

# SOCIAL IMAGINARIES ABOUT THE USE OF TECHNOLOGY AND INTERPERSONAL RELATIONSHIPS IN UNIVERSITY STUDENTS THROUGH FICTION FILMS AS A DIDACTIC RESOURCE

## Imaginarios sociales sobre uso de tecnología y relaciones interpersonales en jóvenes universitarios a través del cine de ficción como recurso didáctico

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### Abstract

From the use of fiction cinema as a teaching resource, an educational experience is exposed with students of the Bachelor of Mathematics Teaching who participated in a film debate cycle focused on science fiction and possible worlds. Multiple have been the approaches that have been given to the cinema within the educational processes, however, to consolidate and systematize this potential, a categorization is proposed based on the didactic objectives starting from the most common uses. Through observing the film *Her*, the social imaginaries of young people are analyzed regarding the use and abuse of technology and how this impacts on interpersonal relationships. The work methodology focuses on what Torres (2015) proposed as a conceptualization of social imaginary and its potential within the processes of educational intervention, complemented by the construction of open question instruments with the proposed by Pérez-Millán (2014) to the analysis of audiovisual products. The results corroborate some aspects regarding the position of young people, regarding virtual spaces of socialization and their impact on face-to face spaces in previous research as Ruelas (2013) or Sosa (2018). Social imaginaries that are detonated from fictional narratives such as cinema can be used to carry out specific educational interventions.

### Keywords

Narrative, social imaginary, communication technology, teaching material, alternative education.

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### Resumen

A partir del uso del cine de ficción como recurso didáctico, se expone una experiencia educativa con estudiantes de la Licenciatura en Enseñanza de las Matemáticas, que participaron en un ciclo de cine-debate centrado en ciencia ficción y mundos posibles. Múltiples han sido los abordajes que se han dado al cine dentro de los procesos educativos, sin embargo, para consolidar y sistematizar este potencial, se propone una categorización en función de los objetivos didácticos partiendo de los usos más comunes. A través de observar la película *Her*, se analizan los imaginarios sociales de los jóvenes respecto al uso y abuso de la tecnología, y cómo esto impacta en las relaciones interpersonales. La metodología de trabajo se centra en lo propuesto por Torres (2015) como conceptualización de imaginario social y su potencial dentro de los procesos de intervención educativa, complementado con la construcción de instrumentos de pregunta abierta propuestos por Pérez-Millán (2014) para el análisis de productos audiovisuales. Los resultados corroboran algunos aspectos respecto a la postura de los jóvenes en cuanto a los espacios virtuales de socialización y su repercusión en los espacios presenciales, en investigaciones previas como las de Ruelas (2013) o Sosa (2018). Los imaginarios sociales que se detonan a partir de las narrativas ficticias como el cine, sirven de base para realizar intervenciones educativas específicas.

### Palabras clave

Narrativa, imaginario social, tecnología de la comunicación, material didáctico, educación alternativa.

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## Introduction

Far are the educational perspectives or positions that placed audiovisual products—mainly television—as the enemy to overcome. Currently, it is impossible to talk about the negative or positive consequences of these products per se, rather it is about, from a critical position to analyzing the reflective and educational potential that television, film or streaming can have.

The following sections describe the position regarding the use of audiovisual media, in particular, cinema, to educate, reflect and learn how certain aspects of reality are perceived, in this case with young undergraduate students, with the objective of knowing their social imaginary regarding the current use of technology, in particular smartphones, virtual spaces, and their consequences.

The first section describes a systematization and basic classification of cinema as a teaching resource, recognizing its main characteristics and the most common uses. The second section deals with the theoretical posture of research, taking as a central element the concept of social imaginary and its link with education from a constructivist learning posture. The third section describes the selection of the film *Her* as a teaching resource to use with students, mentioning and explaining its relevance to detonate the social imaginary of interest. The fourth section describes the profile of the participating group and how it was integrated. The fifth section explains the analysis methodology based on the proposal by

Pérez-Millán (2014). Finally, in the last two sections, some guidelines and reflections on the process are reflected upon.

