# HAVING FUN SAVING THE CLIMATE: THE CLIMATE INFLUENCER, EMOTIONAL LABOUR, AND STORYTELLING AS COUNTER-NARRATIVE ON TIKTOK

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#### ABSTRACT

"How dare you!". Greta Thunberg's angry address at the United Nations Climate Action Summit in 2019 epitomised the younger generations' emotionally charged critique of the political establishment and that establishment's clear deficit in addressing the climate crisis. Similarly, recent studies of the communication of climate change issues, specifically on the social media platform TikTok, have revealed how Generation Z directly critiques 'boomers' for not preventing the climate crisis (Zeng and Abidin 2021) or explicitly express climate anxiety and helplessness (Kaye et al. 2023). Expressions of emotion are in many ways central to how climate change is addressed on social media, and research has so far focussed primarily on quantitative content analysis of affective publics with TikTok hashtags such as #forclimate (Hautea et al. 2021), #climatechange (Corey et al. 2022) and #ecotok (Huber et al. 2022). Less attention has been paid to how individual influencers address climate change through an emotional focus (Murphy 2021). This article aims to remedy this gap through an analysis of two climate influencers on TikTok and how they address climate change through the lens of fashion and science, respectively. They apply their personas (Marshall et al. 2020) to engage in emotional storytelling (Wahl-Jorgensen 2019) and emotional labour (Senft 2008), as well as using hashtags as part of an affective public (Papacharissi 2016). These two influencer types communicate upbeat and fact-based climate narratives in contrast to other 'gloom and doom' videos shared on TikTok (Hautea et al. 2021; Kaye et al. 2023) and further represent individual takes on counter-narratives to misinformation about climate change (van Eerten et al. 2017). Our analysis exemplifies how, in a qualitative study, we can investigate the extent to which climate influencers, through their emotional address as well as their fact-based communication, contribute to counternarratives about climate change on TikTok.

### **KEY WORDS**

Influencer; Climate Change; Emotional Storytelling; Persona; Counter-Narrative; TikTok

INTRODUCTION: THE CLIMATE INFLUENCER AS A PERSONA

For quite some time, traditional celebrities have engaged with environmental issues, and research has focussed on how they are represented in legacy media (Brockington 2017; Goodman and Littler 2013; Hammond 2017). Abidin et al. (2020) make a useful distinction between different tropes of 'environmental celebrities', including the following categories: 'the Ambassador' (Harrison Ford), 'the white saviour' (Dian Fossey), 'the indigenous heroes' (Chico Mendes), 'the big tech entrepreneurs' (Elon Musk) and 'ordinary people' (Greta Thunberg) (Abidin et al. 2020, p. 393). However, their review seems to overlook the influencer as a type of environmental celebrity in themselves and places Greta Thunberg in the 'ordinary people' category (Abidin et al. 2020, p. 393-394). Whereas Thunberg started out as an ordinary person, she is now a celebrity in her own right, today regarded as an icon of the youth climate change movement (Murphy 2021). Abidin et al. do include social media as a factor in addressing climate change, but they focus on specific hashtag campaigns, 'brandjacking' and online communities (Abidin et al. 2020, p. 404). Nonetheless, the influencer as an individual plays an important part in communicating climate content on social media. They might initially fit into the 'ordinary person' trope, but in contrast to this definition, they achieve fame through specific practices such as sharing intimate information and addressing followers as fans (Senft 2008, Marwick 2015), as well as having a commercial agenda by promoting products and inviting followers to consume (Hearn and Schoenhoff 2016; Hund 2023). In this context, the concept of the 'climate influencer' describes influencers with a self-proclaimed focus on climate, sustainability, and environmental issues as their primary agenda. They do not have a career outside of social media but identify as 'content creators'. They are also 'non-state actors' who are not seeking political office (Boykoff and Goodman 2009) or are attached to a particular NGO. In contrast to Thunberg, they do not 'eschew commodification' (Murphy 2021 p. 203) but instead make a living by performing the persona they have created online (Marshall et al. 2020) and by promoting sustainable products as a business model. However, in contrast to the traditional influencer, climate influencers are defined by presenting a personal narrative of sustainable living and providing information about climate change. The objects of this study are two different types of climate influencers, a sustainable fashion influencer and a climate scientist influencer, whose messages on TikTok will be examined in closer detail. This is not a representative study but rather a textual analysis of a series of selected videos taken from two specific influencer profiles. The aim is to contribute new knowledge related to how personas employ emotional labour (Senft 2008) and emotional storytelling (Wahl Jorgensen 2016) to communicate their climate change agenda on TikTok.

Recently, it has been argued that on TikTok, "the focus on influencer culture has shifted, from their persona strategies and self-branding to their ability to (...) amplify a message and deliver it to specific audiences" (Abidin 2021, p. 6). However, as I aim to demonstrate, climate influencers are still using their personas as an 'online strategic presentation of self' (Marshall 2010). Their persona becomes an integral part of their climate change narrative, as well as amplifying their message using the affordances of TikTok. Moreover, in contrast to influencer culture on Instagram, the focus is less on a particular kind of sophisticated aesthetic (Manovich 2020, Marwick 2015) and more on short videos with direct address and dynamic montages (Corey et al. 2022; Kaye et al. 2022). The climate influencer is typically not a traditional activist, whose focus is more often on advancing and documenting participation (Murphy 2021), on political marches or on explicitly connecting to NGOs such as the Fridays for Futures. Instead, climate influencers make the climate issue their primary agenda by presenting it as a personal motivator expressed through their use of vernacular creativity (Kaye et al., 2020). TikTok is an entertainment platform: this means that the typical approach for the individual climate influencer is to promote an appealing mood while simultaneously avoiding contributing to feelings of guilt or anxiety related to the viewer believing they are not doing enough or are unable to live the perfectly sustainable life. To achieve their affirming emotional goal, they offer a friendly face and an array of accessible options for a sustainable lifestyle in a relatable manner. Through this pathway of display and expression, they also represent a positive counter-narrative to 'gloom and doom' videos, as well as tackling climate change misinformation (van Eerten et al. 2017). To make sense of this form of persona display presented by climate influencers, I will first provide a description of how the expression of emotion is critical to understanding how they perform their persona in at least two major ways: the emotional storytelling, including empathy (Wahl-Jorgensen 2019) and emotional labour including both surface and deep acting in their performance (Senft 2008).

