

Audiovisual Communication and critical thinking: Challenges for university education

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Abstract

This work raises the challenge and the need to train Audiovisual Communication students in what we term critical thinking. This way of thinking, which is logical, reflexive and grounded, is a central pillar of audiovisual communication and university training, as it allows evidence, arguments and opinions to be analysed and evaluated in a reasoned way. It is a key skill for citizens in the digital age, where misinformation and manipulation are frequent and decidedly dangerous phenomena. Media and information literacy is an effective strategy for developing critical thinking in the audiovisual field. It is also necessary to face new educational challenges related to the inappropriate use of mobile phones, the internet or video games; the consolidation of gender stereotypes through social networks; the social isolation caused by abusive use of the mobile phone, and the ethical and credibility problems generated by the rapid advances in generative artificial intelligence.

Keywords

Critical thinking, university education, audiovisual communication, media and information literacy, misinformation.

Resum

Aquest treball planteja el repte i la necessitat de formar els estudiants de Comunicació Audiovisual en l'anomenat pensament crític. Aquesta manera de pensar, lògica, reflexiva i argumentada, és un eix central de la comunicació audiovisual i de la formació universitària, ja que permet analitzar i valorar de manera raonada les evidències, els arguments i les opinions. És una competència clau per a la ciutadania en l'era digital, on la desinformació i la manipulació són fenòmens freqüents i perillosos. L'alfabetització mediàtica i informacional és una estratègia eficaç per desenvolupar el pensament crític en l'àmbit audiovisual. També cal afrontar nous reptes formatius relacionats amb l'ús inadequat dels mòbils, d'Internet o dels videojocs; la consolidació dels estereotips de gènere a través de les xarxes socials; l'aïllament social causat per l'abús del mòbil, i els problemes ètics i de credibilitat que generen els ràpids avenços en intel·ligència artificial generativa.

Paraules clau

Pensament crític, formació universitària, comunicació audiovisual, alfabetització mediàtica i informacional, desinformació.

Introduction

In the Spanish context, Audiovisual Communication is an academic discipline that can be studied at 27 university centres (El País, 2023). This broad offering responds to the high demand for these studies, which connect, now more than ever, with the interests and identities of young people. Indeed, the daily life of young people is marked by the presence of the audiovisual field in numerous formats and platforms: social networks, television series, streaming, video games etc. The cinema, which used to be the predominant cultural reference

for this group, now gives way to a wider and more diverse range of options.

Today's young people are not satisfied with the mere role of passive consumers of products made by others, but aspire to be active agents of communicative dynamics. Many dream of becoming YouTubers, streamers, TikTokers or influencers, i.e. content creators for digital platforms. In this context, the audiovisual field has experienced such a major expansion, transformation and penetration in our lives that the decision to study Audiovisual Communication is today a natural and desired choice among young people, despite the difficulties of

job insertion that affects the sector (AQU Catalunya, 2022).

This work defends the university as the most suitable space for the education of a citizen with a critical spirit, a space capable of understanding that at the centre of learning there must always remain solid the basic and fundamental questions that affect individual and collective well-being. While these issues can be expressed today in terms of Sustainable Development Goals, the acquisition of knowledge, skills, and competences in the service of well-being has always been a part of higher education. We believe that the university needs to promote a humanist education, which transcends the needs of the market or consumption patterns, even in highly technical fields, as is the case with Audiovisual Communication.

In this context, it is essential that Audiovisual Communication students are aware of the phenomenon of *information disorder*, which refers to the proliferation of false, misleading or manipulated content that circulates on digital platforms and that makes it difficult to verify and trust sources of information (European Commission, 2018). Information disorder can generate a cycle of media manipulation, which, according to Donovan (2020), consists of a series of stages ranging from the creation of a false or distorted narrative to mass dissemination and influence on public opinion of this narrative. This cycle can have negative consequences for democracy, coexistence and human rights; given that it can promote hatred, racism, sexism, bigotry. or denialism. Therefore, future audiovisual professionals must develop critical thinking that allows them to detect, analyse and combat these dishonest and irresponsible practices.