## Fiction cinema as a teaching resource

For Wood and Gudiño (2017a) there is not a definition of what educational cinema is, or the role of cinema in teaching-learning processes. On the other hand, it is undeniable that everyone, or almost everyone, has met with teachers who at some time in their classes turned to a film to teach, exemplify or emphasize something related to the contents of their class. Based on the above, it may be irrelevant to try to find a universal definition of what educational cinema is, but it can be very useful to consider the educational use or uses that can be given to films, both fictional and documentary. In recent years there has been a need to continue looking for operational didactics for cinema in educational processes, from dissemination to more specific pedagogical processes, something that, fortunately, many professors, disseminators, and researchers are trying to consolidate.

Several authors have given themselves to this task. There are, therefore, multiple uses, approaches, categories, and debates about the intentionality of cinema as a teaching or didactic resource. To a lesser extent, but also for this purpose, systematizations similar to other media product formats have been made in teaching processes such as the comic or, more recently, the streaming series of platforms such as Netflix or Amazon Prime. It is considered that, although there are significant differences between the cinema, streaming or comic formats, for educational purposes and in particular of this contribution, the analysis process presented here can be applied to any of these products, all seen as sequenced narratives where Images predominate.

In another era, it was said that television (or cinema) educated or rather was a bad influence because this argument used to occur in a negative connotation. This perception, often transformed into prejudice, has been diluted, in large part, by considering that audiovisual media is not the element to be overcome by the educational system, but that education for the media is necessary. This also gives rise to the analysis of intentionality in the use of these formats-products in educational processes. This intention can occur in two ways.

The first one includes the products or in this case, the films that are intended as educational form the start, that is, they were made for





that purpose. These films are not exclusively on the documentary genre; however, they are the most representative or, in any case, used because they are considered more objective or different from intentional fiction. Although documentary cinema tries to show particular reality from events captured in an audiovisual manner, in the end, it is presented in an edited, segmented way and with one or several specific and intentional ideological objectives, since the purpose is to convince the audience. The filmmakers send an interpretive message for the recipient or even a tendency for indoctrination. Even so, it is considered a product with greater fidelity to everyday reality than fiction cinema.

The second intentionality refers to films that were not designed to teach or educate, but can be used for this purpose. In this second intentionality is where the audiovisual narratives belonging to genres of fiction are located, to which the film that interests in this case, *Her*, directed by Jonze in 2013 belongs. For this work, the genre of fiction also requires a basic classification that, according to what was proposed by Wood and Gudiño (2017b, 2017c), could identify two central categories.

On the one hand, there is fiction cinema located in an identifiable reality, where biographical films or reinterpretations of historical periods come in, but which are intended to be true to life like *Bohemian Rhapsody* (Singer, 2018), *Lincoln* (Spielberg, 2012) or *The Imitation Game* (Tyldum, 2014). Also within this category, one can place films that, although they do not focus on specific biographies, they do link directly with fully identifiable historical passages and are made in a context that shows some characteristics of a specific historical period, such as *Gladiator* (Scott, 2000), *Inglourious Bastards* (Tarantino, 2009) or *The Labyrinth of the Faun* (Del Toro, 2006). The latter, despite being a classic of the fantasy genre, illustrates very clearly and correctly some elements of the context of the Spanish civil war.

On the other hand, following the fictional narratives, there is fiction cinema that is oblivious to an identifiable reality, mainly the genres of fantasy or science fiction. Although, in effect, they were not thought of as educational products, their potential for reflection or learning is based on what they allegorize, as stated by Mejía and Nahmad (2017). These movies resignify the reality from the creation of other worlds. The observers know that what they are watching is not real, but they focus their attention on the 'realism' of the internal coherence and narrative of the world created by the authors (something very similar to the literature). In the case of fantasy cinema, well-known examples such as *The Chronicles of Narnia: The Lion, the Witch, and the Wardrobe* can be found (Adams,

2005). This —like many stories full of fantastic elements— allegorizes identifiable situations or dilemmas such as the search for power, parental relationships or the harshness of war and its impact on children.