# Emotional storytelling, emotional labour, the affective public, and counter-narratives

Expressions of emotion have been a stable element of celebrity advocacy in legacy media in relation to climate change, exemplified by self-produced climate documentaries by notable personalities such as former US vice-president Al Gore, actor Leonardo DiCaprio and journalist Naomi Klein (Hammond 2017). Considering the presence of this visibly high-profile reality, it is relevant to draw a distinction between the performance of traditional celebrity advocacy and the climate influencer. The traditional celebrity does 'emotion work' when performing in legacy media: This is 'work requiring one to perform the "right" feeling and ultimately even "feel" the right feeling according to the rules of the setting' as when a film star participates in a reality programme or talk show (Nunn & Biressi 2010, p. 49-50). In her study of celebrity humanitarianism, Chouliaraki compares the performance style of celebrity advocates and Hollywood actors such as Audrey Hepburn and Angelina Jolie (2013, p.11). Where Hepburn was 'dispassionate' when drawing attention to the suffering of others, Jolie was emotional and confessional with performance drawing attention to herself 'constructed as part of a trajectory towards personal self-fulfilment' (Chouliaraki 2013, p.11+16). However, in contrast, climate influencers have social media as their primary platform and do not have pre-established fame in the cultural industries. Instead, they have their online persona and, therefore, do not engage in 'emotion work' as traditional celebrities do (Biressi & Nunn 2010). Climate influencers are instead more accurately engaging in 'emotional labour' (Senft 2008) on their social media profile. Emotional labour operates differently for climate influencers than Hollywood stars because climate influencers' primary performance on social media is an integral part of their public persona. Their 'emotional labour', nonetheless, is a performance that needs to be credible, even though it is curated as being intimate, as well as part of their self-brand (Senft 2008). Moreover, this style of performance, as we shall see, is connected to the everyday life of the influencer (Haider 2016): they have their own personal style of communication that they have chosen for their strategic presentation of self (Marshall 2010).

The concept of emotional storytelling, as argued in Emotion, Media and Politics by Karin Wahl-Jorgensen (2019), is relevant here to help explain this environmental influencer's presentation of self and performance of emotion in relation to others. The starting point for Wahl-Jorgensen's work is journalism and factual communication in digital media culture (2019). Her argument is that when emotion is used in communication, it is intricately connected to empathy (Wahl-Jorgensen 2019). It can be argued that distance from a topic or case study provides an objective description when presenting the facts of the story, but when a topic or subject becomes a personal statement, it often engages with empathy. According to Daryl Koehn, 'Empathy allows someone else's experience and perspective to become part of your moral baseline and therefore can function to help overcome prejudices and misconceptions' (Koehn 1998, p. 57 in Wahl-Jorgensen 2019). Building on Koehn, this is what Wahl-Jorgensen defines as emotional storytelling, where empathy offers a specific embodied message that makes it possible to understand the facts while also making them relatable (Wahl-Jorgensen 2019). The disclosure of the personal as part of the self-brand is central to the influencer. On TikTok, the short video format involves giving an engaging performance, often within an everyday setting and where humour plays an important part (Corey et al. 2022, p. 2). As a result, climate influencers on social media, such as TikTok, exemplify a display of emotion and direct communication of empathy compared to traditional celebrity advocacy in legacy media (Robeers & Van den Bulck 2021).

Emotion can also be characterised as a kind of 'emotional labour', as in Theresa Senft's *Camgirls* (Senft 2008, p. 8). Senft stresses that the original cam-girls "served as 'beta-testers' for a range of techniques that have since been taken to a global level on video-sharing sites like YouTube" (Senft 2008, p. 8) and which we can see today on TikTok. What Senft calls 'emotional labour', as mentioned

above, is a specific technique (Senft 2008, p. 8). Building on the work by Hochschild, Senft makes a useful distinction between several types of acting among employees by describing how 'employees engage in two sorts of acting: The surface acting and the deep acting' (Senft 2008, p. 8-9). Surface acting is when you fake a smile or 'without personally identifying with the role one is playing', and deep acting is when 'the employee works to identify with the feelings she needs to project to keep the customer satisfied' (Hochschild in Senft 2008, p. 9). Whether this requires effort or not, is conscious or enjoyable, it still qualifies as labour, and 'the feelings are commoditized' (Senft 2008, p. 9). This distinction is useful in the analysis of climate influencers. The emotional duality can reveal that climate influencers' performance, when using surface acting as their professional kindness, is characterised by an upbeat mood that becomes an integral part of their self-presentation. Whereas, in contrast, their deep acting occurs when they reveal how they feel themselves. On a level that comprises something different than surface and deep acting, climate influencers can also be described as forming 'a networked atmosphere of concern' (Hautea et al. 2021). This atmosphere or mood has been described by Papacharissi as the affective public, in an adaptation of Raymond Williams' 'structure of feeling' that he defines as a common experience. Transposing this idea to social media, Papacharissi defines this formation of the affective public that links the mood and its collective expression (Papacharissi 2016). Her study focuses specifically on political movements on Twitter. Nevertheless, in the particular context of TikTok, her concept of the "affective public" is useful to describe how certain hashtags, on the one hand, set the mood and, on the other, present a method through which the individual influencer can reach out to the connected community. Papacharissi's key point is that this ambience or mood does not necessarily result in action but, ultimately, can support a sense of community and a contemporary cultural context (Papacharissi 2016). This insight is relevant when studying climate influencers because they combine their videos with specific hashtags as a way of engaging with an affective public concerned with climate change issues, as well as their personal messaging. In addition, in relation to TikTok videos, recent research has described them as "simultaneously serious, insightful, and amusing for participants" (Tully & Ekdale, 2014, p. 69). Following this, Cervi and Divon (2023) argue that this mix can be understood as 'serious TikTok' (Cervi & Divon 2023, p. 3), "where users playfully unpack, contextualize, and provide information on socio-political issues using the platform's trends and dialects" (Ebbrect-Hartmann & Divon, 2022, cited from Cervi and Divon, p. 3). This is relevant in relation to climate influencers, too, because the way they communicate may be playful, but the subject matter is serious.

In order to briefly discuss how these climate influencers can be characterised as engaging with counternarratives, van Eerten et al., in their study *Developing a social media response to radicalization*, provide a useful distinction between what they call the counter-narrative spectrum (Van Eerten et al. 2017, p. 27): There is the *direct-counternarrative* messaging which challenges the misinformation by pointing out the wrong information and then there is the *alternative narrative messaging* where the correct information is provided (van Eerten et al. 2017, p. 27). Building on this work, the research questions in this paper are as follows:

- How do the two climate influencers communicate climate change in videos on TikTok using their persona and emotional storytelling in combination with emotional labour?
- How do they reach out to the community with the use of an affective public on TikTok?
- How do their profiles exemplify a counter-narrative to misinformation?