Our society is suffering from a crisis of values that manifests itself in the communicative practices that are developed through digital technologies, among others. These technologies expose citizens and institutions to urgent challenges, such as disinformation, which threatens democracy; mental illnesses caused by misuse of mobile phones, the internet, social media or video games; gender stereotypes, which are reinforced in young people through social networks; social isolation (“phubbing”) caused by mobile phone overuse, or the ethical and credibility problems generated by artificial intelligence. For this reason, Audiovisual Communication studies cannot be limited to teaching the techniques specific to audiovisual language. They need to go much further: as students and teachers, we must analyse and reflect on these challenges, in order to respond together to the imperative need to have a citizenry with a critical spirit.

This article aims to present a reflection, based on secondary research, on the challenges posed by the phenomena of misinformation, digital addictions, and ethical and reliability conflicts arising from artificial intelligence for Audiovisual Communication courses. In addition, the article wants to highlight the importance of promoting critical thinking as a key competence for future audiovisual professionals, who must be able to analyse, evaluate and create quality content in a complex and changing digital environment.

Rethinking University Education

Llovet (2011: 28) quoted a rather eloquent statement by the philosopher and mathematician Bertrand Russell, recipient of the Nobel Prize for Literature in 1950:

“One of the defects of modern higher education is that it has become a pure training for the acquisition of certain skills and is less and less concerned with broadening the minds and hearts of students through the unbiased examination of the world.”

Then, Llovet himself (2011: 131–132) denounced the fact that universities had sold out to market interests:

“The destiny of the university, in this sense, and this applies to all the faculties, is to become once again a disjointed sum of professional guilds, higher schools for the acquisition of ‘skills’, with the only aim, then, being to prepare students to master a specific and very narrow technique, in line with the specialisation required by the organisation of work in today’s societies. Regarding placement within the main social or political issues, or linkage with the *polis*, despite the fact that this is one of the purposes of the Bologna Plan, none of it will be achieved.”

Russell and Llovet agree in pointing out that higher education has surrendered to the needs, or rather imperatives, of the market and has left aside the university’s own obligation to train citizens with critical thinking. This complaint might seem alien to Audiovisual Communication studies, which are, as we said, highly technical. We, however, think that this criticism also implicates us.

Communication studies are inter and transdisciplinary, and from their origins relate to wide-ranging topics, specific to sociology, psychology, political science or education. Thus, research in communication analyses how the media influence our understanding of the world, culture, society, and our identity; how they interact with political and economic power in the service of a hegemonic ideology and culture; how they affect mental health, or how they shape public opinion. For this reason, these studies encourage epistemological, scientific, political, social, and cultural reflection on the “main social and political issues” involving the media and audiovisual works.

The university has the social function of training citizens who, in addition to acquiring knowledge, develop social, moral, ethical, and social commitment competencies and skills. In fact, universities today are aware of the value of social skills and are looking for ways to recognise them in university education (Arroyo, 2019). In addition to training professionals who leave sufficiently prepared for the world of work, the university also trains individuals with skills and abilities that help them develop values and virtues (Franganillo *et al.*, 2021). This is an inseparable dimension of critical competence.

European universities have taken on the United Nations’ 2030 Agenda and made the Sustainable Development Goals

a fundamental part of their mission as higher education institutions. They have drawn up action plans to integrate them into their training, research, innovation, and governance policies and activities (European University Association, 2020). For this commitment to be effective and viable, however, training must aim to create a citizenry that is aware and committed to the challenges facing society, such as health and well-being (Goal 3) or peace (Goal 16). In this regard, it is vital that future audiovisual communicators understand how the media influence the power structures that cause social and economic inequalities, and how they can promote peace with their communicative practices.