As for science fiction cinema, it is pertinent to make a subdivision to help understand the educational potential that it can provide. In the first instance, some films belong to another genre such as comedy, horror, adventure or drama, but that incorporate identifiable elements of science for the development of their plots. Specific examples are *Inception* (Nolan, 2010), *Terminator* (Cameron, 1984) or *Star Trek* (Abrahams, 2009), although the latter, unintentionally according to its creators, has been one of the most successful in predicting real technological advances since the 60s such as cellphones, interactive screens, magnetic resonance or even some fundamentals of interstellar travel. This set of films, although far from presenting possible scientific or technological elements such as time travel, teleportation or autonomous technology, interestingly are the ones that have been most used for teaching. Why? Most likely, beyond their popularity, it is because, presenting unlikely elements in contrast with scientific facts, become, precisely, an excellent excuse for a counterargument. Why can't anyone jump as Hulk does? Why is it impossible that there is a being the size of *Godzilla*? Why can't there be explosions in space like in *Star Wars*? Why can you travel to the future as stated by Stephen Hawking, but not to the past as in the *Edge of Tomorrow* or *Terminator* movies? These ideas, so widely accepted while they are observed on the screen, but as far away when we discuss them as something possible, are simple to compare with known technology and science, therefore, they require precisely a minimum of notions to be refuted, making an excellent tool for discussion in introductory courses to scientific disciplines or with students of basic levels.

Continuing with science fiction, there is the other extreme, that is, films that, although it is true, have a relevant number of fictional elements, the core part of their plot revolves around phenomena very close to our reality. Movies such as *The Martian* (Scott, 2015), *Gravity* (Cuarón, 2013) or *2001: A Space Odyssey* (Kubrick, 1968) are clear examples of this by realistically addressing issues related to space travel. These films place the viewer, in general, in near recognizable futures and are usually advised, both in the script and in the visual aspect, by renowned scientists, such as Kip Thorne, Nobel Prize in Physics, who participated directly in films such as *Contact* (Zemeckis, 1997) or *Interstellar* (Nolan, 2014), both as clear examples of narrative fidelity in terms of physics, astronomy and relativity. The didactic potential, in this case, is the inverse of the counter-



argument. It focuses on the discussion and reflection on real possibilities of what the viewer observes according to the area of knowledge or content that they want to address. Unlike the counter-argument, its use and teaching potential are recommended for students who already have some mastery of the subject.

Both subdivisions, argumentation, and counter-argumentation from science fiction films have their didactic potential in addressing content related to science and technology of a more disciplinary in nature. In Figure 1 you can review a synthesized diagram of the educational potential of audiovisual narratives from the cinema, depending on their intentionality.

For the case of interests in this contribution, the reflections that the students can derive from observing and discussing the movie *Her* could be placed in the category of those that reflect on a reality very close to our daily life, our present or near future. However, we can refer to a third subdivision for the didactic use of science fiction cinema, regardless of whether the films in question belong to any of the fictional genres already mentioned.