#### Methodology

This is a qualitative study of how two climate influencers on TikTok perform their persona with emotional storytelling, taking advantage of the affordances available through short videos and the vernacular norms of the platform. These two atypical cases have been selected to exemplify two kinds of climate influencers within different areas of expertise (Yin 2006): sustainable fashion and climate science, respectively. Compared to other genres of environmental communication, they intertwine their personal narrative with their climate agenda, which corresponds to the documentaries generated by high-profile celebrities like Al Gore, Leonardo DiCaprio and Naomi Klein (Hammond 2017).

However, as TikTok-based climate communicators, they are also distinctly different from what Zeng, Schäfer & Allgaier (2021) label the traditional educators translating difficult knowledge or experiments and call 'the deficit model'. In addition, they also do not express "their opinions on controversial science issues" (Erviti, Codina, & Leon, 2020 in Zeng, Schäfer & Allgaier 2021, p. 3218). Instead, they are providing information as news, background information and practical solutions to everyday problems. Building on Haider's study (2016), these Tik Tok-based climate communicators demonstrate that "everyday life practices, (...) for instance, social media—shape the way in which information on environmentally friendly living is articulated, shaped, and made meaningful" (Haider 2016, p. 487).

In that sense, influencers' studies belong to the 'public engagement model' of science communication, such as 'the non-organisational science YouTubers approach to communicating science' (Zeng, Schäfer & Allgaier, 2021) and who do not represent an organisation or institution. Furthermore, when communicating climate on TikTok, it becomes crucial that climate influencers are comfortable and confident in operating, where their "vernacular creativity is manifested by its users' technical savviness (employing sonic and visual elements, editing, using filters) and cultural literacy in the youths' in-jokes and coded visual grammar." (Zeng, Schäfer & Allgaier 2021).

They also represent two different areas of climate influencing as they focus on fashion and science, respectively. They also both combine three main categories of influencing in general (Garcia-Rapp 2017) but are specifically concerned with climate communication: They review sustainable and climate-friendly products, they engage in personal stories describing their motivation and engagement in climate change, and they provide self-help guides on to how to live a sustainable life. Like the #ecotok-influencers studied in Huber et al. (2021) through quantitative methods, the two selected climate influencers analysed here both engage in a wide range of environmental issues. However, the climate fashion influencer focuses on sustainable fashion, thrifting, and recycling, and the climate science influencer focuses on scientific information, political initiatives, and waste management. In addition, they both demonstrate the importance of the individual contribution to sustainable living, as well as focusing on the responsibility of government or companies (Huber et al. 2021).

The selection process was based on consulting different listings and magazine articles on popular sustainable fashion influencers and climate scientists, such as The Verge 2022, Nylon 2021, CNN 2023 and Washington Post 2022, and websites such as consciousfashioncollective.com and sustainthemag.com. The two cases selected are @thatcurlytopp (by Jazmine Rogers), with focus on sustainable fashion, lifestyle, and fashion industry ethics and @thegarbagequeen (by Alaina Woods), with a focus on science information, political news and garbage management (@thatcurlytopp 2023f; @thegarbagequeen 2023f). @thatcurlytopp is based in New York and is pursuing a college degree, including courses in fashion technology, and @thegarbage queen has an education in environmental waste and lives in Tennessee (Nylon 2022). The collection of material is drawn from their public profiles on TikTok, and the sampling has taken place over the first six months of 2023. The information on their respective bios (accessed 14 July 2023) states that @thatcurlytopp has made 130 posts since 1 January 2023 and has 54,900 followers on TikTok (@thatcurlytopp 2023f). @thegarbagequeen has made 117 posts since 1 January 2023 and has 357,000 followers on TikTok (@thegarbagequeen 2023f). The videos are included below in the form of screenshots, and links to the videos can be found in the reference section. These two cases have been chosen because they are comparable in terms of performing a positive narrative of the climate change agenda in an upbeat way and because they represent two different areas where climate change is popular on TikTok: fashion (@thatcurlytopp) and science (@thegarbagequeen). The analytical strategy adheres to the research questions and focuses on their persona performance as well as their use of emotional storytelling and emotional labour, addressing an affective public and presenting a counter-narrative to falsehoods and misconceptions in the context of everyday life and emotion. TikTok as a platform is perhaps perceived to a certain extent as 'only' for teenagers and Generation Z, even though this is changing rapidly (Zeng & Abidin 2022, Boffone 2022, Kaye et al. 2022). Still, its status as the most popular platform among

young people only underscores the need to study how the climate crisis is communicated in qualitative studies of individual climate influencers.

# Science and fashion: Analysis of two climate influencers on TikTok

This qualitative study focuses on @thatcurlytopp and @thegarbagequeen as specific personas, having agency and strategically performing their public self on social media platforms (Marshall 2010, Marshall et al. 2020). They explicitly articulate their sustainable fashion agenda and climate change information, respectively, and these are based on factual knowledge. They present themselves in their TikTok bios as @thatcurlytopp (Jasmine Rogers): 'ur fave lil sustainable baddie', founder of the online magazine @sustainablebaddie (she/her)' (@thatcurlytopp 2023f) and @thegarbagequeen Alaina Wood: 'appalachian, sustainability scientist and climate activist' (@thegarbagequeen 2023f). The fashion influencer @thatcurlytopp stresses her status as an entrepreneur in New York and founder of the online magazine. The photo in her 'bio' shows her posing, looking serious and explains the reference to her own curly hair in her handle (@thatcurlytopp 2023f). Whereas @thegarbagequeen focuses on where she is from (the Appalachians is a chain of mountains in eastern North America) and her credentials as a scientist and activist. Her photo shows her smiling and looking friendly. They both present their profile on TikTok as a business and a vocation (Abidin 2020, p. 15–16). Existing studies of TikTok from a quantitative perspective found that the users of the hashtag #forclimate, stated that: 'factual accuracy is secondary to relevance and relatability' (Hautea et al. 2021, p. 8). In contrast, @thatcurlytopp and @thegarbagequeen both communicate fact-based messages in their specific presentations of self. They both share videos in which they present their personal background in education and interests, as well as their motivation for having this climate profile on TikTok.

# The sustainable fashion influencer: Enjoying thrifted fashion

@thatcurlytopp stresses in her video (Figure 1-a) that her goal is to share information, have fun and reveal how ethics in the fashion industry is important. She identifies herself as a content creator with a 'maximalist style', which comes across as both personal and colourful (Nylon 2022). In the 'presentation' video, she is explicit about her TikTok account as a business, but she also emphasises that her online magazine 'sustainablebaddie' is a collective where collaboration is key (Figure 1-b). This video shows how climate influencers engage with followers by incorporating a question from the commentary section and answering it in a video. This online magazine is described in the 'presentation' videos as a source of reliable information on industry ethics (@thatcurlytopp 2023b). Her typical video consists of a styling session, often with the caption 'thrift haul' (Figure 1-a), which includes a montage with music and no dialogue and where she poses in her most recent thrifted clothes or fashion that has been 'gifted' for promotion. This is conceptually close to the popular TikTok lip-sync dance video genre performed in the teenage bedroom (Kennedy 2020). The fashion influencer @ thatcurlytopp focuses on thrifting clothes, sustainable fashion brands and creative ways of rewearing and restyling clothes. As Marwick argues, for the fashion influencer, there is no inherent contradiction between consumption, promotion and staying authentic (Marwick 2013). However, @thatcurlytopp always stresses how her outfits are sustainable, e.g. from a thrift store, often wears the same clothes in new ways using the hashtag #rewearthat or demonstrates how she upcycles old clothes.

