Memes about technology in schools. A study of student productions

Memes sobre las tecnologías en las escuelas. Un estudio de las producciones estudiantiles

Memes sobre tecnologia nas escolas. Um estudo das produções dos estudantes

Virginia Saez, Consejo Nacional de Investigaciones Científicas y Técnicas / Instituto de Investigaciones en Ciencias de la Educación, Universidad de Buenos Aires, Ciudad de Buenos Aires, Argentina (vsaez@filo.uba.ar)

Dafne Carp, Instituto de Investigaciones en Ciencias de la Educación, Universidad de Buenos Aires, Ciudad de Buenos Aires, Argentina (dcarp@filo.uba.ar)

ABSTRACT | Memes are cultural objects that, because of their power and impact, generate innovative modes of knowledge construction. As a general objective, we intend to characterize and analyze the productions of the photography and memes contest Memes in The Media in School 2019 in the Argentinian context. The participants, aged 12 to 18 years, were motivated to express their reflection on the media and technologies in the classroom through memes. From the qualitative analysis of a sample of 32 pieces, the latter are evidenced as significant symbolic resources for adolescents, due to their capacity to condense identity senses, in their relationship with technologies and their differentiation from adults.

KEYWORDS: memes; identity; students; high school; Argentina.

RESUMEN | *Los memes constituyen objetos culturales que, por su potencia y proyección, generan modos novedosos de construcción del conocimiento. Como objetivo general nos proponemos caracterizar y analizar las producciones del concurso de fotografías y memes Los Medios en las Escuelas 2019 en el contexto argentino. Los participantes, de entre 12 a 18 años, fueron motivados a expresar su reflexión sobre los medios y tecnologías en el aula mediante memes. A partir del análisis cualitativo de una muestra de 32 piezas, estos últimos se evidencian como recursos simbólicos significativos para los adolescentes, por su capacidad de condensación de sentidos identitarios, en su relación con las tecnologías y su diferenciación con los adultos.*

PALABRAS CLAVE: *memes; identidad; estudiantes; escuela secundaria; Argentina.*

RESUMO | Os memes são objetos culturais que, devido ao seu poder e projeção, geram novas formas de construir o conhecimento. Como objetivo geral pretende-se caracterizar e analisar produções do concurso de fotografias e memes chamado "A Mídia na Escola 2019" no contexto Argentino. Os participantes dentre 12 e 18 anos foram motivados a expressar sua opinião sobre a mídia e tecnologia na sala de aula usando memes. A partir da análise qualitativa de uma amostra de 32 peças, encontramos os memes como recursos simbólicos significativos para os adolescentes, devido à sua capacidade de condensação de sentidos de identidade, na sua relação com as tecnologias e sua diferenciação com os adultos.

PALAVRAS-CHAVE: memes; identidade; alunos; ensino fundamental; Argentina.

INTRODUCTION

Internet memes produce a textuality where who looks and who is looked at appear, where specific discourses full of meanings are produced. They are the product of a group that occupies a place in the social structure, the result of a choice that involves aesthetic and ethical values. They constitute useful tools for social scientists, since they are multimodal sources of communication phenomena, which provide information with a greater value due to their semiotic potential; in addition, they are considered discourse forms generated in the network from social interaction, which has a broad cultural value, and are carriers of symbolic representations (Valverde, 2015, in González-Carmona, 2017). They serve to establish a certain vision of the world in the public's mind and have an important role within the contents of communities and spaces of belonging, since they can exert cognitive and affective effects. A meme will have power and impact because of what it shows and how it shows it, according to the communication context and its purposes. The analysis of these new forms of communication allows us to identify and understand some elements of the identity configuration of those who create, share, and even appropriate them (Vélez, 2012, in González-Carmona, 2017).

This research provides an analysis of the memes presented in the photo and meme contest *Los Medios en la Escuela 2019*, in which students from different schools in Argentina were encouraged to produce memes reflecting on the use of media and technologies in the classroom. This contest was conducted with two main objectives. First, the production of memes brings into play different skills and management of new literacies (Saez, 2019a). According to Arango Pinto (2015), the realization of a meme involves digital skills, such as the selection of a topic, which may require information search, editing, and dissemination. On the other hand, the structure of the meme requires a great synthesis power to be able to condense what is to be transmitted in an image, a short text, or a video. Finally, knowledge of a certain register and some contextual features, such as some elements of pop culture, are important when creating memes and understanding them.

The contest's second purpose was to explore, understand, and describe the representations that schools have about media, communication, and technology, so that we could give voice to the students' own conception of the value of information and communication technologies (ICTs). Some see ICTs as a tool for social inclusion (Buckingham, 2009) and stress the need to integrate them into the classroom, but what do young people think about this? What views do they have on the role played by technologies today?

Due to their recent appearance, memes, with their traces and traits, constitute a scarcely valued knowledge. As culture documents, they can become indicators

of how an era is conceived. The search for signs of change and the recognition of present tensions and struggles are valued aspects in the study of media education.

In this scenario, memes are often used to convey to readers those ideas that can hardly be put in writing in other genres. As symbolic representations, they are a small knot in a large skein of conflicts and interests. Immersion in digital culture and the demands of current technological innovation need research that delves into new semiotic modes and ways of constructing knowledge. At this point, the multimodal study of memes can contribute by introducing students to semiotic domains with their own rules, where they must learn to share meanings with them.