In addition, AQU Catalunya's recent report (2022) on employability in Communication reveals that graduates in Audiovisual Communication must improve, above all, their skills in data analysis, ICT, creativity, and written expression. In particular, 52% of employing entities consider that graduates must improve their skills regarding reading and analysis of texts, data, statistics, and specialised documents on any relevant subject. They also believe that graduates should be able to conceive, plan, design, and execute communicative projects. The report, therefore, emphasises the need to train in investigative, analytical, and reading skills, that is to say, in skills that are not purely technical. Other studies (Armendáriz, 2015; López, 2018) agree on the observation that the media and audiovisual companies are requiring graduates with a proactive attitude and critical ability.

Critical Thinking

Critical thinking is the ability to reason logically, reflectively, and with arguments about a topic. It is about formulating opinions, beliefs, hypotheses, and explanations of reality in such a way that they can be justified with a process of empirical contrast based on inductive reasoning. This process means that when a belief is contrasted with the evidence, favourable evidence corroborates it, while unfavourable evidence calls it into question. Thus, critical thinking requires us to rectify and change our minds if we cannot objectively and convincingly defend the belief in question. Empirical science is a good example of this kind of thinking. Scientific explanations, no matter how widely accepted they may be, must be revised if new empirical evidence contradicts them or even calls them into question. For this reason, scientific thinking is critical and not dogmatic, and is subject to scrutiny (Sánchez, 2020; Sánchez and Villanueva, 2023). This does not mean that it is an infallible cognitive ability, but it does mean that it is reliable. This reliability is socially guaranteed through the scientific community, which uses rules and control mechanisms to minimise error.

In democratic societies, the media are conceived as facilitators of quality information, necessary to establishing justified opinions on issues of social relevance. The health of democracies, and the exercise of rights and duties, depends

on citizens being well informed and, on that good information, being able to form justified opinions and participate in debates and discussions that affect social and individual well-being. It is only when the information that shapes public (and private) opinion allows justified opinions to be formed, that rights and duties can be exercised under equal conditions, and, consequently, appropriate behaviours can be generated (Sánchez and Aguilar, 2020).

In this regard, some authors emphasise that modern Western democracies have been built on this epistemological model. Dawkins (2006), for example, maintains that, since the Enlightenment, these societies have been organised under what he calls an enlightened moral zeitgeist, based on a consensus on certain universal principles established through critical thinking and justified arguments with empirical evidence and true information. This enlightened view of democracy fits with an epistemological perspective that understands that knowledge, science, and education have the purpose of forming citizens capable of generating justified opinions, and thus participating in political, ethical, and moral discussions under principles of rationality. The education system in general, and university training in particular, must be at the service of this objective: to train citizens in this critical capacity.

However, critical thinking, which is based on inductive rationality and the search for truth, is in crisis in what some call the "post-truth" era. The *Oxford English Dictionary* defines *post-truth* as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion compared to appeals to emotion and personal beliefs" (Flood, 2016). In this regard, several voices denounce the epistemological deterioration of our democracies. Froehlich (2017) states that we have entered the "age of ignorance" and makes a distinction between false information (*misinformation*), which is merely incorrect or inaccurate, and falsified information (*disinformation*), which is manipulated with the intent to deceive. Goulart *et al.* (2020) speak of collective "imbecilisation"; Desmurget (2020), of digital "cretins"; McKeown (2016), of information poverty; Keyes (2004), of informational dishonesty; and Meneses (2021), of a crisis of truth. Faced with this situation, objectivity, facts, and truth value give way to emotion, intuition, or whatever simply feels credible to us (Cooke, 2018; McDermott, 2019; Strong, 2017; Lilleker and Liefbroer, 2018).

In today's society, the proliferation of misinformation and citizens' mistrust of institutions reveal a crisis of knowledge and critical thinking. This situation, however, is not attributable only to the interests or bad practices of certain agents. The lack of critical thinking also has an origin in our cognitive structure, as cognitive psychology explains. Indeed, Haidt (2001) states that we tend to reason in a biased way, so we can avoid questioning our beliefs and attitudes. Instead of reasoning in order to establish the truth of our opinions, we reason in order to maintain them, even if they are not true. This is a motivated, strategic type of reasoning, used at the service of judgments

that are generated based on emotions and initial intuitions (Haidt, 2001, 2006, 2012; Cook *et al.*, 2017; Strong, 2017; McDermott, 2019).