@thatcurlytopp also engages with current fashion events, such as her video about The Met Gala (an annual fashion event at the Metropolitan Museum of Art in New York City). In the 'MetGala' video, she reviews the event and commends the 2023MetGala organisers for their sustainable décor and the 'susty fits' (sustainable outfits), such as vintage dresses from designer brands like Chanel or new but sustainable designs from Stella McCartney. This takes the form of a montage, with her speaking from her apartment but interspersed with press photos from the event where she comments on each sustainable outfit (Figure 1-c). As such, this video also qualifies as an example of the systemic critique of the fashion industry.

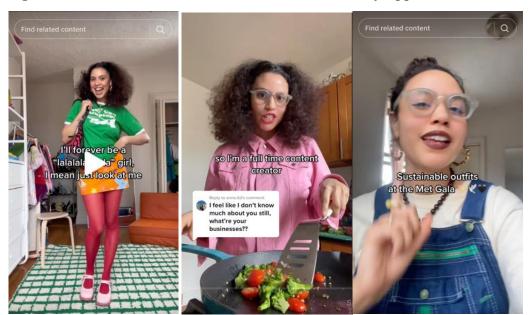


Figure 1: The sustainable fashion influencer @thatcurlytopp on TikTok

Figure 1: Three screenshots of videos from @thatcurlytopp on TikTok: 1-a: The thrift-haul montage in the dance video genre; 1-b: The presentation of self as a content creator and climate influencer in response to comments and demonstrates connection with followers; 1-c: Talking about sustainable designs at The MetGala including content from the news and engaging in industry (systemic) critique. (@thatcurlytopp 2023a, 2023b, 2023c)

### The climate science influencer: Feeling good about facts and sustainable discoveries

@thegarbagequeen explicitly states in her 'specialty 'video, that her area of expertise as a scientist is in solid waste and stormwater management (Figure 2-b) and in an interview she identifies herself as part of a community of environmental creators on TikTok (The Verge 2022). She has stated that her profile on TikTok was a reaction towards the trending of 'gloom and doom' posts, which she argues often results in inaction (The Verge 2022). Her typical post is the weekly video called 'Good Climate News', which is designed to keep people up to date on global level new initiatives and solutions and presented with a constructive and positive attitude (Figure 2-a). In the 'good climate news' video (Figure 2-a), she talks about Toyota's new solid-state battery with a charge-time of 10 minutes and then adds that Australian research has found a way to recycle solar panels. When narrating this news in the video, she sits on her front porch with her cat - the homely vibe and everyday mood are central to her presentation of self. She also uses a video to tell her own backstory, as in 'the speciality' video (Figure 2-a). Here, she talks about how she is an expert on waste - hence the name in her handle - but also explains what stormwater management actually entails. She explains what stormwater management is and makes it relevant by connecting it to current events, which include a recent incident of floods and heavy rain (Figure 2-b). Even though she is a science influencer, she also promotes products such as ecological beer and sustainable cosmetics. However, she occasionally addresses a popular hashtag, such as #nepobaby, on TikTok and goes on to relate it to climate change issues (Figure 2-c). A Nepo baby stands for 'nepotism baby' and describes privileged children who become successful due to the stardom, cultural capital and wealth of their parents. When using the #nepobaby hashtag @thegarbagequeen focuses on how private jets are damaging to the climate in her 'Nepo baby' video (Figure 2-c). The science influencer @thegarbagequeen has a strategic presentation of self on TikTok with the focus on positive climate news, sitting on her porch with her cat performing authenticity, engaging with factual information where she has personal expertise (waste) and trending hashtags but adding a climate-twist so they fit within her profile.

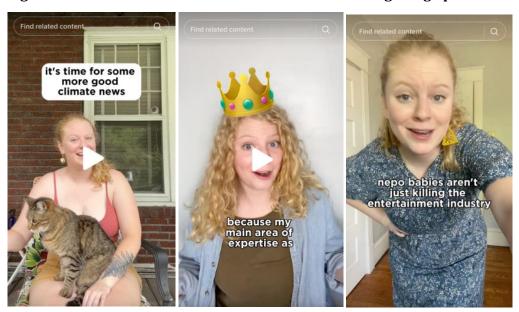


Figure 2: The climate science influencer on TikTok @thegarbagequeen

Figure 2: Three screenshots of @thegarbagequeen on TikTok: 2-a: The Good Climate News – performing everyday life, 2- b: scientist with specialty in waste management and stormwater and with a humorous graphic (the crown) referencing her handle @thegarbagequeen; 2-c: Nepo babies: trending topic presented as a climate theme with consequences for the environment and reaching out with a popular hashtag. (@thegarbagequeen 2023a,2023b, 2013c)

Both climate influencers pay close attention to climate change from their respective areas of interest, and sustainable options are communicated 'through the ordinary efforts of making and practicing everyday lifestyles' (Goodman, Doyle and Farrell 2020, p. 2). They are, in their shared videos, performing a particular lifestyle, usually from the intimacy of their own home, but always having fun with it. From their different perspectives, both influencers are focusing on having agency, either as part of their lifestyle and in relation to what you consume ethically while still being creative and fashionable (@thatcurlytopp), or on how to be informed by science and engage in current events and inventions relevant to a sustainable lifestyle (@thegarbagequeen).

# Analysis of the emotional address and the affective publics

This analysis of the emotional address is central to an understanding of the fashion and science influencers and their presentation of self. However, to analyse the emotional address, we need a brief genre characterisation: The videos on TikTok are in many ways similar to the YouTube aesthetic as "a simplistic and evocative representation of body and shape (...) triggering affective responses" (Vernalis 2013, p. 135). The videos posted by @thatcurlytopp and @thegarbagequeen favour the direct address. and they often change between close-up and medium shots with dynamic zoom and the use of montage: the videos are usually within the factual genre with a combination of the two major documentary modes, as defined by Bill Nichols (2017): the performative mode and the authoritative mode (Nichols 2017) usually in rapid montages with graphics and inserts. They each have their own language style, and apart from the fact that both are fast talkers keeping within the format of short, entertaining videos on TikTok, @thegarbagequeen uses everyday language but with professional terms as well, whereas @thatcurlytopp uses vernacular expressions. @thatcurlytopp is always smiling and giggling and super enthusiastic. In contrast, @thegarbagequeen appears friendly but has a calmer but nonetheless engaged appearance. These videos are documentary hybrids - performative and authoritative - making their self-presentations both informal and personal and always addressing the viewer directly. But how do the climate influencers perform their emotional address?

