



INFLUENCERS AND ECO-ACTIVISTS: PERCEPTIONS AND FEELINGS A Neuromarketing Analysis

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KEYWORDS

Influencers
Activists
Commitment
Neuromarketing
Eye Tracking
Social Media
Instagram

ABSTRACT

Within the domain of social media, individuals who publicly advocate for social, environmental, or political causes are designated as 'activist influencers'. The present article adopts this emerging figure as a point of reference for the purpose of analysing the messages conveyed on Instagram and the impact these have on their audience. The utilisation of a questionnaire in conjunction with neuromarketing techniques, namely eye tracking, has enabled the successful execution of the following: 1) The results of the implicit responses (attention, visual routes and emotion) produced by the messages of 'activist influencers' in the environmental field are to be extracted; and 2) the explicit responses (association, consistency and credibility) to the causes defended are to be identified.

Received: 03/ 03 / 2025

Accepted: 12/ 05 / 2025

1. Introduction

Political science, communication and sociology have all addressed the role that citizens can play in public life and the effects that this role can have on the development of democracy (Carpini et al., 2004; Etzioni, 1996; Galston, 2001). In the aftermath of these studies, the concept of the 'good citizen' has been redefined, and over the course of a few decades, the role has evolved from being regarded as a passive entity to one that is actively engaged in public life. In this sense, the "good citizen" described by Dunne (2008) is a patriot who must "lay down his life for the security and freedom of the state" (p. 17). The author asserts that these individuals, who are characterised as 'patriots', "take their duties seriously", and are cognisant of the necessity to 'participate in the public sphere' (p. 17).

Concurrently, this "good citizen" has also been observed as an active and engaged individual with acknowledged rights and responsibilities (Marlowe Jr. and Arrington-Marlowe, 2005). Among the rights that have been secured is the right to information, which has been demonstrated to enhance awareness of the environment and prepare individuals to deal with it. His responsibilities include the ability to monitor critical events and the obligation to respond to events related to his government (Marlowe Jr. and Arrington-Marlowe, 2005). In this regard, the concept of the "good citizen" can be defined as an individual who is informed, who scrutinises, and who participates in public life, being aware of the relevance of his or her involvement to society. Consequently, the concept of the "good citizen" is inextricably linked to that of the committed citizen.

However, it is important to consider the contemporary methods and spaces through which citizens are able to express their engagement with society. It has been posited by certain authors that the advent of the internet, in conjunction with the technological changes associated with its development, as well as the emergence of new forms of social communication, has precipitated a shift from traditional to digital participation (Ugarte, 2018; Zeler et al., 2020). This evolution has resulted in the emergence of digital activism, also referred to as cyberactivism. This is considered a strategy to generate discussion around issues on the public agenda, through the dissemination of viral messages in digital media (Ugarte, 2018).

It is from this standpoint that this research endeavours to examine the digital activism embodied in 'activist influencers' advocating for 'eco' causes. The focus is on the implicit responses (attention, visual pathways and emotion) and explicit responses (association, coherence and credibility) that are engendered by their messages. In order to achieve this objective, the following theoretical framework will address the key concepts of the research: The terms "civic engagement", "activism" and "influencer-activists" are all used to refer to the same phenomenon.

2. Theoretical Framework

From a comparative perspective, the terms "civic engagement" and "activism" are conceptually related, insofar as both are used to denote the phenomenon of a group of people coming together to publicly advocate for a common cause. This theoretical framework methodically traverses the academic literature to ultimately introduce the term "activist influencer".

2.1. Civic Engagement

There is extensive and varied literature on engagement. For the purposes of this research, however, only contributions addressing the individual citizen's free desire to engage in public affairs will be considered (see, for example, Adler y Goggin, 2005; Brady, 1999; Carpini, 2004; Carpini, 2009; Carpini et al., 2004; Cooper, 2005; Putnam, 1993, 1995, 2000; Teorell et al., 2007; Verba y Nie, 1972; World Bank, 2014).

In this respect, Putnam (1993, 1995, 2000) is one of the most relevant sources of reference. According to him, an engaged citizen is someone who is informed (because they read the press), trusts the system and their fellow citizens, and gets involved in political life (by voting in elections) and social life (by participating in associations and public meetings).

Similarly, Verba and Nie (1972) define civic engagement as the actions an individual takes to establish a relationship with public authorities. These could include voting, participating in a campaign (e.g. joining or working for political parties and organisations, or donating money), contacting public officials, or carrying out cooperative or communal activities.