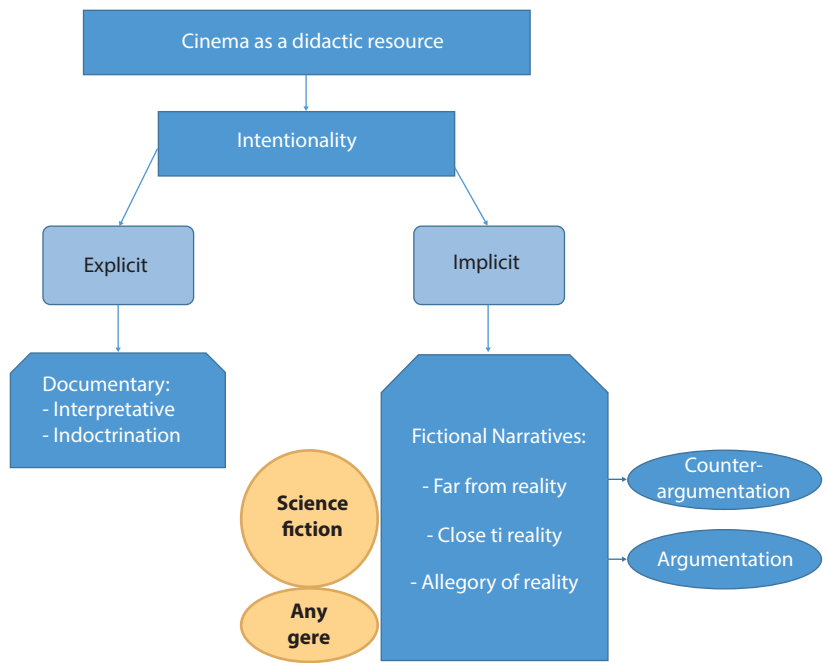
It is here that the concept of 'social imaginaries' becomes relevant, which can be identified by observing and analyzing films as a detonating teaching resource. The imaginaries illustrate postures and behaviors linked to our actions as human beings, hence, most of the aforementioned films can be useful.

What kind of profile do scientists, technologists, and users on those narratives? Who and how do they use technology? With what variations? What is their activity? What are the motivations of the characters? What ethical difficulties and dilemmas do they face? Specifically: What characteristics of our reality are identifiable in fictional characters whose actions are familiar to us, either by identification or rejection? Under what ethical principles and what kind of uses are given to technology in these specific stories?

This contribution analyzes the social imaginary about the use of technology, particularly that of smartphones and their impact on interpersonal relationships exposed by a group of university students belonging to the Bachelor of Mathematics Teaching, from watching the movie *Her*. For this, first, some basic elements on the concept of social imaginary are provided, as well as the categories proposed by Pérez-Millán (2014) for the analysis of audiovisual material.



Figure 1  
The schematization of the didactic potential of cinema



Source: the author

### Social imaginary

Scientific and technological work has been represented in multiple ways in the cinema, television and comic. Many of these representations generate beliefs, stereotypes and, consequently, attitudes in those who consume these products of visual or audiovisual communication. This, in part, influences their position towards scientific vocations and the way they appropriate, reinterpret or reject the construct of scientific or technological work.

There is an explicit intent of those who make a television series, movie or comic, to transmit a message, establish communication with the receiver. Active observers, by consuming the product, are choosing to establish that communication, either by integrating, rebuilding or rejecting the message according to their cognitive scheme, as stated in the constructivist principles of learning. This process is mediated by previous experiences and expectations that the social system has generated. In this

sense, the concept of social imaginary is useful to understand how this process loaded with context, understatements and prejudices are naturalized, as Torres (2015) comments.

The concept of social imaginary, according to Randazzo (2012), has been ambiguous, therefore, its use has been as ambiguous. Sometimes it is understood as ideology, worldview, collective consciousness, perception or mentality, resulting in a problem of lack of rigor, at least at a conceptual and methodological level, generating intuitive interpretations. It is necessary, then, to delimit it and work it systematically.

From the educational scientific field it is pertinent to turn to the teaching-learning perspectives, so the definition proposed by Pintos (2015), who places the social imaginary as socially constructed schemes that can guide our perception, allow our explanation in, and make a possible intervention in what in the different social systems have deemed as reality, is quite useful.