The notion of emotional labour by Theresa Senft has a useful distinction for the analysis of the performance in videos (Senft 2008) as described in detail above: That is, 'surface acting', which is when you play the role professionally, and 'deep acting', which is when you reveal your own emotional involvement (Senft 2008, 8–9). Both influencer profiles engage the performance as 'professional acting'. They are almost always in a good mood, smiling and upbeat. This is the typical expression, and then there are a few examples of 'deep acting'. An example of deep acting is @thegarbagequeen's 'debunk' video (Figure 3) that uses the feature of the 'stitch' format (combining an existing video which is 'stitched' onto your own video) and where @thegarbagequeen expresses her anger with a video from another TikToker, who is presenting false information, stating in the caption that 'can you tell that I am pissed' (Figure 3-h).

The fashion influencer @thatcurlytopp engages in the emotional labour as deep acting when she responds to a comment (the graphic insert) from a user who does not approve of her 'happy-go-lucky' outlook (Figure 3-i): The comment says, 'I hate when people have such a positive outlook on life' (@thatcurlytop 2023d): @thatcurlytopp quietly explains why she is so cheerful and giggly in her videos, while at the same time acknowledging why the commentator might feel that way. She explains that it represents a 'survival strategy' for her and that she 'comes from a lot of trauma' (@thatcurlytopp 2023d). By so doing, she shows empathy for the follower. She achieves this by explaining her outlook on life and why she performs as she does in her videos. Furthermore, we get a peek into the more private presentation of self (Marshall 2010).

Figure 3: Emotional labour and deep acting

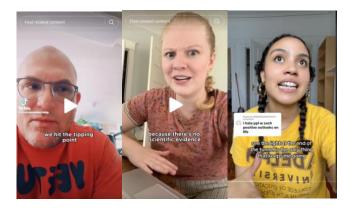


Figure 3: Three screenshots performing emotions: Performing how you feel (deep-acting) and counternarratives: 3-g: @thegarbagequeen: 'Tipping point debunk' stitch: shows the incorrect information and 3-h: where she admits to being angry and then presents the scientific facts as direct counter-narrative. 3-i: @thatcurlytopp: 'survival strategy': where she reveals her own motivation for being in a good mood as a survival strategy (@thegarbagequeen 2023f, @thegarbagequee 2023g, @thatcurlytopp 2023e).

# Emotional storytelling with empathy in combination with an affective public

However, there are exceptions to the examples of emotional storytelling with empathy: taking advantage of the affordances of TikTok with the 'the stitch' genre' or the vernacular address typical of the platform. On the profile of the @thegarbagequeen, the 'Willow' video uses this 'stitch' genre (Figure 4). This video includes a young TikToker looking depressed and voicing worry about the Willow Project. By using the 'stitch' format, @thegarbagequeen is communicating directly with the young TikToker, as well as with her followers. Moreover, this is supported by the caption repeating the consolation empathy and support as well as hashtag, where she states: 'This is really scary stuff, we're dealing with, so it's okay to feel what you are feeling. Don't feel like you have to carry the weight of it, all on your shoulders though.' (@thegarbagequeen 2023e).

In the 'Willow' video, she not only empathises but also legitimises that feeling low is a valid reaction to bad climate change news, such as The Willow project. At the time, a major future oil drilling project in Alaska had been voted through Congress. In addition, @thegarbagequeen also includes hashtags reaching out to an affective public: #climateanxiety, #stopwillow #Stopwillowproject #willowproject, #climateanxiety, #climatechange, #climategrief (@thegarbagequeen 2023e). In this way, she also speaks to a wider TikTok audience in relation to climate issues as well as mental health among young people.

In the 'side-eye' video, @thatcurlytopp has a different approach where she uses the expression 'side eye' (which is slang for commenting that a statement is unacceptable), and this is enacted using a pre-existing sound. By looking sideways, she is performing what the expression literally means (to communicate disapproval), but it is aimed at a quote inserted as a graphic: 'when people say that they don't care to save the planet because there's no hope' (Figure 4). The 'side-eye' video shows a headshot of @thatcurlytopp and is supported by the caption (Figure 4): 'Where she writes 'there's SO MUCH hope! I'll list some climate optimist creators in the comments!!' followed by this cluster of hashtags: #sustainability #lowwaste #zerowaste, #climatecrisis, #climateoptimist (@thatcurlytopp 2023d). Like @thegarbagequeen she empathises and reaches out to the community with hashtags combining a focus on addressing the crisis with optimism through surface acting. However, whereas surface acting is a professional performance, deep acting has the influencer becoming more involved. Emotional storytelling with a focus on empathy is used by both climate influencers in various videos when performing care and consideration of others individually, but also reaching out via hashtags to others who might feel the same way (Figure 4).

Figure 4: Emotional storytelling and empathy on TikTok



Figure 4: Three screenshots from TikTok: 4-d: @thegarbagequeen 'No hope'- TikToker expressing hopelessness, 4-e: @thegarbagequeen responding with empathy in 'the stitch'-genre. 4-f: @thatcrulytopp performing the expression 'Side-eye' – being a sceptic when people give up and lose hope – using the vernacular of the platform. (@thegarbagequeen 2023d, @thegarbagequeen 2023e; (@thatcrulytopp 2023d)

In terms of emotional labour and deep acting (Figures 3-h) @thegarbagequeen gets angry with a TikToker sharing false information about tipping points, while @thatcurlytopp uses a criticism directed at her personal performance as a way of explaining and justifying her positive attitude, but in a constructive manner revealing personal information of a more intimate nature (4-e).

Overall, the surface action shows that their profiles are dominated by humour and having a fun time. They are both generally keeping it light in their mode of address, shifting between surface and deep acting, expressing emotional storytelling as empathy through compassionate responses to the doubtful and depressed. But they also respond with indignation and puzzlement to false statements. Reaching out entails the specific use of hashtags to affective publics – as a general strategy to connect

with a wider audience. They tackle serious subjects and clearly feel responsible to their audience. But they also distance themselves when they encounter misinformation or misconception.

