

Camelia CUȘNIR*

TikTok Design and Experience: A Semiotic Technology Approach

Abstract

This article proposes a multimodal semiotic analysis of the TikTok application, exploring how its infrastructure shapes user experience and meaning production. Drawing on the tradition of semiotic technology (Poulsen et al., 2018; Zao et al., 2014), we examine how TikTok's technical features influence user and creator interactions, offering a complementary social semiotic perspective on the platform's success. We consider the TikTok application and the TikTok videoclip as semiotic artefacts and the application design as a semiotic practice, generating, on a second level, the user-viewer, respectively the user-creator, experience and practice. All these dimensions, artefacts, and practices are interrelated. Through semiotic analysis, we investigate TikTok's functionality, and the addictive qualities simulated by its design, employing a comparative approach with other social media design (Facebook, Instagram, X, LinkedIn or YouTube). Our analysis reveals TikTok's deliberate design choices that prioritize visual engagement and seamless interaction. By minimizing linguistic elements and prioritizing immersive video content, the application fosters a continuous scrolling experience akin to an endless movie, compelling users to spend extended periods on the platform. The absence of frames or limits further reinforces the idea that the video content is paramount, drawing users into a self-contained digital world. We argue that TikTok's addictive nature stems not only from its algorithm, but also significantly from its interface design, which shapes the user experience.

Keywords: TikTok; semiotic technology; social semiotic; social media

1. Introduction

TikTok has emerged as one of the most successful applications in recent years (Ceci, 2024; Ceci, 2025; Dixon, 2024). Some studies attribute its success primarily to its algorithm (Wang & Guo, 2023; Taylor & Chen, 2024) while others focus on the platform's addictive qualities (Petrillo, 2021; Yang, 2020). With over 1,58 billion active users as of July 2024 (Dixon, 2024), TikTok is a video-sharing application that encourage users to create and share short-form videos on any topic. Our research intends to provide a complementary perspective on Tik-

* University of Bucharest, Bucharest, Romania, camelia.cusnir@unibuc.ro,
<https://orcid.org/0000-0002-6055-6006>

Tok's success by adopting a social semiotic approach to its design and impact on both user and creator experiences. We propose a multimodal semiotic analysis of the app's digital infrastructure, examining how this infrastructure shapes the user experience and ultimately the production of meaning. The analysis first focuses on the user-viewer experience and, subsequently, on the user-creator experience, where additional application features come into play.

TikTok videos can include various types of content such as dance, lip-syncing, comedy skits, or educational tutorials. The platform enables users to get creative with their content using filters, stickers, voiceovers, sound effects, and background music (Werner, 2024). Once they open TikTok, users are automatically directed to the For You page where they will interact with videos suggested by TikTok algorithm and supposedly tailored to their interest. TikTok allows users to consume personalized content that the algorithm considers to be meaningful to them, based on their passions and interests as suggested by their previous watching historic, without the need to send friend requests to get access to posts. According to Bhandari and Bimo (2022, p. 8), "while on other social media platforms with home feeds the presentation of content often depends on users following the creators of this content, TikTok dispenses with this requirement: content is divorced from the context in which it is created". Taylor and Chen (2024, p. 2) consider that "the focus on algorithmically-personalized content on TikTok is notable compared to other social media because (1) the For You feed is the default page when logging on to TikTok, (2), the For You feed is where most people get their content on TikTok rather than from "Following" page, and (3) many people primarily view and scroll through the TikTok For You feed without directly interacting with their existing networks". The network and networking actions are less significant on TikTok compared to other social media platforms like Facebook or Instagram, where users primarily receive content from their own network. This setting suggests that networking plays a lesser role on TikTok than on other platforms, with greater emphasis placed on content consumption rather than social connection. This aligns with the platform's memetic and decontextualization logic (Darvin, 2022).