For those who are familiar with pedagogical theories, the notion of schemas and knowledge construction will certainly remind them of constructivist approaches to learning. Without eagerness to enter into debate between the two great lines that derive from learning from constructivism—such as the sociocultural constructivism raised by Lev Vygotsky and Piaget's psychogenetic constructivism—, knowledge-building schemes only acquire meaning insofar as they interact with previous knowledge concerning any concept, they are in permanent reconstruction based on new experiences and learning, sometimes incorporating the new into these previous schemes, and, on other occasions, rejecting it and maintaining or reinforcing the schemes as they are.

Thus, the definition of Pintos is not only useful and pertinent, but it also positions us in a constructivist learning posture, at the same time that it is compatible with the arguments argued by Torres (2015), who says that the social imaginaries are communicative simplifications, which can serve as a detonator, in this case, an audiovisual message that connects with our previous knowledge scheme, either to incorporate the new information, reinterpret or reject it.

The social imaginary has to do with the different visions of the world, constituting itself as a form, in constant change, of expression and indirect mechanism of reproduction. It generates consequences of collective identity and hence the relevance of turning to the products and media representations that they reflect, but at the same time, they build an identifiable reality, either in everyday terms or through allegory.





For example, when watching a movie, one can think about the social imaginary that can be had about technology, its uses, and its consequences. We all have an imaginary about technology and its impact on everyday life whether from experience as users (internally) or how we perceived from other users (externally), as well as the positive or negative impacts that we perceive it to generate.

There are a series of assumptions, behaviors and social norms around the technology that is used every day, specifically to communicate and interact. What happens when technology is exposed, from a specific narrative to a type or types of users who comply with these assumptions and norms? Or, in the opposite direction, what is triggered if it is observed that someone defies these norms or takes them to the extreme? It is not possible, in effect, to show in full, all those assumptions that guide a user's action towards technology, however, it is possible to raise certain situations where the implications of that use can be made visible. One can think of a realistic and dramatic film like *The Social Network* (Fincher, 2010) or with political tones like *Snowden* (Stone, 2016); both narratives warn to some extent of the phenomenon of large scale of communication mediated by technology that is occurring today, but the narratives are distant from the point of view of the users.

In this sense, the fear of the dangers arising from the dependence on technology to interact, represented in products such as the British series *Black Mirror* (2011) of the Netflix platform, has a much greater impact, since common users are those who suffer the technological uses and abuses in narratives that go from comedy to horror, but always with negative consequences for the excesses and dependence on technology in everyday life. This type of phenomenon is not new, of course. For example, in the 1960s, audiovisual narratives abounded that reflected the fear of a possible atomic war in the real framework of the Cold War and the proliferation of nuclear weapons.

In these narratives, as in any case of applied technology, artificial intelligence or virtual communication cannot be classified as good or bad per se, but it is the actions carried out by specific individuals that provokes a response in the viewer. For this position to materialize, there must previously be the 'must be', the explicit and implicit rules and regulations so that the observer can compare how the characters defy to the established norm.

It comes into play, then, when communication is established, in this case between the observer and the film, the socially learned code, which helps us to build our imaginary and our position towards the ac-



tions that someone performs. The self-descriptions we receive on these products are shown with the idea of being a faithful image of a complex system. That is, the overall complexity, in this case of the imaginary of the use of technology and its impact on socialization, cannot be described, but the narratives from these simplifications or descriptions that are presented can. What social imaginary about the uses and abuses of technology and its impact on our way of socializing are identified from a fictional narrative? How are these representations incorporated into the previous schemes, or are they rejected as the case may be?

### The movie *Her* as a teaching resource

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Directed by Spike Jonze and starring Joaquin Phoenix in the role of Theodore (who received very positive reviews), *Her* premiered in 2013. Considered a film more oriented towards awards and critics than success at the box office, addresses the unusual relationship between a common man and his operating system, a kind of highly advanced system based on Siri, a real design of the Apple company, which in the film is given voice by the actress Scarlett Johansson.