# Counternarratives - positive videos, emotional address and the affective public

Being a climate influencer on TikTok – such as @thatcurlytopp and @thegarbagequeen sets a tone of positivity and hope, as the above analysis has demonstrated. However, there are three individual strategies for the climate influencers when they engage in counter-narratives: There is the basic premise and agenda with a focus on facts and a positive vibe for their TikTok accounts, as analysed above, concerning climate science and sustainable fashion as both interesting and fun. Their counternarratives also include their individual videos and the pro-climate and sustainability hashtags they use to connect with an affective public: The fashion influencer @thatcurlytopp uses hashtags such as #thrifthaul, #thrifting, #secondhand and #sustainablefashion in her 'thrift haul' video. The videos about good climate news by @thegarbagequeen choose hashtags such as #goodclimatenews, #goodnews, #climateoptimism, #hopecore and #climateaction. Although their individual profiles can be accused of 'chanting to the choir' (Metcalfe 2020, p.15) with followers who might already be interested in climate-related issues, the chosen hashtags potentially open for connecting with a wider audience. By engaging with popular hashtags, the climate influencers can be regarded as individual instances of positive counter-narratives (van Eerten et al. 2017) in contrast to the aforementioned 'gloom and doom' hashtags (Hautea et al. 2021). The role of TikTok in the general spread of misinformation has been widely discussed in relation to social media (O'Connor and Weatherall 2019; BBC 2023). Even though this analysis concerns only two specific case studies @thatcurlytopp and the @thegarbagequeen, it is important they be regarded as trustworthy. They both present themselves as personas with authority based on their education, expertise and self-presentation, as analysed above. Leading by example, they show how you can act or engage when you are given the correct information and how you can make individual choices for a sustainable lifestyle while remaining hopeful and keeping a positive outlook on life. The practices of these two climate influencers exemplify a general alternative narrative messaging through the 'surface acting'. With their upbeat, positive attitude and lifestyle approach, through informative videos such as the 'thrift hauls' (Figure 1) as well as 'good climate news' (Figure 2), they represent an alternative to the climate anxiety so widely expressed on TikTok (Hautea et al. 2021). Moreover, these two climate influencers are also engaged in direct counternarrative messaging as in the 'Tipping point debunk' stitch (Figure 3), where @thegarbagequeen is righting factual wrongs, expressing her indignation, and with @thatcurlytopp performing a 'side-eye', addressing 'no hope' and an apathetic stance towards sustainability as unacceptable, while also expressing concern (Figure 4). This is supported by the use of hashtags in the caption, as exemplified above.

To sum up, both climate influencers are engaging in direct counter-narratives and alternative messaging in three separate ways connected to their emotional address: 1) They call out false climate information and misconceptions on TikTok on an individual basis with corrections providing counternarratives ('Tipping point debunk' and 'side-eye' videos). 2) They include their pro-climate hashtags #sustyfits and #goodclimatenews and thereby connect with a larger affective public as a kind of alternative messaging. 3) The alternative messaging is also their overall surface acting coupled with a positive engagement in sustainable living and fact-based climate information. Thus, we need to understand the counter-narratives, alternative messaging, emotional storytelling, emotional labour, and engagement with affective publics as closely interconnected when analysing climate influencers as personas on TikTok.

#### A framework for analysis of the climate influencer narrative on TikTok

These two cases of climate influencers on TikTok, with a focus on emotional labour and storytelling, can hopefully contribute to the qualitative study of climate narratives in more depth in terms of the aesthetics and genre of the messages. This analysis has demonstrated how the two climate influencers

use their *persona* and a playful presentation of self in the short videos on TikTok as a marker of authority when communicating fact-based information about fashion and science in a *performative and authoritative* mode. They use distinct aspects of emotional address and 'answer' other TikTokers directly. This includes 'emotional storytelling with empathy' and emotional labour engaging in 'surface acting (the good mood) with the deep acting revealing their own emotions. They combine the personal with an inclusive approach to the use of hashtags, as well as using the affordances of TikTok to reach an affective public.

This brief perspective can be considered an example of how two positive climate influencers tackle counter-narratives and how posting alternative messaging can be expressed as a part of a personal TikTok account. Although they both address the importance of seeking out facts, their main focus appears to be sustaining hope and positivity in everyday life with 'susty outfits' or 'good climate news' – as well as being part of a community. This analysis can be assembled in an analytical framework (Table 1).

#### Table 1:

#### Analysing the climate influencer videos on TikTok

- a) Persona defining for the strategic online self-presentation (Marshall et al.)
- b) Emotional labour: intimacy and surface acting and deep acting own feelings on display (Senft)
- c) Emotional storytelling and establishing empathy directed towards followers (Wahl-Jorgensen)
- d) Performative and authoritative modes in documentary videos direct-address (Nichols)
- e) Affective publics: the use of hashtags connecting with audiences and setting an agenda (Papacharissi)
- f) Direct counter-narrative or alternative messaging the general tone of the profile and videos (van Eert et al.)

The analytical framework (Table 1) is a starting point for how we can engage in qualitative analysis of climate influencers on social media, with a focus on genres, personas, and emotions, as well as how we can understand them as part of a fact-based counter-narrative.

# Concluding remarks: feeling the pain and having fun

In a wider perspective, the analysis of how climate influencers engage in emotional storytelling and emotional labour can contribute nuance and new case studies to existing quantitative studies of young people experiencing climate anxiety (Marks & Hickman et al. 2021). This qualitative analysis has demonstrated how climate influencers represent a different type of persona and authority compared to traditional celebrity advocates, as well as traditional science communicators (Zeng, Schäfer, and Allgaier 2012, p. 3218). They are 'participants in the social world' and not contingent on belonging to a particular institution or societal hierarchy (Reckwitz 2019, p. 82). They each have a personal and emotional climate-related story to tell (Haastrup 2022, p. 81), coupled with advice on how to live a sustainable life and a strong focus on fact-based information. They also voice systemic critique directed at specific political institutions and industries, but they are individual actors dependent on the attention economy and the support of their followers. This is why climate influencers represent a contrast to the traditional climate celebrity advocates because they do not have 'to confess that they do, really, truly and intimately care about global social injustice' (Littler 2008, p. 239). The climate influencer presents a person who cares about the climate constantly when performing on their personal TikTok account. The traditional celebrity provides the attention for 'the climate cause', but their climate advocacy and credibility are not connected to their everyday lifestyle. However, this is the case for the climate influencers and is an important part of how they establish themselves as a persona and a credible and authoritative source for climate information. The climate influencer offers insight into what it is like when you prioritise daily sustainable options, normalising practices of sustainable living (Haider 2012) and making it an attractive aspiration (Warner 2013). Importantly, they are not

claiming to be perfect but rather doing what they can because 'congruence is key in the words and the deeds of the influencer' (Boerman 2022, p. 933). In that way, they make themselves less vulnerable to critique while also making it easier for followers to relate and connect with them. Climate influencers are thus an example of how the persona is still relevant on TikTok even though 'post-based virality is privileged' (Abidin 2021b, p.80). It would be interesting to conduct further research into whether climate influencers indicate a paradigmatic shift in influencer culture, a shift in which performing a sustainable lifestyle not only entails personas offering lifestyle guides, science information and counternarratives with an emotional address but, perhaps also, becomes synonymous with prestige.

