y British Telecom.

The methodology used was document analysis of the reports of Corporate Social Responsibility (CSR) and of corporate websites over the last year. The latest available reports1 2012-13 and websites2 date from
the period between February 2014 and April 2014. Both types of platform are considered by the experts to be the most frequently used for the reporting information on social responsibility in companies (Moreno & Capriotti, 2009; Kolk & al., 1999). Thanks to the richness of contents, data can be found on the most common corporate actions and the stakeholders: schools and educational institutions, types of authorities, most outstanding NGOs, commercial partners, awareness campaigns, etc. This information groups what the companies say regarding their protection programs, most of which comes from their CSR departments.

The document analysis was carried out by means of a set of analytical-synthetic procedures on the subject-matter of the platforms (Yin, 2011; Weber, 1990). This was executed through a technical reading of the documents and the websites in search of the parts that reveal greater content on protection policies for minors and new technologies. Once the most significant topics had been identified, a set of content categories was applied to the analyzed material: (1) the strategic guidelines of each company: related with the strategic objectives pursued with these policies. As we have seen in the previous section, the relationship between minors and new technologies implies multiple challenges for the industry, from self-regulation to collaboration with social agents. (2) Actions within the strategic guidelines of the companies: projects and specific activities are developed which include the resources needed to undertake them. (3) Groups of interest: each type of action is addressed to a specific group of interest. Among them: the minors themselves, educators (parents, teachers and siblings), the ICT industry, public institutions, NGOs, civil associations, journalists and experts.

3. Analysis and results

The analysis of the main policies of the telecommunication sector in the area of child online protection takes into account the aforementioned companies listed in the following order: Orange, Vodafone, Telefonica, Deutsche Telekom, Telecom Italia Group, VimpelCom, Telenor Group, AT & T, Sprint Nextel, Verizon, NTT Group, China Mobile, MTN Group, Telmex, Telstra, ONO and British Telecom. The analysis has been done according to three elements. First, the strategic lines of each company are specified in the short and medium term. These guidelines respond to substantial advances in technology to assess and respond to children’s needs in the online world. Among them is how the ICT industry can help promote safety for children using the Internet or any technologies or devices that can connect to it, as well as guidance on how to enable responsible digital citizenship, learning and civic participation. The updated version provides guidance specifically aimed at companies that develop, provide or make use of information and communication technologies. Second, the actions that each company are developing to achieve their strategic lines are analysed. These include codes of conduct, systems to notify suspected online abuse, and how they drive innovative solutions and create digital platforms that can expand educational opportunities. Finally, we present the stakeholders involved and the partnerships, including governments, companies, civil society, parents and educators. The table can be viewed at the following link: http://goo.gl/KyoiTU.

As a result of this analysis five strategic lines may be drawn on the telecommunication sector regarding the online protection of children and teenagers:

1) Self-regulation. In its Recommendation 98/560/EC of 24 September 1998, the European Commission requires «promoting the voluntary establishment of national frameworks for the protection of minors and human dignity. This involves encouraging the participation of relevant parties (users, consumers, businesses and public authorities) in establishing, implementing and evaluating national measures taken in this domain» (European Commission, 2012b). Examples of this are the internal codes of conduct regarding the services and contents commercialized by the operator’s brand which often extend to the contents of its suppliers. But perhaps what best guide the self-regulation of the industry are the sectoral codes. Also noteworthy regarding Internet is «CEO Coalition to make Internet a better place for kids» of December 2011, promoted by the European Commission, and in the area of cell phones the «European Framework for Safer Mobile Use by Young Teenagers and Children» of 2007. Other agreements signed by the industry are: «Safer Social Networking Principles, Pan-European Games Information System», «Mobile Alliance against Child Sexual Abuse» and «Principles for a Safer Use of Connected Devices and Online Service».

2) Products and services. This refers to the development of specific tools, most of which are for the protection of younger users. Outstanding amongst these tools are the systems that restrict access to certain unsuitable contents, together with limits of time/use, shopping and online applications commercializing product packs which allow for personalized configuration. Also of assistance is the availability of helplines through which customers can complain about illegal contents.
3) Awareness and information. This may be the most important strategic line in European companies whereas some companies in the United States and Japan make more effort with the development of the above-mentioned tools. The International Telecommunications Union (2009: 17) defines the role of industry and families as «overlapping, but differing» and suggests «a need for a national-base and shared strategy to keep children safe online, that is capable of influencing and empowering both industry and families». Given that sometimes minors have greater skills, the industry invests in awareness and information programs which address teachers. The awareness programs hope to attract attention to the importance of spreading educational habits in the use of TICs.