Disinformation takes advantage of the psychological processes that make us believe what we want to believe, regardless of whether it is true or not. Thus, we give more credence to information that confirms our intuitions, even if the information is wrong, and dismiss arguments and empirical evidence that contradict them (McDermott, 2019). This explains our resistance to changing our own opinions, even when we are presented with irrefutable evidence of our error. An illustrative case of this phenomenon is the false beliefs about the presence of weapons of mass destruction in Iraq in 2003, which persisted despite the media proving their non-existence (Lewandowsky *et al.*, 2012).

Therefore, we need a more complex epistemological and educational model, which works on the relationships between critical thinking, emotions, and intuitions. Our mental architecture is not as rational as had been assumed in the Enlightenment. We are agents driven by emotions, who use reason in their service, as Hume had already argued (1748). This is, we believe, a challenge for university education, which often prioritises knowledge above the emotional dimension. As Russell said in the opening quote, modern higher education must broaden not only the minds but also the hearts of students. Critical thinking is not only based on pure rationality, guided only by the search for truth, but also includes the emotional dimension of human cognition. But this does not mean that we have to fall, as post-truth does, into extreme relativism, which denies the truth value of representations of reality, discredits objectivity, invents alternative facts, or confuses reality and fiction. Recalling once again the aforementioned quote from Russell, it is true that higher education must expand the minds and hearts of students, but through an unbiased analysis of the world.

Media and Information Literacy

With degrees in Audiovisual Communication, the university can contribute to developing critical thinking in the two dimensions that are part of it: the rational and the emotional. Media and information literacy (MIL) is a tool that can help achieve this. This is recognised by UNESCO (2011):

“MIL stands for *media and information literacy*, and refers to the essential competencies (knowledge, skills, and attitude) that allow citizens to engage with content providers effectively and develop critical thinking and life-long learning skills for socializing and becoming active citizens.”

In this work, we understand MIL as a set of attitudes that relate to critical thinking (Brisola and Doyle, 2019; Ha Kim, 2019; Meneses, 2021). Training in MIL is a tool to enhance

critical thinking, according to several studies (Craft *et al.*, 2013; Vraga *et al.*, 2020). This means that teachers need to know how to use various media and information resources and extend them to students, as advocated by UNESCO (2011). Wilson (2012) adds that MIL is not only a technical matter but also a critical approach. The systematic review on MIL and critical thinking by López-González *et al.* (2023) confirms that MIL in education improves critical skills.

The European Union considers MIL a key tool to combat the phenomenon of disinformation, which seriously affects democracies. This is the thesis of Sádaba *et al.* (2023), who argue for the need for co-responsible citizenship and coordinated action between civil society, companies, and governments. According to these authors, the deliberate distribution of false information can erode trust in the media, politics, and institutions, and can foster populism and ideological polarisation. In this regard, in the *Media Literacy Index 2022*, for 35 European countries, the five that occupy the top places in the MIL ranking are Finland, Norway, Denmark, Estonia, and Sweden, in that order (Lessenski, 2022). They are the countries with the most capacity to avoid or mitigate the negative impact of disinformation. This is due to three factors: the quality of education, freedom of the press, and citizens' trust in institutions and the media.

The mistrust of citizens towards the information they receive from the media, especially from social networks, is included in the *Digital News Report* by the Reuters Institute (Newman *et al.*, 2020). At the same time, several reports from the European Commission (2018), UNESCO (2018), and the House of Commons (United Kingdom, 2019) point to digital media as agents of disinformation and call for a critical audience in the face of new technologies and social media. To deal with this reality and promote digital literacy, the European Commission (2022) has drawn up guidelines for teachers and educators to promote the incorporation of MIL in education. These guidelines provide practical guidance, advice, activity plans, and some warnings.