#### WORKS CITED

@thatcurlytopp (2023a): 'thrift-haul'

https://www.tiktok.com/@thatcurlytopp/video/7221224748821351723

- (2023b: 'self-presentation- response'
  - https://www.tiktok.com/@thatcurlytopp/video/7213451166502407467
- (2023c): MetGala https://www.tiktok.com/@thatcurlytopp/video/7228669084479737134
- (2023d: 'side-eye' https://www.tiktok.com/@thatcurlytopp/video/7195290726886903083
- (2023e): I hate people response):
  - https://www.tiktok.com/@thatcurlytopp/video/7254268182926495022
- (2023f): bio https://www.tiktok.com/@thatcurlytopp
- @thegarbagequeen (2023a): good climate news
  - https://www.tiktok.com/@thegarbagequeen/video/7252390757271751978
- (2023b): scientist- waste management and stormwater
  - https://www.tiktok.com/@thegarbagequeen/video/7232308107068575018
- (2023c): nepo-babies <a href="https://www.tiktok.com/@thegarbagequeen/video/7236375244087364910">https://www.tiktok.com/@thegarbagequeen/video/7236375244087364910</a>
- (2023d): Stitch Willow)
  - https://www.tiktok.com/@thegarbagequeen/video/7206000835082603822
- (2023e): Stitch Tipping point debunk)
  - https://www.tiktok.com/@thegarbagequeen/video/7243862339831794986
- (2023f): bio https://www.tiktok.com/@thegarbagequeen
- ABIDIN, C. 2021a. From "Networked Publics" to "Refracted Publics": A Companion Framework for Researching "Below the Radar" Studies. *Social Media + Society.* January-March 2021: 1–13 DOI://1d0o.i1.o1r7g/71/02.10157673/2005162305918240495848458
- 2021b. Mapping Internet Celebrity on TikTok: Exploring Attention Economies and Visibility Labours. *Cultural Science Journal*, 12(1), pp.77–103. DOI: <a href="http://doi.org/10.5334/csci.140">http://doi.org/10.5334/csci.140</a>
- ABIDIN, C. & BROCKINGTON, D. & GOODMAN, M. K. & MOSTAFANEZHAD, M. & RICHEY, L. A., 2020. The Tropes of Celebrity Environmentalism (October 1, 2020). *Annual Review of Environment and Resources*, Vol. 45, pp. 387-410, 2020, Available at
  - SSRN: https://ssrn.com/abstract=3716074 or http://dx.doi.org/10.1146/annurev-environ-012320-081703
- BBC 2023: <a href="https://www.bbc.com/news/technology-66023797">https://www.bbc.com/news/technology-66023797</a>
- BOERMAN, S. C., MEIJERS, H.C. & ZWART, W. 2022. The Importance of Influencer-Message Congruence When Employing *Greenfluencers* to Promote Pro-Environmental Behavior, Environmental Communication, 16:7, 920-941, DOI: 10.1080/17524032.2022.2115525
- BOFFONE, T. 2022. *TikTok Cultures in the United States*. London: Routledge.
- BROCKINGTON, D. 2017. Environment and Celebrity. London: Wiley.
- CERVI, L. & DIVON, T. 2023. Playful Activism: memetic Performances of Palestinian Resistance in TikTok #Challenges. *Social Media + Society*. January March 2023. (p.1-13).
- CHOULIARAKI. L. 2013. *The Ironic Spectator: Solidarity in the Age of Post-Humanitarianism*. Cambridge: Polity Press.

- CNN 2023: https://edition.cnn.com/2023/03/14/politics/willow-project-oil-alaska-explained-climate/index.html
- COREY, H., BASCH, C.H., YALAMANCHILI, B., FERA, J. 2022. #Climate Change on TikTok: A Content Analysis of Videos. Journal of Community Health (2022) 47:163–167 <a href="https://doi.org/10.1007/s10900-021-01031-x">https://doi.org/10.1007/s10900-021-01031-x</a>
- EBBRECT-HARTMANN, T., & DIVON, T. 2022. Serious TikTok: Can you learn about the holocaust in 60 seconds? In V. Walden (Ed.), *Digital holocaust memory*.
- GOODMAN, M. K. & LITTLER, J. 2013. Celebrity Ecologies: Introduction, *Celebrity Studies*, 4:3, 269-275, DOI: 10.1080/19392397.2013.831623
- GOODMAN, M. K. & DOYLE, J. & FARRELL, N. 2020. Practising everyday climate cultures: understanding the cultural politics of climate change. *Climatic Change.* 163:1–7 https://doi.org/10.1007/s10584-020-02863-7
- HAASTRUP, H.K., 2022, 'Personalising Climate Change on Instagram: Self-presentation, authenticity, and emotion'. *MedieKultur: Journal of Media and Communication Research*, 38(72), 065–085. Retrieved from <a href="https://tidsskrift.dk/mediekultur/article/view/129149">https://tidsskrift.dk/mediekultur/article/view/129149</a>
- HAIDER, J. 2012. Interrupting practices that want to matter: The making, shaping and reproduction of environmental information online. Journal of Documentation, 68, 639–658. https://doi.org/10.1108/00220411211256012
- 2016. The shaping of environmental information in social media: Affordances and tech- nologies of self-control. Environmental Communication, 10(4), 473–491. https://doi.org/10.1080/ 17524032.2014.993416
- HAUTEA, S, PARKS, P., TAKAHASHI; B1, & ZENG, J. 2021. Showing They Care (Or Don't): Affective Publics and Ambivalent Climate Activism on TikTok. *Social Media + Society*. April-June 2021: 1–14.
- HAMMOND, P. 2017. *Climate Change and Post-Political Communication Media, Emotion and Environmental Advocacy*. London: Routledge.
- HEARN, A. AND SCHOENHOFF, S. 2016. From Celebrity to Influencer. Tracing the Diffusion of Celebrity Value across the Data Stream. *A Companion to Celebrity*, First Edition. Edited by P. David Marshall and Sean Redmond. London: John Wiley & Sons, Inc.
- HICKMAN, C. & MARKS, E. ET AL. 2021. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *The Lancet* Vol. 5: https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00278-3/fulltext
- HUBER, B., LEPENIES, R., BAENA, L.Q. & ALLGAIER, J. 2022. Beyond Individualized Responsibility Attributions? How Eco Influencers Communicate Sustainability on TikTok, *Environmental Communication*, 16:6, 713-722, DOI: 10.1080/17524032.2022.2131868
- HUND, E. 2023. *The Influencer Industry. The Quest for Authenticity on Social Media*. Princeton: Princeton University Press.
- KAYE, B. ZENG, K. & WIKSTROM, P. 2022. *TikTok: Creativity and Culture in Short Video*. Polity Press. KENNEDY, M. 2020. 'If the rise of the TikTok dance and e-girl aesthetic has taught us anything, it's that
- teenage girls rule the internet right now': TikTok celebrity, girls and the Coronavirus crisis.