Thus, the aim of this article is to characterize and analyze the productions of the meme contest *Los Medios en la Escuela 2019* in the Argentinean context and, in this way, to approach the meanings attributed to them from the students' point of view (young people between 12 and 18 years old). We sought continuities in the selected memes series to notice forces in tension whose result would be the change or continuity of a form (of a system, perhaps of a worldview). In addition to the explicit intentions of those who created them, memes express the system of thought-perception schemes or the implicit value system of the group (Bourdieu, 1979). In other words, it is a manifestation that can lead us to thought-perception schemes.

THEORETICAL APPROACH

The first time the term meme was used was by Richard Dawkins (1979) in his book *The Selfish Gene*, to designate a "unit of culture capable of transmitting itself and surviving in a given social ecosystem" (Ruíz Martínez, 2018, p. 997). Since then, the term has been adopted by popular discourse, according to Shifman, to describe "the propagation of items such as jokes, rumors, videos, and websites from person to person via the Internet" (2014, p. 2). The author distinguishes three dimensions of cultural items that people can potentially imitate: content, form, and stance. The first, content, refers to both the ideas and ideologies transmitted. The form is the physical embodiment of the message, perceived by our senses. Finally, the stance represents the ways in which the alluded and other potential producers position themselves according to the text and its linguistic codes. Based on these assumptions, she defines memes as "(a) a group of digital items sharing common characteristics of content, form, and/or stance, which (b) were created with awareness of each other, and (c) were circulated, imitated, and/or transformed via the Internet by many users" (Schifman, 2014, p. 41). This characterization is useful to understand those productions in which students reproduce certain units that were already used to make other memes circulating in the networks. Of these, in the case of the meme productions analyzed in this

study, what was mainly imitated was the form, adopting the theme proposed by the contest. Even so, not all the images selected are memes, i.e., not all of them reuse a communicative structure to re-signify it. Winocour (2019) draws attention to the memes' function of identity appropriation and how they favor inclusion and belonging in different groups of young people. Likewise, Gabriel Pérez Salazar (2017) states that memes can function as resources to elaborate the relationship of otherness. Consequently, it will be used as a methodological tool to observe what elements constitute young people as a group.

Memes are characterized by the use and juxtaposition of diverse digital, semantic, and literary resources (Arango Pinto, 2015). These are joined incongruently in the same frame: for example, there may be incongruence between the image and the accompanying text. This generates an "irritating dialogism" (Huntington, 2016, p. 85 in Ruíz Martínez, 2018, p. 1016) that seeks a response from the reader. In addition, memes resort to intertextuality: the content usually relates the idea or argument that is intended to be transmitted with a phenomenon of popular culture that must be known to understand it. Pop culture thus serves as a common cultural base (Ruíz Martínez, 2018). Another feature of memes is humor. According to Shifman (2009), "humorous texts can convey information about social issues, often ridiculing deviations from "correct" behavior (Billig, 2005; Boskin, 1997). Thus, values and norms presumably help to determine a joke's success". Humor, according to Argano Pinto (2015), is also used in memes as a form of social criticism. A specific type of meme, very widespread nowadays, is the macro semiotic structure. "This consists of a still image, accompanied by a text inserted in it. Sometimes this text usually has two parts: a protasis or proposition, in the upper part of the image, and an apodosis by way of conclusion, refutation, or paradox in the lower part" (Ruíz Martínez, 2018, p. 1012). There are some images that are frequently used to produce memes, alternating the text in each case. In fact, the main programs or applications for generating memes consist of a catalog of images to which the corresponding text can be simply superimposed. Most of the productions selected in this study fall into this category.

In a scenario of technological convergence, memes emerge as a recurrent narrative of digital spaces (Racioppe & Párraga, 2020) and have become a discursive genre present in the school field, so much so that some research (Lara & Mendonça, 2020) suggests the incorporation of memes in didactic books to update teaching practices at school.

The medium through which memes circulate the most, at least in Argentina, is Instagram (Racioppe & Párraga, 2020), so we assume that the students' productions are based on publications found in this social network. Instagram meme pages are, in general, managed by one or more people anonymously. The most commonly

used type of meme is the macro image. "Images are obtained from Internet banks, captures from television programs, series, movies, and also from the same digital social networks; then texts are added to anchor the senses" (Racioppe & Párraga, 2020, p. 53). Consequently, we assume that the predominance of memes with macro images in the students' productions is due to the influence exerted on them by these Instagram accounts.

Case study description

Our interest in studying the semiotic modes of memes on high school arose within the framework of the research project FiloCyT Project FC19008 *Sentidos y Prácticas sobre la Educación Mediática en el Nivel Secundario* (Senses and Practices on Media Education at the Secondary Level) and the PIUBAMAS dissemination project *Descolonización de la mirada. Un dispositivo de acompañamiento para el uso de los medios de comunicación como herramienta pedagógica en la formación docente* and (Decolonization of the gaze. A support system for the use of the media as a pedagogical tool in teacher training), which aim to explore and understand the technology-mediated practices of young students and teachers in Argentinean schools.