Unlike movies like *A.I.* (Spielberg, 2001) or the most recent, *I Am Mother* (Sputore, 2019), where the affective relationship between humans and robots is still present in a distant or unreal future, possibly the most disturbing thing in *Her* is that it precisely presents a very familiar setting. Without providing an exact date, the narrative places us in the very near future, with conditions almost equal to those present.

The very operating system, far from a futuristic design, is relatable to us, it has no physical presence, it is limited to a voice with which to interact through a device that we currently own, our smartphone. The great achievement of the narrative is, without a doubt, how natural and plausible the progressive sentimental relationship of man with his device can be, while he increasingly isolates himself from human beings. It is not the purpose of this contribution to make a film review or criticism, however, a very brief description of the characters is important so that the analysis with the students can be better understood (it is recommended, of course, to watch the film).

Rooney Mara, as Catherine, the ex-wife of Theodore, still has a certain affection for him, but at no time shows regret of being separated, she is the only one who reacts negatively to Theodore's sentimental relationship with his operating system. Amy Adams, as Amy, playing the best

friend of Theodore, also newly divorced, is the one that shows more empathy with towards him, is understood in several sequences that she could feel more than empathy for Theodore, she never judges him negatively, however, he only sees her as a friend. Chris Pratt and Laura Kai Chen, play Paul and Tatiana, a couple who are work friends of Theodore, although they are supportive and respect his new lifestyle —they even see it as normal to attend a double date with Theodore and his operating system without judging— they don't get too involved in investigating Theodore's feelings, so they can somehow be considered a kind of superficial friendship. Besides, there is a brief, but an illustrative cameo by Olivia Wilde (the name of the character is not mentioned), being a woman who goes to a blind date with the protagonist, with negative results for both.

As stated, it was important to make this description since part of the exercise carried out with the students was to identify or reject the behaviors that these characters present in the narrative. As a science fiction product, after all, it is not about technology, but about analyzing ourselves, humans, in our present, on how we glimpse the future, how we interact and our ability to deal with it.



## Participating group

The 12 students participating in this project are studying a Bachelor's Degree in Mathematics Teaching, between the fourth and sixth semesters, at the Faculty of Education Sciences of the University of Colima. Although this analysis focuses on the imaginary of the use of technology and its impact on socialization, it is important to mention that they attended during a whole cycle dedicated to the science fiction cinema called Possible Worlds, focused on films with utopian and dystopian narratives, both current and from several decades ago.

This cycle was organized in conjunction with the House of the Historical Archive of the Municipality of Colima, where the ten projections were made during the period January-July 2019. Although the students are the ones who carried out the formal follow-up process, that is, to answer the written instruments, the projection of the films was open, so they had the opportunity to listen to opinions outside the group and interact with another type of audience. Participation was by open invitation and desire to attend.

## Methodology and instruments

The methodological challenge to have an approach to the social imaginary of the students from watching the movie requires, in the first instance the selection of an audiovisual trigger, to subsequently make the inquiry from the (simplified) narrative of the film, which, as already mentioned, it does not present the problem in all its dimensions and complexity, but it can describe its impacts or consequences on the protagonists, which can in turn cause self-descriptions in the viewer, making possible the explanations and postures of the socially learned, previous experiences or knowledge.

To explore the above, some of the categories proposed by Pérez-Millán (2014) for the analysis of audiovisual material were grouped, omitting the technical categories, resulting in two axes of analysis:

- *Reading of meaning.* Referred to the internal rules of the fictional universe and the internal coherence of the narrative. It includes the set of implicit values that the audience accepts as true for the narrative.
- *Motivations of the characters.* Referred to what each character looks for individually and, where appropriate, at the collective level. Their respect or disdain for the internal rules or values mentioned in the previous point, in addition to the way they interact with the rest of the characters. Here you can also see the personal identification of the students with some of the characters, including the recognition of experiences or circumstances, although not necessarily with their reactions within the story.