There seems to be a consensus in the literature on the direct relationship between citizen engagement and democratic participation. This implies that engagement requires public action aimed at influencing the environment. Such influence may be directed towards obtaining:

- Political outcomes (Brady, 1999), in which case we speak of political engagement. An example of formal political participation is electoral participation.
- Social influence. This involves joint deliberation 'within a range of interests, institutions and networks, developing civic identity and engaging people in governance processes' (Cooper, 2005, p. 534).

This second option has been defined as civic engagement (Berger, 2009; Norris, 2002, 2003; Stolle & Hooge, 2005), or as 'extra-parliamentary participation in the form of activism' by Ekman & Amna (2012). Legal activism can involve signing public or political petitions on issues that affect society as a whole, whereas illegal activism refers to all demonstrations that are politically motivated but fall outside the legal framework.

In this context, citizens 'do many things that may not be directly or unequivocally classified as political participation' (Ekman & Amna, 2012, p. 288), i.e. actions that 'involve societal participation' but are 'not directly aimed at influencing those in power' (p. 288).

This final form of engagement — civic or activist engagement within the legal framework and linked to the defence of causes that are not strictly electoral, such as those related to political engagement — is the framework of study that provides a logical basis for discussing the concept of the 'activist influencer'.

2.2. Definition and Characteristics of Activism

Activism can be defined as 'a series of actions carried out by individuals known as activists, who are sometimes organised into associations, platforms, NGOs or informal groups, with the aim of bringing about change in the social, economic or political order' (Muñoz, 2021, p. 1). Consequently, an activist is someone who is "active in seeking political or social change and may carry out their activities alone or as part of an organisation, political party or NGO" (Muñoz, 2021, p. 1).

Traditionally, activist organisations have developed public advocacy campaigns around issues outside the political establishment's remit, "such as environmental preservation, women's rights, minority rights, anti-racism and poverty" (Muñoz, 2021, p. 2). In other cases, reasons for activism have also included men's rights, the economy, and fighting immigration (Muñoz, 2021). In all cases, activists aim "to solve problems in a participatory, egalitarian and cooperative way" (Zeler et al., 2020, p. 27).

Due to the nature of their activities, activists have typically operated alongside the system, carrying out low-cost activities and making use of both traditional media and direct actions, such as collecting signatures, painting murals and sending text message chains (Muñoz, 2021).

The emergence of new technologies has facilitated their proliferation due to the low cost of disseminating a message with mass impact, either via the internet or telephone. Muñoz (2021) recognises that 'the use of new technologies has always been a key aspect of activism' (p. 2), supported by Della Porta (2016), Pickard (2017) and Stier et al. (2018). "Activist organisations take advantage of new communication technologies to promote their messages and reduce the costs of recruiting new members and coordinating actions and campaigns" (p. 2).

Thus, the authors agree that "every major technological revolution, especially those directly related to communication, has always had a direct effect on political participation and general political dynamics" (Muñoz, 2021, p. 2). The study of this phenomenon is the subject of the following section.

2.3. Civic Engagement Online or Digital Activism

The overall use of social networks has steadily increased in recent years. The number of users worldwide is expected to increase to 6 billion in 2028 (Statista, 2024), which is a stratospheric figure considering that, according to the same source, less than five years ago, the number was practically half of that (3.5 billion users in 2019). In Spain, social network penetration and usage continues to grow, and if Statista's (2023a) forecasts are realised, the number of users could exceed 45 million from 2027 onwards.

While social networks have seduced people of all ages in Spain, it is undoubtedly the younger generations who are regular users. In 2023, 90% of Spaniards aged 16–24 will use some type of social network (Statista, 2023b). Similarly, the second-largest age group of users was 25–34-year-olds, with a usage rate of over 85% (Statista, 2023b). In terms of social network preferences, Instagram was the most popular network nationally in 2023, with almost 70% of monthly users, followed by Facebook with around 66% (Statista, 2023c).

Against this background, within the field of digital activism, it is unsurprising that scholars have addressed the question of whether social media use can motivate users to take an interest in politics (Jung et al., 2011; Park, 2013; Vitak et al., 2011). Additionally, the social media political participation model (SMPPM; Knoll et al., 2020) has been developed to describe the conditions and processes under which social media use can predict a certain level of political participation of varying intensity (low or high effort).