Misinformation is difficult to eradicate once it has taken root in our cognitive structure (Morris *et al.*, 2020). Therefore, preventing disinformation is easier, and will be more effective, than seeking afterwards to eradicate it. One way to do this is preventive inoculation (Cook *et al.*, 2017; van der Linden *et al.*, 2020; Apuke *et al.*, 2022), which consists of alerting everyone to fallacies and rhetorical devices used to misinform them. MIL can help citizens protect themselves from misinformation (Jeong *et al.*, 2012), by equipping them with skills and knowledge to evaluate, validate and question information (Meneses, 2021). For example, the International Federation of Library Associations (IFLA, 2016) proposed eight simple steps to verify misleading news. The process consists of examining the source, identifying the author, verifying the date, imagining one's own bias, going beyond the headline, contrasting it with other sources, wondering if it is a joke, and consulting the experts.

There are journalistic verification resources, such as *Maldita.es*, *Newtral* or *VerificaRTVE*, which give advice on verifying information and avoiding the temptation and trap of believing without questioning. These tips, however, are not enough to develop critical thinking and protect citizens from misinformation. Neither are MIL nor the data verification tools enough in and of themselves. Critical thinking needs mechanisms that encourage it, such as formal and informal education, legislation, ethical codes, media ethics, market regulation, and a university education committed to this challenge, especially from Audiovisual Communication studies. These are multilevel proposals (Sádaba and Salaverría, 2023) that can help us, but that do not eliminate the cognitive tendency to bias or the resistance to recognising the falsity of one's own opinions.

Training Challenges

The education of critical, active, and co-responsible citizens in the face of disinformation phenomena is an essential function of the education system. Universities play a key role in this area. Audiovisual Communication must not only provide training in the technical use of audiovisual language but must also address socially relevant problems and issues. Media research has often addressed issues such as political propaganda, the persuasive power of the media, its influence on public opinion, its effects on audience behaviour, its role within the political and economic system, the spread of stereotypes, the ability of the audience to interpret content, or the homogenisation of mass culture. Today, however, with the emergence of new media and new communicative practices, these phenomena have acquired new dimensions and new problems have arisen that require a rigorous scientific analysis.

Disinformation is one of these new problems. It is far-reaching, and it is related to another aspect that we want to highlight here: algorithms. Social media and video game companies use intricate algorithms to capture users' attention and get them to spend as much screen time as possible. This brings them economic benefits, but at the expense of the health and well-being of users. These algorithms are perverse, as they can reinforce stereotypes and social gaps, just as they can also reduce users' ability to think critically about the content they consume and about the world around them. In addition, they can cause addictions that alter personal, social, and work life: they can cause isolation, anxiety, depression, violence, and other mental health problems (Rodríguez, 2022). For all this, it is necessary to educate people in the responsible and conscious use of these new technologies.

Some companies become part of the problem, because they exert an influence on education, not only by offering dubious classroom resources, but also by shaping education policy. According to Sánchez-Caballero (2023), these companies have economic and ideological interests that conflict with the principles of public and democratic education. There are energy,

technology, and banking companies that have made themselves a place in the education field without having demonstrated that their proposals actually improve any aspect of the educative process. They offer training for teachers, teaching units, and awards that only reflect the sector's own vision. And what is even more worrying: they have the support or even the complicity of public administrations. These companies present themselves as unquestionable educational agents, without explaining what problems they are seeking to solve. Therefore, letting them decide what is taught in schools, and how it is taught, is fraught with risk. It may not seem so, but this trend is what is hidden behind what is presented as public-private collaboration, which is growing stronger all the time.

Another major current challenge is that of addictions and other mental illnesses resulting from abusive or inappropriate use of social networks and mobile devices, as well as the type of information and content that is disseminated there. Online video game addiction has been classified as a behavioural disorder by both the American Psychiatry Association, which included it in its *DSM-5-TR* manual in 2013, and the World Health Organisation, which included it in its international list of diseases in 2019. Studies show that internet addiction is a cause of loneliness and socially isolating behaviours (*phubbing*), that addiction generates distress and psychological deterioration (Shaw and Black, 2008; Scimeca *et al.*, 2017), sleep disturbances (Kim *et al.*, 2017), and poor academic performance (Fatehi *et al.*, 2016). In general, experts report that excessive use of screens from an early age also leads to physical impairments, such as obesity, and consequently cardiovascular disease, and emotional problems, such as depression and aggression. They also warn of harmful effects on cognitive development, such as lack of concentration and memory.