Previous research has investigated addiction concerns about using TikTok (Petrillo, 2021; Yang, 2020). The algorithm favors the user-content connection over the connection between people (Barta & Andalibi, 2021, p. 7). According to Barta and Andalibi (2021), the priority of TikTok users is to interact with people who share the same values and passions, not necessarily with people they know in real life. Thus, the limited contact with known individuals and the lack of social prejudice "facilitates an uninhibited expression and an authentic presentation" (Barta & Andalibi 2021, p. 17). Several controversies have appeared around TikTok addiction, some related to its extensive use especially among young people, but also related to the security of personal data, which otherwise determined certain public authorities to prohibit its use on public devices. TikTok is banned on government-issued devices in USA and the EU executive's IT service has instructed all Commission employees to uninstall the app from their corporate devices (Bertuzzi, 2023). The European Commission (2024) has initiated formal proceedings against TikTok for potential violations of the Digital Services Act (DSA). The investigation addresses several concerns, particularly the protection of minors, advertising transparency, data access for researchers, and the management of systemic risks associated with addictive design and harmful content. A key issue is the launch of TikTok Lite in France and Spain, which features a reward-based system that may promote addictive behaviors.

From a semiotic perspective, we aim to contribute to a deeper understanding of the addictive mechanisms embedded in the platform. We will expand on this discussion when examining how the TikTok application has influenced various social norms. Our approach

employs semiotic analysis to explain and understand the TikTok functionality and the way in which its design foster user addiction.

2. Theoretical framework

Our theoretical framework approach relies on three main concepts: digital semiotics, semiotic technology (as a part of the social semiotics), and multimodal semiotics.

The emergence and consolidation of new technologies has imposed a paradigm shift and the need to rethink the communication phenomenon, including the semiotic sphere. Berlanga-Fernández and Reyes (2022) propose the use of “digital semiotics” as a new subdiscipline, or possibly as a branch, or a new approach which would overlaps concepts like “new media semiotics”, “internet semiotics” or the “cultural semiosphere”. In this sense, digital semiotics will include the application of the concepts of traditional semiotics to digital text, whether oral, written, visual or audiovisual (Berlanga-Fernández & Reyes, 2022). Thus, digital semiotics extends traditional semiotic theories to digital texts to better understand meaning-making in digital environments. Recent decades have seen semiotic analysis applied to memes (Canizzaro, 2016; Wiggins, 2019), emoji (Danesi, 2017; Logi & Zappavigna, 2021), the controversy on Twitter (Bottini & Julliard, 2017), the selfie (Zhao & Zappavigna, 2017, 2018; Adami, 2018), the digital traces used in human resources recruitment (Galinon-Mélénec & Monseigne, 2014) or the Pinterest application (Jewitt & Henriksen, 2016).

For social semiotics, “the focus changed from the « sign » to the way people use semiotic « resources » both to produce communicative artefacts and events and to interpret them” (Van Leeuwen, 2005, p. XI), always considering specific social situations and practices. According to Caldas-Coulthard and Van Leeuwen (2003), social semiotics connects semiotic theory to key sociological themes and applies it to domains such as education, cross-cultural communication, and popular culture. Social semiotics “does not stop at description but analyses multimodal texts as playing a vital role in the production, reproduction and transformation of the social practices that constitute the society in which we live” (Caldas-Coulthard & Van Leeuwen, 2003, p. 3). Aiello (2020, p. 373) further highlights that social semiotics “sees meaning-making, or signification, as a process deeply embedded in existing cultural norms and shaped by social structures”.

Our approach is primarily informed by semiotic technology, which examines how new technologies change social practices. This semiotic subfield focuses on interdependences between the design and use of social media, emphasizing how social media provides users with pre-designed templates, filters, and designs for communicating and meaning-making (Poulsen et al., 2018). Semiotic technology investigates how assumptions and norms are inscribed in software and other kinds of technology, “how particular social media technologies restructure the activities and practices that make up social communication” (Poulsen et al., 2018, p. 594).