While these efforts are useful, they focus strictly on measuring the causes and effects of political engagement online and neglect to measure potential civic or activist engagement generated in that same environment. In practice, the figure of the political influencer has traditionally been studied more than that of the influential activist. Recent studies have referred to the latter as the 'activist influencer' (Muñoz, 2021; Thomas and Fowler, 2023). Although there is no agreed definition, certain criteria can help outline who these people might be (Scarlet, 2013):

- Number of followers: divided into celebrities, opinion leaders, and prosumers.
- Form of action: they may dedicate themselves to a 'niche issue' involving specialisation in a sector, generalist issues, or trending or occasional causes.
- Influence capacity: they are considered to be mega-influencers (more than one million followers), macro-influencers (between 100,000 and one million followers) or micro-influencers (more than 3,000 followers, but fewer than 100,000) (Lin et al., 2018).

Thus, an influencer in the field of activism could be defined as follows:

A content creator with a large number of followers who uses social networks to communicate and interact with other users by sharing and creating opinions, thoughts, ideas or reflections relating to a cause, with the aim of encouraging action (García Fortuny, 2018; Serrano, 2018; Ugarte, 2018, as cited in Zeler et al., 2020, p. 29).

This definition forms the basis for the analysis in this study, the objectives of which are described in the following section.

3. Objectives

The overall objective is to analyse the explicit and implicit impact generated by posts from activist influencers on Instagram, particularly those with a "green" or "eco" profile.

The following specific objectives (SO), research questions (RQ) and associated hypotheses (H) have been set out based on this:

- SO1: Analyse the implicit responses (attention, visual pathways and emotion) produced by messages from "green" or "eco" activist influencers.
 - RQ1-A: Which profiles generate the most attention among the public?
 - *H1-A: Profiles where the image is accompanied by text generate more attention.*
 - RQ1-B: Which profiles generate the most positive emotions?
 - *H1-B: Profiles including images about the cause (without being montages) generate more positive emotions.*
- SO2: Analyse the explicit responses in terms of association, coherence and credibility produced by messages from "green" or "eco" activist influencers.
 - RQ2-A: Which profiles generate the strongest associations?
 - *H2-A: Profiles where the character is visible generate greater association with the identifiable cause.*
 - RQ2-B: Which profiles generate the greatest credibility and sense of coherence?
 - *H2-B: Profiles where the character is visible generate greater credibility and a sense of coherence.*

4. Methodology

To this end, a pilot study was conducted with a convenience sample of 62 participants (26% male and 74% female) with a higher representation of the 18-24 (58.06%) and 25-34 (30.65%) age groups. These age groups represent the majority users of social networks (Statista, 2023a, 2023b). The remaining 11% of respondents are aged between 45 and 54.

4.1. Selection of the Analytical Sample

According to a report by BayWa r.e. (2023), a company specialising in the development of renewable energy services and solutions, online conversations about climate change have systematically increased over the last decade, reaching an average of 3.16 million mentions per month on this topic globally. Furthermore, of all the activist causes that can be observed, the environment is the only one with an established ranking of activist influencers. In accordance with the aforementioned points, Table 1 presents a list of the ten most followed "eco" profiles on Instagram:

Table 1. Profiles of "eco" activist influencers

Name	Instagram profile	Followers	Influence capacity	Niche" theme
Gotzon Mantuliz	@gotzonmantuliz	676.000	macro influencers	Preserving and protecting the oceans
Inés Arroyo	@ines_arroyo	310.000	macro influencers	Fashion and sustainability
Victoria Moradell	@victoriamoradell	296.000	macro influencers	Natural cosmetics
Carlota Bruna	@carlotabruna	233.000	macro influencers	Veganism, conscious consumption
Jon Kareaga	@jonkareaga	230.000	macro influencers	Climate activism
Marta Rosique	@planteaenverde	159.000	macro influencers	Plants and eco-life
Paula	@Blondiemuser	63.900	micro influencers	Sustainability
Marina Testino	@marinatestino	60.100	micro influencers	Environmental awareness
Laura Opazo	@laura_opazo	47.200	micro influencers	Sustainable fashion
Maria Negro	@soymarianegro	20.200	micro influencers	Environmental awareness for business

Source: Own elaboration based on Zeo (2022).

Following the identification of all relevant activist influencers, the final sample for this study comprised the six individuals with the most followers. These individuals are therefore classified as macro influencers. This sample maintains a representative variety of issues defended (causes of activism), as illustrated in the final column of Table 1.

4.2. Selection of Variables for the Analysis

Each of the projected stimuli (see Figures 1 to 6) is composed of a combination of two publications made by the influencers. The following variables were considered during the selection of images:

4.2.1. Independent variable

Cause of activism. Each of the posts was related to one of the causes championed by the selected influencers (see Table 1). In order to guarantee the validity and faithful representation of reality (the Instagram feed of each individual), the posts were composed with the most predominant elements of the influencers in mind. The following is to be considered: the utilisation of the character's own image (cf. Stimuli 1 to 5), the accompanying text (cf. Stimuli 4 to 6), real images (cf. Stimuli 1, 3, 4 and 5) and fictional images (see Stimuli 2 and 6).