The case selected for the study was the *Los Medios en las Escuelas 2019* contest, which had two purposes. On the one hand, to explore, understand and describe the representations that inhabit schools about media, communication, and technology. On the other, to help young students to develop the expressive capacity and promote creativity about the use of media in schools.

From the projects that frame this publication, the contest called on the educational community to submit memes with the aim of reflecting on how technological media are used in the educational space, how we learn with the media, and what potential the media have for teaching at different educational levels. The contestants had the option of providing clarifying comments along with the delivery of the pieces. Works were submitted from different educational levels, modalities, and regions of the country, making up a sample of 32 productions, from young people between 12 and 18 years old, from state and private public schools, from all over the country.

METHODOLOGICAL STRATEGY

As a methodological precaution, we emphasize that memes are polysemantic, they condense several layers of meaning, some permanent and global, and others ephemeral, contingent, and local. They allow for varied readings and appropriations, within a certain community of peers, which can be global or local. Therefore, in this article, we will try a reading that we know may be revised and expanded in

future works. Given the characteristics of the research objective, the methodological approach is qualitative. This is consistent with the interest of our work in accessing a more complex and deeper understanding of the study phenomenon, which provides the possibility of contributing to add interpretative knowledge and elaborate substantive hypotheses (Sirvent, 2003); hence the need to assume a set of decisions and deploy qualitative methodological strategies and techniques. The global and sequential ordering of the information have been defined as units of analysis. In line with the objectives and the approach of this research, we used a non-probabilistic qualitative purposive sampling. This type of sample does not seek to generalize the results, but rather to contribute to a deeper understanding of the research problem (Hernández Sampieri, Fernández Collado, & Baptista Lucio, 2010). Theoretical saturation (Glasser & Strauss, 1967) was conducted based on the categories that emerged from the preliminary analyses. To approach the units of analysis, we worked with material already available, what Wainerman and Sautú (2011) identify as secondary sources, as they contain organized, elaborated information, product of the analysis of the contestants, young people between 12 and 18 years of age. To observe and code the memes pages, an interdisciplinary team was formed with students of Literature, researchers in Educational Sciences, Political Sciences, Sociology, and Social Communication. Analysis criteria were constructed according to the degree of adequacy to the contest's theme and the semiotic possibilities of each production.

Considering composition, interaction, and visual narrative processes, we sought to describe the resources used by young people to convey their message. Composition accounts for informative value, prominence, and framing. Interaction allows us to analyze the relationship between the participants of the image and the audience, while visual narrative processes provide information on how they relate to each other. It is also interesting to analyze what behaviors students ridicule and thus to understand the relationship between them and technology, the way they constitute themselves as a group, and the way they relate to the audience (with the audiences or with their public or with Internet users).

For coding, we used Atlas Ti 7, a software specially developed for the treatment of qualitative data. We must mention that the moment of analysis was not conducted in a specific stage of the research process but intertwined in different moments throughout its development (Valles, 1997); firstly, from the organization and distribution of the materials' semiotic modes, identifying the multimodal aspects (Kress & van Leeuwen, 1996), as well as the global and sequential ordering of the information (van Dijk, 1983). To conduct a multimodal analysis, we rely on the theoretical contributions of Kress and van Leeuwen to study images, to which we add textual analysis. This method was already used in previous works on memes so that "conclusions could be drawn about the representational meta-function

(what the image is about) and the interactive meta-function (what kind of relationship is established with the viewer)" (Piñeiro Otero & Martínez Rolán, 2016, p. 22).

As we work with memes, we approach the analysis of the corpus considering that the production of meaning involves meanings produced from verbal and non-verbal semiotic modes. We understand that the potentialities of the platforms enable (or disable) the use and combination of different semiotic codes and different patterns of information organization. Finally, the meaning of the meme was deepened by means of a global study of the nuclei of meaning. It was essential to study the memes as a whole, with the intention of analyzing a process that would allow for continuity. At this stage, we considered two facets of meme reading: the denoted and the connoted. The former refers to the literal image (Barthes, 1971), that which is shown, visible, and explicit. This aspect was revealed with the study of the morphological level and the compositional level. The connoted refers to the symbolic image (Barthes, 1971), that which is veiled, hidden, and intuited. This study presents the analysis of the four pieces that obtained the highest score from the jury of the *Los Medios en las Escuelas 2019* contest.

RESULTS: THE USE OF TECHNOLOGY IN HIGH SCHOOL AS SEEN BY THE PARTICIPANTS

The young students, creators of these memes, deploy a whole "communicative strategy" (Riego, 1990, p. 174), since every meme is a discursive way of showing the world. In this process, censorship (whether imposed or chosen through self-censorship), alteration or intentional omissions of a reality are practices that have habitually surrounded the work of meme creators.

That is why in this research we considered the space represented in the meme and the excluded space –that which remains outside the frame, outside the space of representation–, since we think that what the meme does not show is as important as what can be seen.

The memes provide us with information about the portrayed subject as well as about the author, his/her aesthetic criteria, and his/her knowledge of the subject, among other things. The author's imprint or *brand* is discernible in them. From a technical parameter, the finalist works are presented in black and white and color, and they were elaborated with digital, analogical, and manual tools. Below, we will analyze four productions, selected for their ability to condense meanings and constitute significant symbolic, ludic, and affective resources on media and technologies in schools.