Changes in social media technology are interconnected with changes in identity and social status as shown by previously studies on how Power Point (templates) led to the marketization of discourse in education (Van Leeuwen et al., 2013), on the role of technology in the history of mathematics (O’Halloran, 2009), or on how Microsoft Word has contributed to how knowledge is expressed multimodally in education (Kvåle, 2016). Djonov and Van Leeuwen (2018) extended the social semiotic approach to understand how the social network site ResearchGate design constrains their users’ performance and transform their practices.

Finally, multimodal “texts” rely not only on language but also on images, composition, design and layout, typographic elements, and color (Van Leeuwen, 2005). O’Halloran (2011) pointed out that we need to consider all other semiotic resources apart from language such as print materials, videos, websites, three-dimensional objects, everyday events (semiotic/multisemiotic resources). Multimodal discourse analysis (MDA) “is concerned with theory and analysis of semiotic resources and the semantic expansions which occur as semiotic choices combine in multimodal phenomena”, as well as “with the design, production and distribution of multimodal resources in social settings” (O’Halloran, 2011, p. 2). This approach is well-suited for analyzing the semiotic resources utilized on a digital platform like TikTok, where meaning is constructed and communicated through a combination of modes – text, images, video, audio, and interactivity. A multimodal analysis allows a comprehensive understanding of how these elements work together to convey messages, influence audiences, and create meaning.

Several studies have already examined TikTok from a semiotic perspective, either by analyzing the content posted (Setyowati et al., 2024; Zappavigna & Logi, 2024) or by exploring identity construction on the platform (Darvin, 2022). Setyowati et al. (2024) applied Peirce’s semiotic model to investigate the “flexing” phenomenon on TikTok, examining how visual signs, such as gold jewelry and other luxury items, are used to signify wealth and social status. Zappavigna and Logi (2024) explored the intermodal relationships between emojis and language in the comments on a TikTok lip-sync homage to Julia Gillard’s misogyny speech from a social semiotic perspective. One of their key findings is “the degree to which the original TikTok video influences the choice and interpretation of emoji resources,” demonstrating the sensitivity of emojis to discourse context (Zappavigna & Logi, 2024, p. 18). Darvin’s (2022) analysis of how Hong Kong-based TikTok users develop resistance strategies to the “memetic” and “decontextualizing” logic of the Chinese application is particularly valuable for our own analysis. It demonstrates that TikTok’s design influences how user identities are constructed on the platform. Darvin (2022, p. 5) further remarks that “the creator profile page does not provide rich opportunities to highlight aspects of one’s identity, and instead foregrounds quantified descriptors that position users as productive content creators with varying potential for virality. The design of the newsfeed uses various semiotic cues to direct attention to the tools for meme production rather than those for social connections”.

Our analysis aims:

- to determine how Tik Tok ‘s digital infrastructure shapes the user’s and creator experience, with a focus on the semiotic resources provided through its interface;
- to explore the ways in which users and creators interact with the application;
- to identify the meanings generated by the platform’s design and semiotic resource choices;
- to analyze how TikTok and its use shape evolving social norms.

Our research addresses a critical gap in understanding how technological platforms like TikTok shape social digital practices, through a semiotic approach. By analyzing semiotic resources embedded in the platform’s digital infrastructure, this study examines how TikTok’s design and interface influence user interactions, construct meaning, and mediate communication. Furthermore, it explores how these elements collectively shape social norms, providing a comprehensive perspective on the platform’s role in transforming digital sociality. While previous social semiotics studies on TikTok have primarily focused on analyzing various types of content published on the platform from a multimodal perspective (Zappavigna & Loggi, 2024; Setyowati et al., 2024; Bezemer & Cowan, 2022; Wang & Feng, 2021) or on the impact of the platform’s design on identity construction (Darvin, 2022), our approach