4.2.2. Dependent variables

Attention and visual pathways. The analysis of attention and visual pathways was facilitated by the implementation of the Eye Tracking technique, a tool developed by Tobii (<https://www.tobii.com/es/products/sticky-by-tobii-pro/>) and previously validated in the context

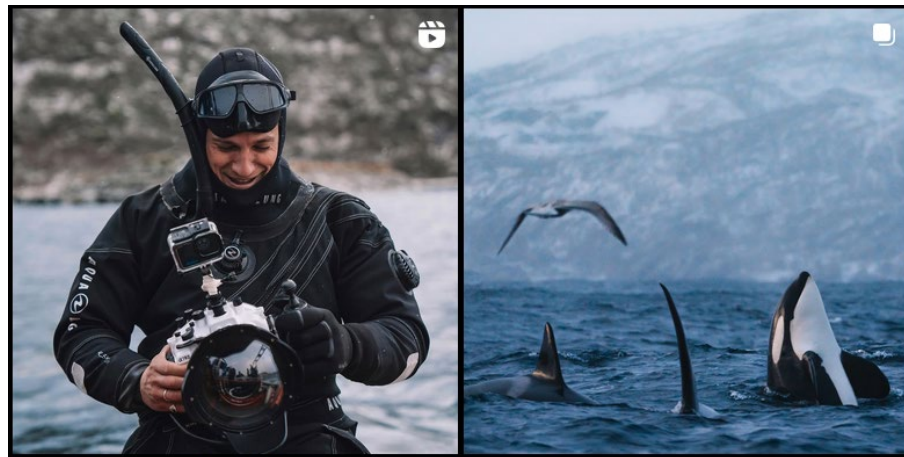
of neurocommunication research (Martínez, 2021; Martínez and Piqueiras, 2024). This technique enables the online monitoring of eye movements through a webcam, facilitated by a link provided to the participants. The programme is capable of detecting the subjects' faces and tracking their pupils by predicting the point at which they look at a frequency of 15 Hz. The results are presented in the form of heatmaps, visual pathways and areas of interest (AOI).

Emotional response. The programme utilises facial recognition technology to interpret participants' micro-expressions, categorising them according to valence (positive, neutral, or negative) and elicited emotions (disgust, fear, joy, confusion, sadness, and surprise).

Association. A short questionnaire was distributed to participants after they had viewed the stimuli. The subjects were invited to indicate whether they associated the projected stimulus with any of the following causes: The following topics will be discussed: 1) the preservation and protection of the oceans; 2) fashion and sustainability; 3) natural cosmetics; 4) veganism and conscious consumption; 5) climate activism; and 6) plants and eco-living. The motivation behind the inquiry was to identify plausible relationships between the images and the factors that motivate activism.

Coherence and Credibility. The participants were then posed a subsequent query. What is the relationship between the cause that you advocate and the image that you project? Participants were permitted to select multiple answers from a list of possible responses, including whether they found the association to be coherent, credible, fabricated, or motivated by financial gain or popularity.

Figure 1. First stimulus corresponding to Gotzon Mantuliz's account.



Source: Mantuliz, G. [@gotzonmantuliz], 2024.

Figure 2. Second stimulus corresponding to the account of Inés Arroyo



Source: Arroyo, I. [@ines_arroyo], 2024.

Figure 3. Third stimulus corresponding to Victoria Moradell's account.



Source: Moradell, V. [@victoriamoradell], 2024.

Figure 4. Fourth stimulus for the account of Carlota Bruna



Source: Bruna, C. [@carlotabruna], 2024.

Figure 5. Fifth stimulus corresponding to Jon Kareaga's account.



Source: Kareaga, J. [@jonkareaga], 2024.

Figure 6. Sixth stimulus for the account of Marta Rosique



Source: Rosique, M. [@planteaenverde], 2024.