In the meme *La obsolescencia* (Obsolescence) (figure 1) the student represents an everyday scene in Argentinean high schools, where a teacher is writing on the blackboard while students are using their mobile devices.

Figure 1. *La obsolescencia*[1]

Source: Los Medios en la Escuela 2019 meme contest. Prepared by 15-year-old female student, from a State-run public high school in San Miguel del Monte, Province of Buenos Aires.

This meme is made up of two parts. First, a text explaining the image and below, the photograph. The text mixes English with Spanish, which is popular among young people, especially for communicating on social networks. Moreover, it is a way of manifesting a Saxon meme: sentences started with a temporal clause started by *when*, indicating an unfavorable situation followed by a concession clause started by *but*, indicating the reaction to this situation. Several memes in Argentina reproduced this formulation keeping the *when.... but*, leaving the rest of the text in Spanish. This combination of two languages in the same utterance is known as code-switching. Lanz Vallejo, who studies this phenomenon in networks, describes it as an element of image construction. This is formed from the values approved by society and appreciated by the individual, which respond to the need we all have to feel linked and connected to our peers, but at the same time independent of them and capable of acting with relative freedom. By code-switching, the student inscribes herself in a set of values shared by other young social network users, who also mix English with Spanish in a humorous way, while approaching mass culture. This behavior contrasts with the use of specific

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1. Meme's translation: When the teacher doesn't include the use of mobile devices in the class, but you want to learn more didactically.

vocabulary, such as *mobile devices* or *learning more didactically,* aimed at the contest evaluators. It would seem that a game of rapprochement-alienation between youth and academic culture is achieved. The phone occupies the center of the image, so it attracts special attention, and the student is represented in the foreground, so she is at a close social distance. In contrast, the teacher is in the background and his face is not visible, making him less prominent. In the meme it would seem that two realities come together, presented in a dissimilar and incongruous way: technology and education. The first appears only in the student's hands, and away from the teacher. However, this disjunction is resolved in the written commentary that accompanies the image, where the participant observes the advantages of traditional methods and proposes how the cell phone can be incorporated into them. The text also allows us to reconstruct the creative process of the meme, the observation of a recurring situation in the classroom: "Qe observe that in the classes of most subjects the mobile phone is the protagonist for the vast majority of the course" (15-year-old female student, from a public high school in San Miguel del Monte, Province of Buenos Aires). In the remarks that the student sent along with her meme, she clarifies

> I took several pictures with the teachers' consent to show that the ways in which classes are taught are sometimes boring and tedious for us millennials. I believe that if teachers made use of technological tools such as mobile phones and the many applications that are offered there we could learn in a more dynamic way. I consider that, although the blackboard and the chalk allow us all to see the exercises, in this case of mathematics, each student has different interests and we observe that in the classes of most subjects the mobile phone is the protagonist for the vast majority of the course, not with a didactic use but as a means of escape, perhaps an escape from something that does not generate interest or awakens it. I consider that the cell phone is part of our lives, and we are not generally aware of how to use it other than to log into social networks. It would be a good way to integrate it and learn if we could use it to learn (15-year-old female student from a State-run public high school in San Miguel del Monte, Province of Buenos Aires).

In her reflection, the author does not discard the advantages that traditional education can have. Nevertheless, she warns about the need to integrate new technologies to the existing ones. The use of mobile phones altered the teaching practices carried out in Argentine schools (Lion & Maggio, 2019; Saez, 2019a) and evidenced the need to review teacher training for current classrooms. In a recent research, Iglesias (2019) shows how the incorporation of mobile devices into teaching practices does not constitute an institutional strategy but is left to the decision of teachers.

Figure 2. Fortnite[2]

Source: Los Medios en la Escuela 2019 meme contest. Elaborated by three female students and one male student, all 14 years old, from a State-run public high school in the Autonomous City of Buenos Aires.

In a second meme (figure 2), we can observe a student experience about the distracting power of new technologies, especially videogames. The meme combines text and image. The text introduces the narrative and creates a temporal sequence that allows understanding the lower image as a consequence of the upper one. This structure is also recurrent in other memes manifestations.

The comedic effect is achieved by ridiculing the expected behavior the day before a test. While one may choose to relax in the last hours before taking the test, many students continue to review. The teenager in the upper image (figure 2) calmly plays Fortnite, the most played game by young Argentineans during 2018 (Dataxis, 2020), while in the lower image we see the consequences of the lack of study. In addition, the young man does not contact the public in the form of a demand, so it can be interpreted that the producer does not seek the observer to identify with him, but rather to look at him from a distance due to his reprehensible behavior, even though spending time on the mobile phone is the aspired ideal. This meme makes evident a certain adult gaze on the uses of technologies, which distinguishes bad uses linked to leisure and distraction, such as games or social networks (Iglesias, 2019). However, videogames constitute immersive and experimental environments (Oblinger, 2006; Rose, 2011). A body of research recognizes in some of them activities that generate the need

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2. Meme's translation: The night before the test. But during the test…

to share information and stimulate the strength of collective intelligence as a phenomenon of our time (Lévy, 2004). Young gamers are active problem solvers who see mistakes as opportunities to learn and who never cease to seek better and newer solutions to various obstacles and challenges (Wright, 2017). Games allow to experience the world from alternative perspectives. Identity is projected and constructed through them (Gee, 2003).