4) Classification of contents. This is based on accepted national norms which are coherent with the methods applied in equivalent media, for example, games or movies. Traditionally, they are classified as mobile commercial content, that is, content produced by mobile operators or in collaboration with third parties. Nevertheless, given the problems in practice, some countries have committed themselves to establishing a dual system of classification with contents for adults only and general/other. Regarding illegal contents (pornography and violence against children), most companies offer a helpline for complaints.

5) Collaborations. A good example of joint effort is the grouping of associations and strategic agreements between companies and institutions. The need for different social agents to be involved is being accepted. According to Carlsson (2006: 12), children’s disadvantage in front of media requires a higher involvement of all those responsible of their protection. The operators construct bridges with different public authorities –ministries, law enforcement agencies, local administration, etc., NGOs and civil associations, educational institutions, representatives of families, and expert researchers– with inter-sectoral agreements. Thus, all the companies tighten their links with the same groups of interest: parents and teachers, national and international public institutions, commercial suppliers and partners, other operators, NGOs and civil associations, journalists and experts. However, within these large groups, each firm is in contact with specific individuals.

4. Discussion and conclusions

We can see how the industry is adopting voluntary self-regulatory measures which show their permanent commitment to the protection of young people. The telecommunications companies are aware of their particular responsibility to lay down the foundations for a safe virtual world for children and teenagers. In this sense, collaboration and association within the industry are key points in the process. The agreements signed bring together the main representatives of the sector in order to share knowledge, initiatives and new tools for the protection of minors. But the telecommunications companies are only one piece in the jigsaw also made up of radio broadcasters, social networks, application creators, content developers and gadget manufacturers.

Nonetheless, for the moment, most of the industry’s policies have been motivated by public institutions such as the European Commission or the International Telecommunications Union, with agreements which include some directives which must be obeyed by the signatory companies. For this reason, a certain uniformity can be found in the policies of the companies analyzed, especially amongst the European ones as they are limited by the lines marked by the European Commission.

Differences between regions can also be found. While the European telecommunications companies place great importance on policies regarding education and information, the analyzed American and Asian companies focus their protection policies on the product and service. More specifically, this means that whereas the former consider these programs as part of their Corporate Social Responsibility policies, the latter include this information in the customer business areas on their websites. However, the two perspectives should work together. Parents and teachers must be given the information necessary to understand how young people use ICT services in order to educate them to become responsible users. The literature points out that education and communication with the users are fundamental to guarantee an appropriate digital experience for children and teenagers. These education programs addressing parents deal with topics such as contents and services, inappropriate contacts and privacy management. However, awareness is only part of these policies as there is also a need for the development of products and services which from their very conception avoid risks for young people as much as possible.

All of the corporations that were analyzed have developed tools intended to minimize the dangers of use and, to a lesser extent, to advance the proper use of new technologies. This can be confirmed if we compare the number of instruments intended to minimize risks –content filters, access restriction, blocking etc.– to those intended to maximize the potential of...
new technologies such as GPS tracking systems and tools for schools support.

In this specific area of children and teenagers, the challenges and opportunities spring from a common source: the use of these companies’ services. Future research could analyze how this is managed within the companies. In this sense and a priority, it might be better to integrate these policies into organizational units dedicated to the development of products and services in such a way that their safe and responsible use would be included in the commercial offer. They could, in this way, avoid risks and create new tools from an area closer to the phases of conception and development of services. At the same time, their actions for the protection of minors should not share management with other areas of the Department of Corporate Social Responsibility such as investments in the community, employee volunteering programs or the environmental impact.

The development of these policies favors the industry itself as it promotes user confidence. This is not surprising since, in their preferences, the stakeholders express interest in features such as Web quality, coverage, and connection speed together with pricing, but also appreciate variables such as social responsibility and company commitment to the public, especially concerning children and teenagers.

Notes
1 According to the European Commission media literacy is «the ability to access the media, to understand and to critically evaluate different aspects of the media and media contents and to create communications in a variety of contexts».
2 For Freeman and Reed (1983: 91), «stakeholder» is «any identifiable group or individual who can affect the achievement of an organization’s objectives or who is affected by the achievement of an organization’s objectives».
4 Websites, a section dedicated to social responsibility, protection of minors. In the case of American and Asian companies customer service is included in the commercial offer. They could, in this way, avoid risks and create new tools from an area closer to the phases of conception and development of services. At the same time, their actions for the protection of minors should not share management with other areas of the Department of Corporate Social Responsibility such as investments in the community, employee volunteering programs or the environmental impact.

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