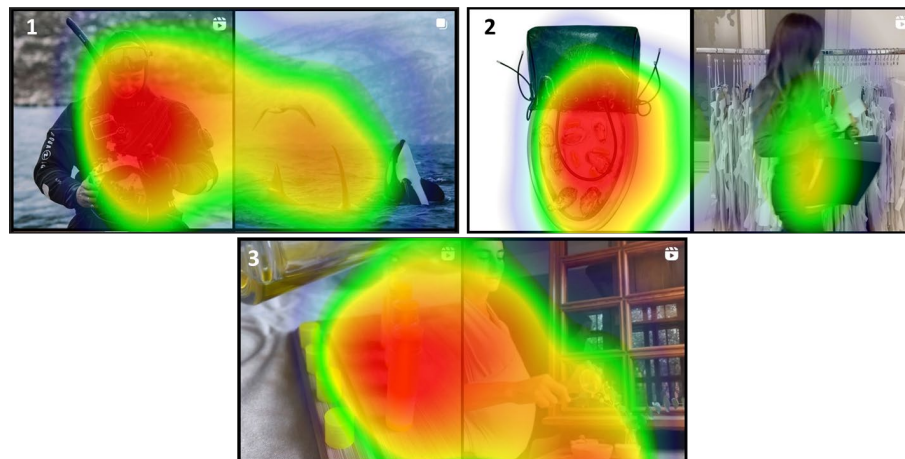
In accordance with the ethical protocols approved by the Department of Communication Theories and Analysis at the Complutense University of Madrid, subjects were informed of the purpose of the research.

5. Results

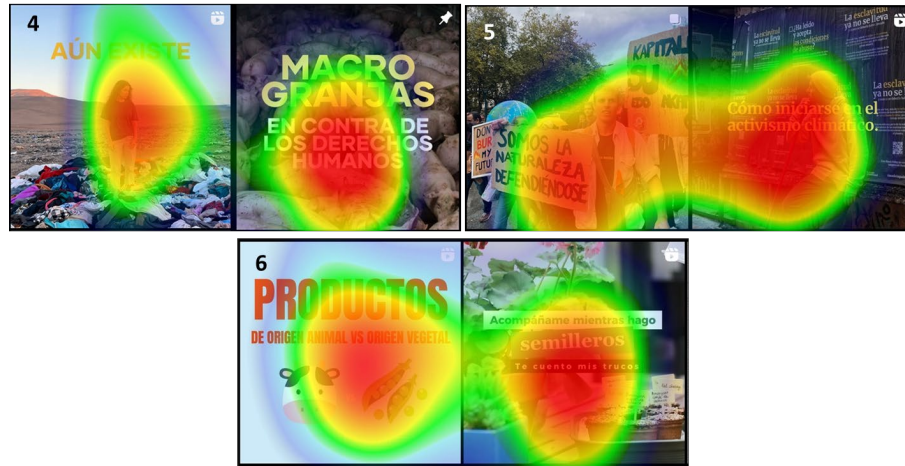
The results presented below follow the same order as the objectives and methodology. Thus, we first consider the implicit responses (attention and emotion, in that order), followed by the explicit responses (coherence and credibility, respectively).

The heat maps created by Sticky are useful for identifying the areas of greatest interest to the audience in terms of the attention generated. Redder colours represent more attention than yellows and greens. As can be seen in the following heat maps, for stimuli 1, 2 and 3 (Figure 7), the image on the right captures more attention than the image on the left. The opposite is true for stimuli 4, 5 and 6 (Figure 8).

Figure 7. Heat map of stimuli 1, 2 and 3.



Source: Own elaboration based on the results obtained, 2025.

Figure 8. Heat map of stimuli 4, 5 and 6.

Source: Own elaboration based on the results obtained, 2025.

Examining the points of interest in each image composition reveals that text captures the most attention, followed by real images, fictitious images, and images featuring the influencer. Table 2 provides further information in the form of a comparison of the viewing ratio (measured as a percentage of participants who have seen each element, represented in Table 2 as 'Sb', meaning 'seen by') and the time spent on each element (measured in seconds and represented by the acronym 'Tv', meaning 'time viewed').