A third meme (figure 3) depicts an apocalyptic view of the use of technology by young people. This image, unlike the rest, is not a picture nor an Internet meme, but a pencil drawing. An interpretative hypothesis arises that this resource allows its producer to show a negative side of technology, since it gives her the possibility of constructing a metaphor: the hands that belong to no one give an idea of omnipresence and hold the cell phone and the headphones that keep the people in the drawing restrained. By using a black pencil, she manages to generate a serious and depressive atmosphere that complements the mood of the participants. Likewise, the rejection of technology is reflected in the medium used: instead of utilizing a camera to convey her message, the author refrains from making a composition using a digital medium.

In the image, the participants are in the same space at a close distance, so they could be interconnected by looking at each other but, because of the technology, their eyes do not meet. Likewise, there is no gaze directed at the viewer to invite him or her to become involved or feel connected to the situation. This may be partly because it is not desirable for the audience to imitate what the participants do and partly because the participants are so immersed in their technology-dominated worlds that they do not make eye contact with outsiders to invite them to be part of their world. For authors such as Postman (1983) and Cordes and Miller (2002), the media, especially digital media, threaten and destroy childhood. They find in the media the cause of the aggressiveness and lack of interest that the new generations seem to show in school. This apocalyptic current (Eco, 1968) has its antecedents in the Frankfurt School. Its representatives react to the use of the media as instruments of political and mercantile control and domination. The authors coined the term culture industry to refer to all symbolic production that standardizes mass culture. They argue that media production seeks to ideologize, homogenize content and preferences, promote tastes and needs, and thus block the audiences' discernment. Cultural products of this type, designed to be consumed quickly and distractedly, limit mental discernment, and reproduce domination models. Under the logics of practical sense, agents internalize social structures and assume them as self-evident, subjectively configuring them in their ways of seeing and creating the world (Saez, 2019b).

Figure 3. *Desviados del camino* (Deviating from the path)

Source: Los Medios en la Escuela 2019 meme contest. Prepared by a 13-year-old female student from a privately managed public high school in General Alvear, Mendoza, Argentina.
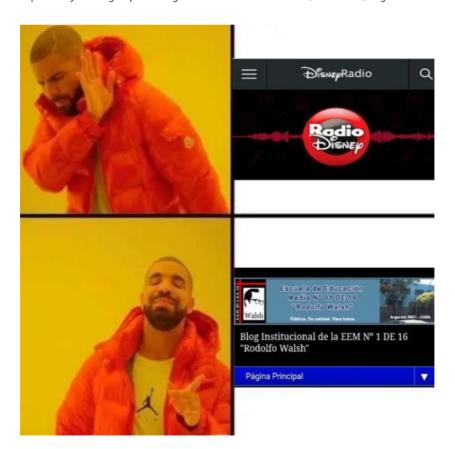

Figure 4. Bloggers

Source: Los Medios en la Escuela 2019 meme contest. Prepared by four female students, aged 16, from a State-run public high school in the City of Buenos Aires, Argentina.

In a fourth meme (figure 4), a youth identity is represented, which the authors call *Bloggers*. The image consists of four pieces. The two on the left show a well-known image used in the realization of several memes. This corresponds to a screenshot of the artist Drake taken from the *Hotline Bling* videoclip, so that the intertextuality with the culture can be observed. An analysis of the visual narrative processes of this meme format could allow us to identify the relationship of the participant with the other images. In the upper image, the artist makes a gesture of distancing and is always accompanied by something (image or text) rejected by the producer, while the lower image indicates what the producer would prefer instead of the upper image, in this case, the Walsh school blog. Humor is achieved by the incongruous juxtaposition of the artist's laughable image with the images that represent the students' preferences. Moreover, by employing the face of someone famous, the meme acquires an ethos linked to certain values he represents: rap culture, a look at American music, belonging to the youth. The blog and the radio are only represented by their logo, so they do not show any attitude of involvement or invitation towards the audience: although Radio Disney may be better known to viewers, the values, activities, and themes at stake within the school blog remain a mystery. It emerges as an interpretative hypothesis that the students assert themselves as within the Walsh school group, leaving out the observers. This reinforces the feeling of belonging generated by memes, since they would allow the re-elaboration of the message from an experience of identity appropriation. In the processes of identity construction that young people go through, secondary schools constitute a reliable social space of "social identification-differentiation" (Morduchowicz, 2008, p. 19) that shape consumption and sociability practices at the local and global level.

CONCLUSIONS

In the information age, technologies refer not only to new devices but also to new modes of perception and language (Barbero, 2003). The culture of connectivity rethinks the limits of the public and private sphere, modifies our subjectivity, and the ways in which we communicate (van Dijck, 2016).

The memes studied in this article symbolize the adolescent view of technologies in high school. We identified different communicative strategies and multimodal resources with possibilities of open and encrypted communication at the same time. As it was possible to notice in previous studies, memes can be used as a factor of cohesion and identity belonging, and at the same time behave as elements of exclusion (Winocur, 2019).