Artificial intelligence (AI) has entered this scenario with force, which already permeates all sectors of the economy and society. In the audiovisual and cultural sphere, it affects the entire value chain: creation, production, distribution, and relationship with the public. One of the most relevant techniques is generative AI, which allows content to be generated automatically. With this technology, which is already available to everyone, texts, images, sounds, and videos can be produced quickly and realistically, and without the need for technical knowledge.

Its potential is enormous, and precisely for that reason it also carries great risks: generative models are exposed to potentially malicious uses, which can turn this technology into a threat. These tools make it possible to easily produce fake news, manipulated images that look like graphic evidence, and deepfake videos that impersonate public figures, all to spread misinformation, propaganda, or slander (Franganillo, 2023). Such artificial content is so convincing that it can mislead receivers and hinder their ability to check sources, properly reflect on messages, and form their own critical opinion.

Another major challenge is the proliferation of automatic content, which is occurring due to the popularisation of

language models, which simulate the manner, and even the style, of how we write as humans. This technology allows texts to be generated quickly and realistically but also has its drawbacks. Texts produced by a model, without supervision or further elaboration, will always have one deficiency: the human dimension. They will lack the context, narrative, and commentary that only a person, particularly an expert in the field, can provide. In addition, there is the danger that the internet will be filled with automatic texts that could degrade the level of the content and, consequently, impoverish the informational diet of the reading public. In fact, this is a real threat: there are already hundreds of artificial content farms publishing articles en masse, often with false narratives and misinformation (Newsguard, 2023). This new source of disinformation is another front that can exacerbate the epistemic crisis affecting our societies.

It seems clear enough, then, that it is necessary to combat the phenomena of misinformation, the malevolent purposes of algorithms, which induce addictions and mental illnesses, and the new forms of deception that generative AI fosters. It is an essential step in training active, engaged and critical citizens, which are necessary for building a healthy democracy.

Strategies to Encourage Critical Thinking

Audiovisual Communication studies must encourage critical thinking through inoculation strategies and must also involve students in reflective experiences about the media (McDougall, 2019). To achieve this goal, the curriculum must include subjects that allow them to understand the epistemological, social, political, cultural, economic, and ethical dimensions of media content, and that make them aware of the possible consequences of misuse in their consumption. They must be subjects focused on analysing and reflecting on issues such as those mentioned above, that is to say, they must not only provide students with technical knowledge and skills but also help them shape a certain perspective on social reality. Critical thinking requires the development of analytical and argumentative skills that can support hypotheses and explanations of communicative phenomena, instead of resorting to discourses based on post-truth or relativism.

In this regard, we find that it is necessary to encourage the reading and writing of relevant scientific works; this is a high-priority task. Although it may seem difficult to motivate students to learn with methodologies that require time, reflection, and persistence, we believe that reading and writing are essential for critical thinking. Through reading and writing you can develop your own ideas, based on the knowledge accumulated by the scientific community. These methodologies, partly neglected by the current educational system, are inherent in critical thinking. It does not help when the flow of thought is automatically generated by a language model; it must be generated by the students themselves.

Another activity that needs to be promoted is research. This is an essential activity that Audiovisual Communication courses must highlight and encourage. It is necessary to promote educational mechanisms that stimulate students so that they get into the habit of researching and reading up on subjects so they can properly nurture and develop their projects. The research must include the viewing of relevant audiovisual productions and must naturally lead them to improve the quality, diversity, and rigour of what they do. It is well known that the research work contributes to generating more complete and plural audiovisual products, and at the same time has a verifying function that, by checking data, facts, locations, and other elements, increases rigour and promotes the credibility of what it aims to convey.