Table 2. Comparative ratio and fixation time

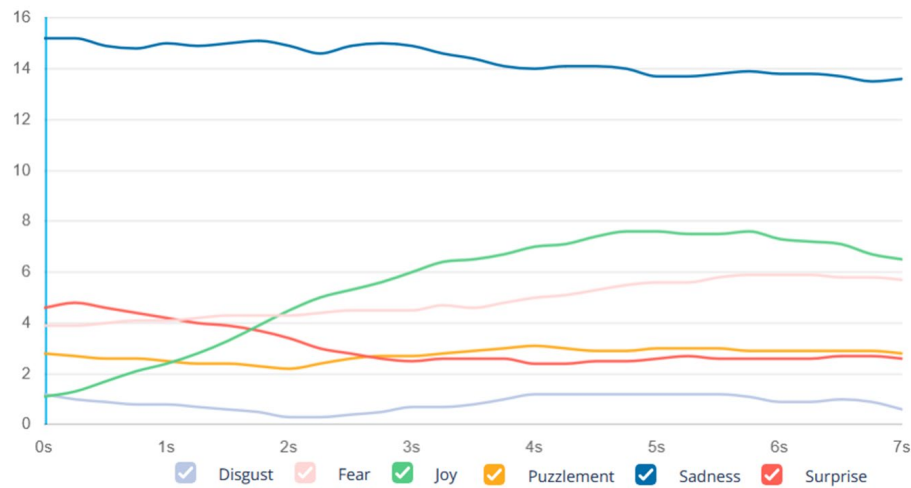
AOI	Stimulus 1 @gotzonmantuliz		Stimulus 2 @ines_arroyo		Stimulus 3 @victoriamoradell		Stimulus 4 @carlotabruna		Stimulus 5 @jonkareaga		Stimulus 6 @planteaenverde	
	Sb(%)	Tv(s)	Sb(%)	Tv(s)	Sb(%)	Tv(s)	Sb(%)	Tv(s)	Sb(%)	Tv(s)	Sb(%)	Tv(s)
Character	83,9	1	90,3	0,85	95,2	1,02	93,5	0,9	93,5	0,7	-	-
Text	-	-	-	-	-	-	100	1,57	93,5	0,85	90,3	1,32
Fictitious image	-	-	98,4	1,7	-	-	-	-	-	-	93,5	1,01
Actual image	100	1,33	-	-	98,4	1,46	-	-	-	-	-	-

Source: Own elaboration, 2025.

Common patterns emerge in the emotions generated, as well as differences depending on the stimuli analysed. A common element is that, in all six stimuli, the expression related to 'sadness' is predominant, followed by 'fear', with the exception of Gotzon Mantuliz's publication (stimulus 1, Figure 9), where 'joy' is the second predominant emotion.

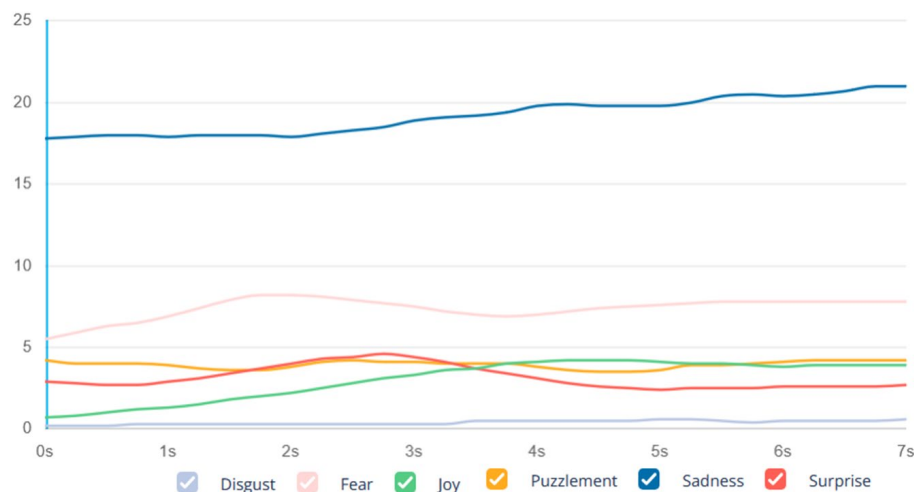
The greatest differences are seen in the evolution of emotions linked to 'confusion', 'surprise' and 'disgust'. While all stimuli except stimulus 1 begin with a feeling of 'confusion', only stimulus 2 (Inés Arroyo) maintains this level almost until the end of the viewing, alongside the feeling of 'disgust'. In stimuli 3 (Victoria Moradell), 4 (Carlota Bruna) and 6 (Marta Rosique), 'confusion' and 'surprise' remain consistent throughout, with 'confusion' starting and finishing slightly higher. In the case of Jon Kareaga's publication (stimulus 5), both 'confusion' and 'surprise' decrease towards the end, making way for an increase in 'joy' (Figure 10).

Figure 9. Emotions elicited by stimulus 1



Source: Own elaboration based on the results obtained, 2025.

Figure 10. Emotions elicited by stimulus 5



Source: Own elaboration based on the results obtained, 2025.

These results allow us to answer the first research question and validate hypothesis H1-A: profiles that use a real image accompanied by text generate the most attention among the public. Furthermore, text is the element that captures the most attention.

Likewise, hypothesis H1-B is also valid: publications with real images about the cause are associated with the most positive emotions (where the level of the feeling 'joy' is higher). In this case, these are the publications of Gotzon Mantuliz (@gotzonmantuliz) relating to oceans, and of Jon Kareaga (@jonkareaga) relating to climate activism.