The design was framed, as already mentioned, in an exercise within a broader cycle of debates that covered ten film sessions with their respective discussion, which consisted of three stages:

- The first of the stages was the application of a questionnaire with four open questions prior to the screening of *Her*, a film that no one had seen. These questions do not address the film but rather the students' point of view as to how important the relationship with technology is, especially their cellphones and social networks and how this affects their daily lives, both positively and negatively. The questions focused on the time dedicated to virtual spaces, the type of activities they perform in these and how they relate to other people, both virtual and



face-to-face, as well as asking if they have a preference for any of these two types of interaction.

- The second stage consisted of the projection of the film with an open debate about their opinions and their perception of the proximity or distance of what was seen in the narrative regarding everyday life. Although a post-film debate was opened, it was free and, as already mentioned, anyone attending the screening could participate. There was no driving axis as such, but general ideas about what they found most relevant were rescued. The students, in this case, linked it to the initial questionnaire.
- The third stage was the application of a two-block instrument. The first block, again, with four open questions, this time focused on the film with the main objective being to rescue their opinion regarding identifying specific situations of the narrative in their current or recent experiences, either as protagonists or as observers. The second block consisted of showing the seven photographs of the protagonists, both the main and the secondary ones, already described in a previous section, with the instruction that they mention which one they identified more with and which one they identified less, in both cases providing arguments.



## Guidelines, reflections, and teaching potential

Although part of the questionnaire and the final block of identification with the characters can open a pattern for a more quantitative systematization, the richness of the analysis based on the purpose of identifying the social imaginary focuses on the qualitative data derived from the open questions and the reasons for identifying the last block, where the specificities arise.

In this sense and using the two axes derived from the proposal of Pérez-Millán, the reading of meaning and the motivations of the characters were mostly referenced (10 of the 12 cases) to personal experiences and postures, something very noticeable in their arguments, because these 10 students tried to put themselves in the place of the characters, or in their case, exposing hypothetical reactions, 'what they would have done in the place of...'. For the other two, it occurred in a more subtle way, issuing judgments or assessments in the third person.

It should be noted that, although the film presents the ultimate stage of virtual relationships, that is, the human operating-system rela-

tionship from the affective, only two students considered this possible. Approximately half of the participants think that this type of relationship is not and will not be possible, the other half suggests that perhaps in the distant future but under circumstances that still sound impossible, such as the ability to express affection on the part of a machine. This is important, since, in this narrative, as in many others that deal with artificial intelligence and human emotions, there is no possibility that machines feel affection, but that they can imitate it, a principle proposed by Asimov several decades ago.

At this point it is relevant to mention that, although the film does show that the ability of the Samantha operating system is to imitate human dialogue, participants consider it impossible to relate to a machine, considering, in any case, a remote possibility that machines gain this ability to feel or express affection. Only one of the participants mention that one of his little brothers was emotionally affected by his videogame console, however, this contribution was lost as humor.

Regarding the addiction to a device or the virtual interaction vs face-to-face interaction, the 12 participants did consider that it is a current problem in which they are involved and live it daily, although they do not perceive serious consequences at the moment, attributing control or individual willpower as the main factor so that the problem does not 'exceeds them'.

It is also striking that 9 of the 12 participants are convinced that in some way it is 'easier' to interact virtually than in person and that this interaction can be permanent, although they also affirm that they value (even) more face-to-face interactions, where they mainly categorize family relationships. Some, mainly those who are married, said that virtual interactions have caused problems in their relationships, feeling, in some cases, ignored because of excessive use of devices by their partners.

Their perception coincides to a certain extent in the approaches of Ruelas (2013), who points out that mobile devices are being used as instruments of privatization of public spaces and in turn, private spaces are being lost due to the large amount of interference caused by these devices.

He states that these two spaces are not the only ones that blur their boundaries. On the one hand, there is the transformation of people's behavior concerning spaces, specifically between work and entertainment and on the other, the loss of identity due to the entry of technology, especially the cellphone.