As an example, one of the challenges posed by this proposal is the verification of content generated by internet users. Unlike traditional media, which generally have protocols and criteria regarding their quality and rigour, users are able to publish any content on the internet without any filters. This can lead to false, decontextualised, manipulated, or biased information that can influence public opinion. Therefore, audiovisual communicators need the tools and skills to verify and cross-check user-generated content before broadcasting or using it as a source.

At the same time, we want to emphasise the relevance of the emotional dimension. As we have argued before, this dimension is inseparable from human cognition and leads us to understand critical thinking in a broad sense, not just a rational one. For this reason, we believe that the students' audiovisual projects should have a social commitment. Service learning (SL) projects are an ideal formula for working on this dimension based on the students' character strengths and the principles of positive psychology (Sánchez *et al.*, 2021). The SL methodology promotes critical thinking from the social needs of the environment and entails, on the part of the students, a civic, ethical, and social commitment, while developing technical and instrumental skills (Franganillo *et al.*, 2021).

It is also necessary to mention the persuasive and explanatory power of audiovisual work. Encouraging students to create works that deal with issues relevant to society, such as gender stereotypes, historical memory, or gambling addictions, for example, is an excellent way to foster critical thinking in the two dimensions that make it up.

Conclusions

It is not superfluous to insist once more, in line with Russell, that higher education must broaden the minds and hearts of students through the unbiased examination of the world. This is the ideal that we have championed in this paper for Audiovisual Communication studies, which aim to educate critically sophisticated citizens. *To communicate*, which in Latin (*communicare*) means 'put together' and 'create community',

is to transmit information, content and message. But it is also about establishing social bonds and creating a shared culture (Carey, 1989; Craig, 1999).

University training must take up this ideal expressed by Russell, and Audiovisual Communication studies, due to their idiosyncrasy, must aim to prepare critically sophisticated citizens. For this reason, we think that Audiovisual Communication students should involve themselves in major social or political issues, precisely because, as Llovet said, they are the professionals and citizens that society needs today. They must be aware of the communication challenges they have to face and their consequences for health, coexistence, and peace. And they must develop critical thinking, which includes both emotions and intelligence, through the reading and elaboration of relevant scientific works, and the viewing and creation of audiovisual productions with social impact.

Some media work with algorithms that cause addictions and other health problems in people. They also polarise public opinion in such a way that can make coexistence difficult. Spreading falsehoods, such as claiming that Iraq had weapons of mass destruction, led to the deaths of thousands of innocent people. And it is equally unacceptable, because it is irresponsible, for a president of the United States to tweet on Twitter that Covid-19 can be cured with an injection of bleach. Audiovisual Communication students must be involved in these issues and the university must train them so that they can face them, and then come out of it with flying colours.

Teachers in the field of communication (and other social and human disciplines) have various tools at their disposal to train critical citizens, one of which is MIL, which helps us face the challenges of new communication technologies. These tools alone, however, will not be enough if they are not combined with broad and involved training. University education must not be subject to the interests or imperatives of the market, or to political interests, which often contradict the ideal of empowering citizens and hinder the objective of critical thinking that we have set out. A negative effect could lead the university, science, and knowledge to a dead-end post-truth scenario. A change of approach is needed that positions higher education as a public good and a human right, and that guarantees a critical and civic education in the face of the challenges that the digital society presents us with in the present day.

In these pages, we wanted to reflect on the challenges posed by the digital society for training in Audiovisual Communication and on the need to promote critical thinking as a transversal and fundamental competence. To delve deeper into this reflection, we propose some future lines of research that allow the evaluation of the impact of critical thinking on the training and practice of audiovisual communication professionals, such as: carrying out longitudinal studies that follow the evolution of students; designing and implementing service learning experiences that link content and skills to the needs and demands of society; comparing the academic outcomes and attitudes of students who receive training based on critical thinking with those who

receive other kinds of training, and exploring the possibilities of artificial intelligence as a tool to enhance critical thinking. We hope that this article has contributed to highlighting the importance of this competence for the education of critical, conscientious, and participatory citizens.

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