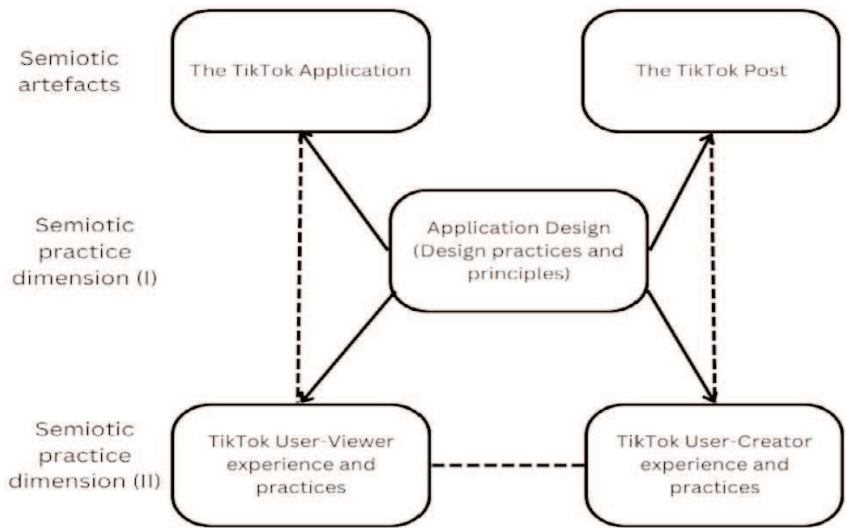
seeks to address the platform as a whole, particularly how it shapes user and creator experience and the processes of meaning-making.

3. Methodological design

For our analysis, we adopted a multimodal semiotic approach inspired by two previous models. Our first point of reference is Zhao et al. (2014)’s study of PowerPoint as a semiotic practice. The multimodal social semiotic approach to Power Point (Zhao et al., 2014, p. 355) identifies three semiotic practices (the software design, the slide show composition, and the presentation itself) and two semiotic artefacts (the Power Point Software and the PowerPoint).

In our case, we consider the TikTok application and the TikTok post (videoclip) as semiotic artefacts and focus our analysis on the application design and principles, mapping out the semiotic resources that shape the TikTok user-viewer experience and practices and, consequently, the TikTok user-creator experience and practices (Figure 1).

Figure 1. The TikTok analysis model inspired by Zhao et al. (2014) (graphic created by the author)



The second framework guiding our analysis draws on Poulsen and Kvåle (2018), who study social media as semiotic technology. Their approach considers the media and its multimodal dimension (also considered previously), alongside five elements: the historical, the critical, the material, the social and the practice dimension. These elements are illustrated in their work with examples from Instagram.

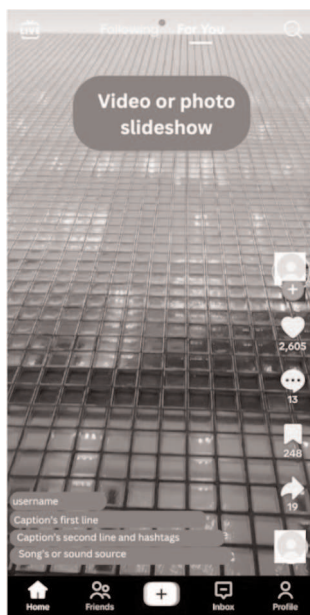
We also relied on the tradition of multimodal semiotics, which encompasses not only language but also other semiotic resources as videos, images, websites composition. Following Barthes (1977) and Joly (2015), we categorize these resources into three analytical levels: the linguistic message (denotational and connotational meaning), the iconic message (denotational and connotational meaning) and the plastic message (denotational and connotational meaning), focusing on the layout composition, the frame, and the colors.

4. Findings

4.1. TikTok app design: the user-viewer experience

Figure 2 below illustrates the TikTok homepage, where the user lands shortly after opening the app, following a two-seconds display of a black screen featuring with the Tik Tok logo. The app automatically opens on For You feed, which presents content curated by Tik Tok's algorithm rather than the users' personal network or accounts they follow.