In that sense, they were able to identify these behavioral transformations and the loss of identity in the virtual space. The totality of



the students identified with the ‘ignored characters (Amy and Catherine mainly), in no case with the ‘technology addicts’ who ignore others. As an additional comment, no one, in any case, identified with the protagonist. With the consideration that in the first instrument everyone spoke, to some extent, about the waste of time that the devices generate as something negative in their daily lives, that is, the problem was identified, it is experienced every day and it suffered, but they do not assume themselves as generators of it.

More than half of the students responded that one of the disadvantages of virtual communication was not knowing the voice tones and expressions of the people with whom they are interacting, precisely the selling point of the Samantha operating system in the plot, its capacity of imitating expressions and tones of voice.

The disadvantages and advantages that young students identify coincide, to a certain extent, with those raised by Sosa (2019). The responses collected show that the time invested in virtual space or with devices is mainly for entertainment, not for work, academic or family relationships. At any time, however brief it may be, ‘one can escape’ and get distracted. In this sense, there are certain contradictions in their responses. For example, they see the possibility of communicating with close relatives as an advantage, while claiming that with the use of this technology there is less and less family interaction.

In addition to considering wasted time as a disadvantage, in almost all cases, a significant part spoke of being vulnerable to attacks by third parties, a kind of cyberbullying, however, they never talked about putting themselves in a state of vulnerability, but by actions someone else. They did not identify consequences beyond these two negative factors: time and external vulnerability. No student, as in the case of identifying with the characters with addiction problems, assumed himself as someone who infringes on others.

## Conclusions

The use of cinema in particular and audiovisual media in general as a teaching resource, today more than ever is feasible due to the massification and proliferation of streaming, which is accessed both for free and in paid formats. The use of these products, which long ago could be perceived as a distractor or a natural enemy of formal education, can now be



conceived as an element that also educates, of course, from a critical and systematic perspective, having specific purposes.

In this case, the methodological design based on the proposal of Pérez-Millán for the analysis of audiovisual content and the use of social imaginary in a constructivist perspective of learning has allowed, as we could see, to approximate how a group of young people perceive their reality, in this case, concerning the use and abuse of technology.

Although the students did not deepen their discussions with the central implications of artificial intelligence, the film *Her* as a trigger was a productive link to know their social imaginary regarding what they observed. It is clear what they identify as negative in the abuse of the devices, what they suffer, but also what they deny or at least assume that it does not apply to them. Undoubtedly, in addition to knowing these imaginaries, this gives us guidelines to more deeply address them from school.

In this intervention, it has been shown that it is possible to approach the perception of specific groups regarding how they interpret certain realities, as posed by various authors who address the social imaginary, in this case: undergraduate students familiar with the use of technology. This gives us guidelines not only to know their perception of reality but to reflect on how they can intervene in it, a fundamental task for those who are immersed in the educational field.

Although a single narrative was used in this intervention, the proposal can be extrapolated. Audiovisual narratives educate, guide and induce us, usually unconsciously and outside the school space, to build the social imaginary that we are gradually naturalizing and projecting. In other words, they not only reflect our reality, but they build it, hence the enormous relevance in the educational and scientific level of entering their analysis to make transformations.

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1984 *Terminator* [Película]. EUA: Pacific Western; Hemdale Film Corporation.
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2013 *Gravity* [Película]. EUA: Warner Bros.; Esperanto Filmoj; Heyday Films.





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 2013 *Her* [Película]. EUA: Warner Bros.
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 1968 *2001: A Space Odyssey* [Película]. RU-EUA: MGM; Stanley Kubrick Production.
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 2018 *Bohemian Rhapsody* [Película]. RU-EUA: GK Films.
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 2012 *Lincoln* [Película]. EUA: 20th Century Fox; DreamWorks SKG; Amblin Entertainment.
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 2019 *I Am Mother* [Película]. Australia: Penguin Empire; Rhea Films; Southern Light Alliance; Southern Light Films.



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