Furthermore, the results relating to association, coherence and credibility revealed how participants associate stimuli with certain causes, and the relationship between these stimuli and the associated cause.

Table 3. Comparison of the association of the image with the advocated cause

Associated cause	Stimulus 1 @gotzonmantuliz	Stimulus 2 @ines_arroyo	Stimulus 3 @victoriamoradell	Stimulus 4 @carlotabruna	Stimulus 5 @jonkareaga	Stimulus 6 @planteaenverde
Fashion and sustainability	1,61%	41,94%	-	19,35%	-	-
Veganism and conscious consumption	-	12,90%	12,90%	46,77%	1,61%	51,61%
Preserving and protecting the oceans	87,10%	-	-	-	-	-
Natural cosmetics	-	1,61%	29,03%	-	-	3,23%
Plants and eco-life	-	-	46,77%	1,61%	3,23%	38,71%
Climate activism	8,06%	-	-	25,81%	95,16%	1,61%
I can't find any association	3,23%	43,55%	11,29%	6,45%	-	4,84%

Source: Own elaboration based on the results obtained, 2025. Note: the values in red represent the percentage of people who correctly associated the image with the cause defended by the *influencer*.

In terms of association (see Table 3), only two of the six stimuli (1 and 5) were found to be associated with the cause that the influencer claims to defend. Gotzon Mantuliz was associated with preserving and protecting the oceans by the majority of the sample (87.10%), and Jon Kareaga was associated with climate activism (95.16%).

Two of the stimuli (2 and 4) were ambivalent about their association with a cause. Although Inés Arroyo presents herself as an advocate of fashion and sustainability, half of the participants failed to associate her with any cause based on the projected stimuli. A similar situation arises with Carlota Bruna, who advocates veganism and conscious consumption; however, only half of the participants were able to associate her with such a cause.

Finally, stimuli 3 and 6 had the worst association rates. Most participants associated Victoria Moradell with plant care and eco-living (46.77%) rather than natural cosmetics (29.03%). The same was true of Marta Rosique (@planteaenverde), who was more associated with veganism and conscious consumption (51.61%) than with plants and eco-living (38.71%).

According to coherence and credibility (Table 4), most of the images reported being coherent and credible with the associated cause, although some were more associated with coherence (1, 5 and 6) and others with credibility (3). The stimulus corresponding to influencer Gotzon Mantuliz was perceived as the most coherent (67.74%) and the least fake or created for financial gain or popularity (4.84%). Victoria Moradell had the most credible profile (50%), followed by Carlota Bruna, whose credibility (40.32%) was slightly surpassed by coherence (51.61%). Inés Arroyo (@ines_arroyo) has the most damaged profile, with her publications being perceived as the most fake or created to obtain money and popularity (41.94% in both cases).

Table 4. Comparison according to coherence and credibility

Associated cause	Stimulus 1 @gotzonmantuliz	Stimulus 2 @ines_arroyo	Stimulus 3 @victoriamoradell	Stimulus 4 @carlotabruna	Stimulus 5 @jonkareaga	Stimulus 6 @planteaenverde
It is coherent	67,74%	8,06%	33,87%	51,61%	58,06%	48,39%
It is credible	32,26%	17,74%	50%	40,32%	37,10%	38,71%
It is faked	6,45%	41,94%	17,74%	9,68%	9,68%	6,45%
It's about money or popularity	4,84%	41,94%	9,68%	9,68%	16,13%	17,74%

Source: Own elaboration based on the results obtained, 2025.

These results allow us to partially validate hypothesis H2-A and answer the second research question: profiles with a visible image of the character generate a stronger association with the identifiable cause. However, the character image is not valid in isolation and could be combined with other snapshots, such as a real photograph or one accompanied by text, to facilitate this association.

Similarly, hypothesis H2-B is partially validated: profiles with a visible image of the character generate greater credibility and a sense of coherence, though this applies to most stimuli, not all. The joint use of character images alongside other types of real images or images accompanied by text appears to contribute to the sense of coherence and credibility of the posts.

6. Conclusions

This research project aimed to analyse the messages of activist influencers on Instagram with a 'green' or 'eco' profile. This was achieved by examining both implicit (attention, visual pathways and emotion) and explicit (association, coherence and credibility) responses. Taking into account the results obtained from the experiment combining a questionnaire and eye tracking, the conclusions are set out below.