  European Journal of Cultural Studies. Vol 23(6), p. 1069-1076.
- LITTLER, J. 2008. "I feel your pain": cosmopolitan charity and the public fashioning of the celebrity soul, SOCIAL SEMIOTICS, 18:2, 237-251, DOI: 10.1080/10350330802002416
- MANOVICH, L. 2020. "The Aesthetic Society," in *Data Publics*, eds. Peter Mörtenboeck and Helge Mooshammer. London: Routledge.
- MARSHALL, P. D. 2010. "The promotion and presentation of the self: celebrity as a marker of presentational media", *Celebrity Studies*. Vol.1: 1, March 2010, pp. 35-48
- MARSHALL, P.D. & MOORE, C. & BARBOUR, K. 2020. Persona Studies. An introduction. London: Wiley.
- MARWICK, A. 2013. "They're really profound women, they're entrepreneurs": Conceptions of Authenticity in Fashion Blogging. International Conference on Weblogs and Social Media (ICWSM).

- 2015. Instafame. Luxury Selfies in the Attention Economy. *Public Culture* 27:1 doi 10.1215/08992363-2798379
- MATAMOROS-FERNÁNDEZ, A. 2023. Taking Humor Seriously on TikTok. *Social Media + Society*, *9*(1). <a href="https://doi.org/10.1177/20563051231157609">https://doi.org/10.1177/20563051231157609</a>
- METCALFE, J. 2020. 'Chanting to the choir: the dialogical failure of antithetical climate change blogs'. *JCOM* 19 (02), A04. https://doi.org/10.22323/2.19020204.
- MURPHY, P.D. 2021. Speaking for the youth, speaking for the planet: Greta Thunberg and the representational politics of eco-celebrity. *Popular Communication*. VOL. 19, NO. 3, 193–206 https://doi.org/10.1080/15405702.2021.1913493
- NICHOLS, B. 2017. Introduction to documentary. Third Edition. Indiana: Indiana University Press.
- NUNN, HEATHER & BIRESSI, A. (2010) 'A trust betrayed': Celebrity and the work of emotion, *Celebrity Studies*, 1 (1): 49–64.
- NYLON. 2022: <a href="https://www.nylon.com/fashion/jazmine-rogers-thatcurlytop-sustainable-fashion-content">https://www.nylon.com/fashion/jazmine-rogers-thatcurlytop-sustainable-fashion-content</a>
- PAPACHARISSI, Z. 2016. Affective publics and structures of storytelling: sentiment, events and mediality, *Information, Communication & Society*, 19:3, 307-324, DOI: 10.1080/1369118X.2015.1109697
- RECKWITZ, A. 2019. Singulariteternes Samfund. Copenhagen: Hans Reitzel Forlag.
- ROBEERS, T. & VAN DEN BULCK, H. (2021) 'Hypocritical investor' or Hollywood 'do-gooder'? A framing analysis of media and audiences negotiating Leonardo DiCaprio's 'green' persona through his involvement in Formula E, *Celebrity Studies*, 12:3,444-459, DOI: 10.1080/19392397.2019.1656537
- SCHMUCK, D. 2021. Social media influencers and environmental communication. In B. Takahashi, J. Metag, J. Thaker, & S. E. Comfort (Eds.), *The handbook of international trends in environmental communication* (pp. 373–387). London: Routledge.
- SENFT, T. 2008. Camgirls. Peter Lang Publishing.
- SUSTAIN THE MAG. 2022. https://www.sustainthemag.com/style/meet-jazmine-rogers-sustainable-fashion-it-girl
- THE VERVE. 2022: <a href="https://www.theverge.com/23030924/tiktok-alaina-wood-climate-change-sustainability">https://www.theverge.com/23030924/tiktok-alaina-wood-climate-change-sustainability</a>
- VAN EERTEN, J., DOOSJE, B., KONIJN, E. DE GRAAF, B. & DE GOEDE, M. 2017. Developing a social media response to radicalization: The role of counter- narratives in prevention of radicalization and deradicalization. University of Amsterdam: Copyright © 2017, WODC. <a href="https://www.researchgate.net/publication/327667910">https://www.researchgate.net/publication/327667910</a>
- WAHL-JORGENSEN, K. 2019. Emotion, Media and Politics. London: Wiley.
- VERNALIS, CAROL. 2013. *Unruly Media: YouTube, Music Video, and the New Digital Cinema*. Oxford: Oxford University Press.
- WARNER, H. 2013. Fashion, celebrity and cultural workers: SJP as cultural intermediary. *Media, Culture & Society*, *35*(3), 382–391. doi:10.1177/0163443712471781
- WASHINGTON POST. 2022. TikTok star on how we talk about climate change and solutions. https://www.washingtonpost.com/washington-post-live/2022/12/07/bill-nye-tiktok-star-how-we-talk-about-climate-change-solutions/
- WATERLOO, S.F, BAUMGARTNER, S.E., PETER, J. & VALKENBURG, P.M. 2018. Norms of online expressions of emotion: Comparing Facebook, Twitter, Instagram, and WhatsApp. *New media & society* 2018, Vol. 20(5) 1813–1831
- YIN, R.K. 2009. Case study research: Design and methods (4th Ed.). Thousand Oaks, CA: Sage.
- ZENG, J., SCHAFER, M.S. & ALLGAIER, J. 2021. Reposting "Till Albert Einstein Is TikTok Famous": The Memetic Construction of Science on TikTok. *International Journal of Communication* 15(2021), 3216–3247 1932–8036/20210005
- ZENG, J. & ABIDIN, C. 2021. '#0kBoomer, time to meet the Zoomers': studying the memefication of intergenerational politics on TikTok, Information, Communication & Society, 24:16, 2459-2481. DOI:10.1080/1369118X.2021.1961007

ZHANG, A. L. AND LU, H. 2023. Scientists as Influencers: The Role of Source Identity, Self-Disclosure, and Anti-Intellectualism in Science Communication on Social Media. *Social media + society*, Vol.9 (2).

(All links were accessed 14 July 2023)