They assume an identity that is strongly defined in the creation of an otherness. Others are fundamental when founding and consolidating the *we*, i.e., they are a constitutive part. In the construction of student identity, the configuration of

a we linked to the use of technologies, videogames (especially Fortnite), code-switching, and pop culture would seem to be present. On the other hand, the conformation of an adult *them* appears, crossed by a digital gap, where tensions and antagonisms between adult expectations and youth experiences are revealed. In line with other research, we observe that in the analyzed memes, there are games of representations (Winocur, 2019) that exclude those who do not know or do not share the identity codes (Costa, Pérez Tornero, & Tropea, 1996).

Even so, it seems that the adult is not completely left out either. Although there is a strong intertextuality with manifestations of youth mass culture, situations such as the night before a test or boredom in class are widely recognizable. In line with the work of Lara and Mendonça (2020), this article identifies the need to incorporate memes as didactic material that enhances educational practices and evidence student views on the inclusion of digital media in schools. Young people's views on technologies are far from unanimous. On the contrary, memes combine vindicating and apocalyptic views. In the *La obsolescencia* meme there seems to be a positive assessment of technology to be applied in an educational way, inviting the receiver to engage with the change in teaching proposed by the young student and even makes the observer a participant, through the over the shoulder angle by which he/she seems to be part of the class. In the *Bloggers* meme, the school's blog is shown in a favorable way, but the fact that it only has a presence through its logo does not allow the observer to become involved. The blog is presented as the place where young students belong, but there is no broader proposal regarding the use of technologies, as in the case of *La obsolescencia*, where the aim is to include the receiver in the new uses of electronic devices. On the other hand, there are other productions in which technology seems to be negatively valued, as in *Fortnite* and *Desviados del camino*. In these, the participants do not adopt attitudes of demand. It emerges as an interpretative hypothesis that this could be due, on the one hand, to the fact that they do not want to encourage the uses of the electronic devices they show and, on the other, to the fact that their use keeps them isolated. This view entails the risk of assuming youth as a group at peril due to exposure to new technologies, instead of taking it as a subject of rights (Saez, 2017).

In a nutshell, different discourses about technologies run through the students' productions. Even though they are considered digital natives, not all young people seem to celebrate technologies and are aware of their negative side. On the other hand, productions that defend an educational use of ICTs (such as *La obsolescencia* and *Bloggers*) see in them a greater potential beyond mere entertainment.

To finish, we would like to make a reflection on the experience of working with young people's memes. Returning to Arango Pinto's (2015) proposal, we were able

to verify the diverse skills that students had to bring into play at the time of their production. In cases such as *La obsolescencia* or *Fortnite*, there was an important editing work, by using original images to which the text was then added. *Bloggers*, on the other hand, used a predesigned image of a meme generator and *Desviados del camino* did not even use digital technology. The considerations around the use of media and new information technologies are varied, so students had to analyze the different positions considering the contextual knowledge on the subject and take a stance from which to create the meme. Once their opinion was clear, the creation of the meme required being able to synthesize it by adapting to the grammar of this type of cultural production. Finally, the decision on the meme's attitude or stance (Shifman, 2014) has an impact on its communicative function. While *La obsolescencia* or *Desviados del camino* have a more serious tone, with a denouncing purpose, *Bloggers* and *Fortnite* opt for a humorous attitude.

We are, then, in the same vein as other authors (Gagliardi, 2020; Pellicer, 2016; Medina, 2018; Bernal Torres & Vega Niño, 2019) who found the work with memes in the classroom to be beneficial, due to the communicative possibilities it allows. These, who did activities with memes in the subjects of language practices or mathematics, recognize the potential of this resource to attract students' attention. Among its advantages, they mention the ability to work with "the knowledge that students already have about them without falling back on categorical applications in teaching practice" (Gagliardi, 2020, p. 31), to help remember rules, to evaluate informally (those who understand the meme's humor understand the content), to motivate students in exam situations (Pellicer, 2016), to strengthen critical reading (Bernal Torres & Vega Niño, 2019), to provide an element of analysis to work linguistic skills, and to bring education and technology closer together (Medina, 2018).

REFERENCES

Arango Pinto, L. G. (2015). Una aproximación al fenómeno de los memes en Internet: claves para su comprensión y su posible integración pedagógica (An approach to the phenomenon of Internet memes: keys for their comprehension and possible pedagogical integration). *Revista CMC, Comunicação mídia e consumo, 12*(33), 110-132. Retrieved from http://revistacmc.espm.br/index.php/revistacmc/article/view/677

Barbero, J. M. (2003). *La educación desde la comunicación* (Education from communication). Bogotá, Colombia: Norma.

Barthes, R. (1971). *Elementos de Semiología* (Elements of Semiology). Madrid, España: Alberto Corazón Editor.

Bernal Torres, Y. T. & Vega Niño, J. A. (2019). Estrategia didáctica mediada por memes para el fortalecimiento de la lectura crítica (Didactics strategy mediated by memes to strengthen critical reading). *Boletín Repide*, 9(10), 62-74. https://doi.org/10.36260/rbr.v9i10.1088

Bourdieu, P. (1979). *La fotografía, un arte intermedio* (Photography: A middle-Brow Art). Mexico City, Mexico: Nueva imagen.