6.1. Conclusions at the theoretical level

The analysed profiles can be categorised as "engaged individuals" or civic activists, as they fulfil the characteristic of "participating in the public sphere" (Dunne, 2008, p. 17). This makes them active and involved individuals (Marlowe Jr. & Arrington-Marlowe, 2005), who have a "range of interests, institutions and networks" and are developing a civic identity (Cooper, 2005, p. 534). This civic identity is also related to actions that cannot be directly or unequivocally classified as political participation (Ekman & Amna, 2012, p. 288), i.e. actions involving societal participation that are not directly aimed at influencing those in power (p. 288).

Due to the manner in which they communicate, their profile is considered not only civic but also digital, as they utilise new technologies to disseminate their message. Consequently, their public advocacy on issues such as environmental preservation, responsible consumption and an 'eco' lifestyle benefits from the reach of the internet, enabling them to have a significant impact on society (Muñoz, 2021). In fact, the literature recognises these analysed profiles as macro-influencers due to their large number of followers. In short, all of the analysed profiles have the capacity to influence society by advocating for "green", "eco" or "environmentally responsible" issues. Based on the literature (Ugarte, 2018; Zeler et al., 2020), these profiles can be considered examples of 'cyberactivism' or 'activist influencers'.

6.2. Empirical findings

In this context, this research analysed the publications of these "activist influencer" profiles on Instagram, identifying four common elements: the influencer's image, real images, fictitious images, and text.

On stimuli and implicit responses. Taking into account the implicit responses (attention, visual routes and emotion) produced by the messages of "green" or "eco" activist influencers, the research found that, of all the possible combinations, real images and text most capture the attention of participants. This was demonstrated by the real image of Gotzon Mantuli, which was captured by 100% of participants and viewed for an average of 1.33 seconds, and the text of Carlota Bruna, which was captured by 100% of participants and viewed for an average of 1.57 seconds. Therefore, it can be concluded that these two elements have the greatest capacity to capture the audience's attention.

Of the two remaining elements, the fictitious image attracted more attention than the character itself, but less than the real image and text. This suggests that the least attractive element in terms of audience interaction with the publication is the influencer's own image.

In terms of the emotions generated, although 'sadness' was the main emotion in all cases (which can be explained by the participants adopting a serious expression when viewing the stimuli), it is worth noting that only the Gotzon Mantuliz publication and the 'Oceans' combination (real image and character) had 'happiness' as the second most common feeling. Although a high value associated with joy is not observed in other publications with the same combination, it can be inferred that one of these elements produces more positive feelings than the others (text and fictitious image).

Regarding the stimuli/messages and explicit responses: According to the explicit responses, the stimuli of Gotzon Mantuliz and Jon Kareaga are the ones most associated with the real cause defended by both influencers (87.10% and 95.16% of the sample, respectively). The next highest rate of character-cause association is found in Carlota Bruna's profile (46.77%). In all three cases, the publications have two things in common: an image of the character and a real image. While it could be concluded that this combination produces the best associations, this pattern does not apply to Victorial Moradell. The two profiles with the lowest association are Inés Arroyo and Marta Rosique (@planteaenverde), who both use fictitious images. Therefore, it can be concluded that using fictitious images does not help the stimuli to be associated with the cause.

Additionally, it is evident that these data directly influence the perceived credibility and coherence of the profiles. In fact, the three influencers most associated with the cause (Jon Kareaga, Gotzon Mantuliz and Carlota Bruna, respectively) also have the highest credibility and coherence ratings overall. Conversely, the profiles that are least associated with the cause are perceived as the most "fake" or as activists "for money or popularity". Therefore, it can be concluded that using one type of image or another does not affect the generation of coherence and credibility. Conversely, using the image of a character alongside a fictitious image (Inés Arroyo) does not generate association with the cause and therefore influences low credibility and coherence of the profile.

6.3. Final conclusions

In short, this research concludes that the combination of visual elements in the publications of the analysed "activist influencers" influences their attractiveness to the public, the positive emotions they generate, their association with a specific cause, and ultimately their credibility and coherence as defenders of environmental issues.

It has been found that publishing real images has a positive impact on all the independent variables used (attention, emotions and association), and using the character's own image also generates positive feelings in the audience and facilitates a stronger association with the cause being defended.

Conversely, accompanying text in posts helps capture the attention of social media users, while fictitious images negatively impact all variables. This means that photo montages decrease attention, positive emotions, and association with the cause advocated by cyber activists.

In terms of coherence and credibility, the clearer the relationship between the influencer and the cause being defended, and the fewer fictitious images used alongside the influencer's image, the higher the level of coherence and credibility.

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