Figure 2. The TikTok homepage design (screenshot taken on February 11, 2024, and adapted by the author).



4.1.1. The linguistic level

The linguistic elements are minimal, deliberately subordinated to prioritize video information which also serves as a wallpaper for most of the functions, except the five icons located on the black menu strip at the bottom. User-creator's name is placed at the bottom of the video and not at the top, like in other social media platforms like Facebook, Instagram or LinkedIn. The connotational meaning of this choice is that, on Tik Tok, the content is more important than the content's creator. The viewer will first acknowledge what is about, and only after (and if he/she looks after it), who the author is.

The main linguistic signifiers are “For You”, “Following” and “Live”, indicating the options the user must navigate through the application content: the algorithm's suggestions, the network of the accounts he/she is following and the alternative content of live sessions (apart from the posted TikToks). Live sessions are available only during broadcasting, they are not recorded for later viewing.

The label “For You” is a very powerful signifier for the flow managed by the TikTok algorithm. It suggests that this is a content especially conceived to respond to user's expecta-

tions and needs and underlines the idea of a personalized and individualized content: a “For You” feed is normally completely different from one user to another. On Facebook, there is no “For You” option, and the feed normally reflects the content of the pages users are following or the accounts they are connected with (plus targeted sponsored content). On Instagram, for example, the “For You” feed has a different meaning, showing in fact either user’s network, or their favorites (if they decided to set some), while the suggestions of the algorithm are disposed in the “Explore” menu. TikTok’s “For You” resembles the “For You” feed on X (former Twitter). The signified of the Tik Tok’s “For You” also suggests a patronizing approach of the app in relation with the user: Tik Tok appears to know better user’s needs when deciding the content is “For You”. The pronoun “You” is a powerful interpellation tool with a conative function (Jakobson, 1960), used to directly address and influence the receiver. By titling the main feed “For You,” the application directly addresses users, drawing them into participation and fostering a sense of direct engagement. It also creates a sense of familiarity, giving the impression that the application is addressing each user individually. Furthermore, on a linguistic level, we notice that the application limits the display on the TikTok’s caption to two lines (except from the sponsored content where 4 lines are displayed), requiring users to click “more” to read the extended text. However, most users tend to scroll past quickly, indicating that reading captions demands greater interest and time investment. These two lines often contain hashtags or tags if the creator decided to start the caption text with them. The text is displayed directly on the video to create a sense of integration within the narrative. A sans-serif font is used, reinforcing a clean and minimalist aesthetic. The small size and strategic placement ensure that the text does not overpower the video content, reflecting its secondary role in communication.

Like on no other social media platform, on TikTok there is no information about the publishing date. The connotational message of this absence is that, on TikTok, there is no content newsworthiness, the user is just encouraged to enjoy the experience.

Other linguistic elements on the homepage serve utilitarian purposes, such as caption translation or indicating the audio track used. Sounds link videos using the same audio and enable users to save or reuse sounds, facilitating a transition from viewer to creator and highlighting TikTok’s emphasis on content creation, even from the viewer’s perspective.

The bottom menu features dual signifiers, both linguistic and iconic: “home”, “friends”, “messages” and “profile” (see Figure 2). The “home” button has the technical function of “homepage” where the user lands when opening the application. If the user clicks on “home”, the feed will be renewed with different content, but it will still remain on the “For You” flow. Connotatively, equating “home” with the Tik Tok experience reinforces the proximity between the application and the user, comforted in the idea that they are welcomed in a familiar place where he/they are well-known (by the algorithms). The “Friends” button does not display a list of “friends” the user is connected to, unlike Facebook or Instagram, but opens a feed exclusively showing content posted by friends. This feed may resemble the “Following” feed if the user only follows friends but typically is narrower, as the “Following” feeds includes accounts the user follows without being friends with. By prioritizing content flow over friend lists, TikTok claims once again that the content is more important than the creator’s identity. The last two functions of the menu (Messages and Profile) are the only ones that encourage the user to leave the homepage and explore the content on other pages: Messages allows the user to see the messages received from friends, while Profile enables access to the user’s own profile including settings, the personal videos (if any), the TikToks saved

and TikToks liked. However, most functions are designed to keep users on the main page, supporting TikTok's goal of maximizing user retention.