Buckingham, D. (2019). Teaching media in a 'post-truth' age: fake news, media bias and the challenge far media/digital literacy education. *Cultura y Educación, 31*(2), 213-231. https://doi.org/10.1080/11356405.2019.1603814

Cordes, C. & Miller, E. (Eds.). (2002). Fool'sgold: A critical look at computers and childhood. Retrieved from http://www.eric.ed.gov/PDFS/ED445803.pdf

Costa, P. O., Pérez Tornero, J. M. & Tropea, F. (1996). *Tribus urbanas.* Barcelona, España: Paidós.

Dataxis (2020). YouTube (Argentina) Monthly active users. Retrieved from https//dataxis.com/2020/youtube-argentina-monthly-active-users/

Dawkins, R. (1979). *El gen egoísta* (The Selfish Gene). Barcelona, Spain: Labor.

Eco U. (1968). *Apocalípticos e integrados.* Editorial Tusquets.

Gagliardi, L. (2020). Memes en la clase de lengua y literatura: qué, para qué y cómo (Memes in the language and literature class. What for and how). *Convergencias. Revista de Educación, 3*(5), 25-49. Retrieved from http://revistas.uncu.edu.ar/ojs3/index.php/convergencias/article/view/3199

Gee, J. P. (2003). *What video games have to teach us about learning and literacy.* New York, NY: Palgrave Macmillan.

Glasser, B. & Strauss, A. (1967). *The Discovery of Grounded Theory. Strategies for Qualitative Research.* Chicago, IL: Aldine.

González-Carmona, F. L. (2017). Uso De Memes Como Mediadores De Las Vivencias De Estudiantes Universitarios. In Consejo Mexicano de Investigación Educativa (Ed.), *Memoria Electrónica del Congreso Nacional de Investigación Educativa, San Luis de Potosí* (pp.1-11). Mexico City, Mexico: COMIE. Retrieved from http://www.comie.org.mx/congreso/memoriaelectronica/v14/doc/0594.pdf

Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, P. (2010). *Metodología de la investigación (5a ed)* (Investigation methodology, 5th ed). Mexico City, Mexico: McGraw-Hill.

Iglesias, A. (2019). Celulares en las aulas. Los desafíos de los profesores de las escuelas secundarias del siglo XXI (Mobile phones in classrooms. The Challenges of Secondary School Teachers of the 21st Century). In V. Saez (Coord.), *Educación de la Mirada. Experiencias, reflexiones y desafíos pedagógicos de la formación en Medios, Comunicación y Tecnologías en Argentina* (Gaze Education. Experiences, reflections, and pedagogical challenges of training in Media, Communication, and Technologies in Argentina). Buenos Aires, Argentina: UBA.

Kress, G. & Van Leeuwen, T. (1996). *Leyendo imágenes. La gramática del diseño visual* (Reading Images: The Grammar of Visual Design). London, United Kingdom: Routledge.

Lara, M. T. A. & Mendonça, M. C. (2020). O meme em material didático: considerações sobre ensino/aprendizagem de gêneros do discurso (Memes in Teaching Material: Considerations on the Teaching and Learning of Speech Genres). *Bakhtiniana: Revista de Estudos do Discurso, 15*(2), 185-209. https://doi.org/10.1590/2176-457342169

Lanz, L. (2011). El cambio de código español-inglés como creatividad lingüística y presentación de la imagen en tweets escritos por tijuanenses (The change of the Spanish-English code as linguistic creativity and presentation of the image in tweets written by Tijuana residents). In *Memorias de las Primeras Jornadas de Lenguas en Contacto* (Proceedings of the First Conference on Languages in Contact) (pp. 64-73). Tepic, Mexico: UAN.

Lévy, P. (2004). *Inteligencia colectiva: por una antropología del ciberespacio* (Collective Intelligence: Mankind's Emerging World in Cyberspace). Washington, D.C.: Organización Panamericana de la Salud.

Lion, C. & Maggio, M. (2019). Desafíos para la enseñanza universitaria en los escenarios digitales contemporáneos. Aportes desde la investigación (Challenges for university education in contemporary digital scenarios. Contributions from the research). *Cuadernos de Investigación Educativa, 10*(1), 13-25. https://doi.org/10.18861/cied.2019.10.1.2878

Medina, F. (2018). Los memes como discurso analizable en el aula (Memes as analysable discourse in the classroom). *Cuaderno de Pedagogía Universitaria*, *15*(30), 12-21. https://doi.org/10.29197/cpu.v15i30.307

Morduchowicz, R. (2008). Introducción (Introduction) . In R. Morduchowicz (Coord.), *Los jóvenes y las pantallas. Nuevas formas de sociabilidad* (Young people and screens. New forms of sociability) (pp. 9-24). Barcelona, Spain: Gedisa.

Oblinger, D. (2006). *Simulations, Games, and Learning.* Boston, MS: Harvard Press.

Pérez Salazar, G. (2017). El meme en Internet, identidad y usos sociales (The meme on the Internet, identity and social uses). Coahuila, Mexico: Fontamara.

Piñeiro-Otero, T. & Martínez-Rolán, X. (2016). Los memes en el activismo feminista en la red. #Viajo sola como ejemplo de movilización transnacional (Memes in the Internet feminist activism. #ViajoSola as an example of transnational mobilization). *Cuadernos.info*, (39), 17-37. https://doi.org/10.7764/cdi.39.1040

Pellicer, P. B. (2016). Utilizando memes con tus alumnos (Using memes with your students). *Números. Revista de Didáctica de las Matemáticas*, *91*,129-134. Retrieved from https://zaguan.unizar.es/record/57751/files/texto_completo.pdf

Postman, N. (1983). *The disappearance of childhood.* London: W. H. Allen.

Racioppe, B. & Párraga, J. (2020). Memes en Instagram: un estudio de caso de cuentas dedicadas a la producción y circulación de estas narrativas contemporáneas (Memes On Instagram: A Case Study Of Accounts Dedicated To The Production And Circulation Of These Contemporary Narratives). *Perspectivas de la Comunicación*, *13*(1), 47-84. https://doi.org/10.4067/S0718-48672020000100047

Riego, B. (1990). La fotografía como fuente de la Historia Contemporánea: las dificultades de la evidencia (Photography as a source of Contemporary History: the difficulties of the evidence). In *La imatge i la recerca històrica: Ponències i comunicacions : Jornades de debat entorn del valor artístic i documental del patrimoni en imatge* (The image and historical research: Papers and communications: Conference on the artistic and documentary value of heritage in image) (pp. 167-180). Girona, Spain: Ayuntament di Girona.

Rose, F. (2011). *The Art of Immersion: How the Digital Generation is Remaking Hollywood, Madison Avenue, and the Way We Tell Stories*. New York, NY: W. W. Norton & Company.

Ruíz Martínez, J. M. (2018). Una aproximación retórica a los memes de Internet (A rethorical approach to Internet memes). *Signa: Revista de la Asociación Española de Semiótica,* (27), 995-1021. https://doi.org/10.5944/signa.vol27.2018.21856

Saez, V. (2017). El Derecho a ser Joven desde la Prensa Argentina (The Right to be Young in the Argentinian Press). *Educação & Realidade, 42*(4), 1421-1438. https://doi.org/10.1590/2175-623662360

Saez, V. (2019a). La Educación Mediática en la Escuela Secundaria desde los diseños curriculares (The Media Education in Secondary School from the curricular designs). *Entramado, 15*(2), 148-159. https://doi.org/10.18041/1900-3803/entramado.2.5629

Saez, V. (2019b). Los rasgos de la educación mediática en el nivel secundario: un estudio del caso argentino (Characteristics of media literacy education at the secondary level: An Argentinian case study). *Actualidades Pedagógicas*, (74), 1-17. https://doi.org/10.19052/ap.vol1.iss74.5

Shifman, L. (2007). Humor in the Age of Digital Reproduction: Continuity and Change in Internet-Based Comic Texts. *International Journal of Communication, 1*(1), 187-209. Retrieved from https://ijoc.org/index.php/ijoc/article/view/11

Shifman, L. (2014). *Memes in digital culture*. Cambridge, MS: MIT Essential Knowledge Series.

Sirvent M. T. (2003). *El Proceso de Investigación. Investigación y Estadística I* (The Investigation Process. Research and Statistics I). Buenos Aires, Argentina: Oficina de Publicaciones de la Facultad de Filosofía y Letras (Opfyl).

Valles, M. S. (1997). *Técnicas cualitativas de investigación social: reflexión metodológica y práctica profesional* (Qualitative techniques of social research: methodological reflection and professional practice). Madrid, Spain: Síntesis.

Van Dijck, J. (2016). *La cultura de la conectividad. Una historia crítica de las redes sociales* (The Culture of Connectivity: A Critical History of Social Media). Buenos Aires, Argentina: Siglo XXI.

Wainerman, C. & Sautú. R. (2011). *La trastienda de la investigación científica* (The Backroom of Scientific Research). Buenos Aires, Argentina: Manantial.

Winocur, R. (2019). La tribu de los memes. Un territorio virtual de inclusión-exclusión entre los adolescentes (The tribe of memes. A virtual territory of inclusion-exclusion among adolescents). *Comunicación y Sociedad*, 1-22. https://doi.org/10.32870/cys.v2019i0.7327

Wright, M. T. (2017). *Paradox of the learning game*. Philadelphia, PA: Design Meets Mind.

ABOUT THE AUTHORS

DAFNE CARP, Advanced student of Literature with a major in Linguistics from the Universidad de Buenos Aires and Linguistics attaché. UBACyT fellow of the project *Nuevos modos de construcción de conocimiento en la era digital. Un estudio sobre los modos semióticos de los videojuegos Fortnite y Clash Royale* (New modes of knowledge construction in the digital era. A study on the semiotic modes of the video games Fortnite and Clash Royale). Student researcher of the UBACyT project *La construcción de conocimiento sobre los medios de comunicación en la formación docente. Un estudio sobre sus sentidos y prácticas* (The construction of media knowledge in teacher training. A study on its meanings and practices) (Director: Virginia Saez).

iD https://orcid.org/0000-0003-4234-8606

VIRGINIA SAEZ, Ph.D. in Education from the Universidad de Buenos Aires (UBA) and post doctorate in Communication, Media, and Culture. She teaches at the UBA and works as an assistant researcher at the National Council for Scientific and Technological Research, based at UBA's Institute for Research in Educational Sciences. She conducts research, teaching, and universitary extension activities in the study of the relationship between the media and the school.

iD http://orcid.org/0000-0002-3043-4614