The linguistic message is completed by several numerical data indicating the number of likes, the number of comments, the number of saved content and the number of times the content was forward. While comments are not displayed outright on the homepage, their quantity is shown, emphasizing popularity and engagement metrics over qualitative interaction. Users can view comments by clicking the icon, which overlays comments on the video without navigating away, maintaining immersion.

4.1.2. The iconic level

The video dominates the interface claiming to be the most important element for viewers. Following Poulsen and Kvåle's (2018) model, we analyzed icons on the homepage by their technical functions, semiotic representations, and connotations.

Several icons stand for connection (bubbles icon, arrow, people) or for popularity (hearts connected with numbers or flag connected with numbers) as we will explain in the following paragraphs. On the menu strip, we identified the semiotic representation of a house icon, the technical function of this icon being the choice of the landing homepage. As mentioned in the previous section (the linguistic level), there is a connotation of a familiar place associated with the application homepage.

The friends the user is connected to are represented with the icon of two people which metonymically stands for user's whole network. The technical function represented by this signifier is the flow of content produced by user's friends. The semiotic meaning is that of a network, the content produced by this network and the idea of being connected. This option, which allows users to view their friends' posts separately, is not available on Facebook or Instagram. On these platforms, content from friends is directly displayed in the main feed.

The "plus" icon is similar with the plus used to add content (which is the technical function) in other social media (Instagram, for example), but in this case it also reinforces Tik Tok brand identity because the plus contains the Tik Tok logo colors. Therefore, the technical function is to invite the user to become a creator, opening through this "plus" the options dedicated to creators. The semiotic meaning would be this identity created between the application and the technical action of making of videos.

The "bubble" icon appears twice on the home page with a slightly different graphic and with a different technical function: one is to signify messages received by the user from friends he is connected with (on the black menu strip), while the other one (placed on the right side, vertically) is to indicate messages received by the content showed on the homepage at that moment. Thus, the second function changes with each video displayed, while the first function is to update according to friend communications. These functions require user familiarity with social media conventions. The semiotic meaning of the bubble icon is interaction, network, both for the user's messages and for the content creator's messages.

The iconic semiotic representation for the user's profile is the person, a different choice if compared to the iconic representation of the profile on Instagram, Facebook or even X, where the round circle with the profile photo stands for the profile. On Tik Tok homepage, the circle icon with a photo profile stands only for the content's creator and song/sound author. It is to mention that, on the homepage, there are two different signifiers for the content's creator: one is linguistic on the bottom of the video, the other one is only iconic, on the right side of the video, on the same level with the reactions' icons, giving the user two chances to interact with

the creator (the semiotic meaning). However, as a viewer, one must look for the creator on the screen, they do not precede the content as in others social media feeds because on Tik Tok the creator of the content is less important than their content, as previously mentioned.

The semiotic representation of the heart icon stands for the technical function of likes (appreciations). The semiotic meaning is popularity and social connection. The semiotic representation of the function for saved actions is the flag icon. The semiotic meaning is popularity, success, and timeless value. The semiotic representation of the arrow has the technical function of “share” the content and the connotated semiotic meaning is availability and success. A second circle icon stands for the music/sound creator technical function. The semiotic meaning is that this one is put on the same level of importance as the creator. Another iconic signifier available on the homepage is that of a magnifier, indicating the technical function of search. The semiotic connotated meaning is availability and networking with other type of content.

All the icons displayed on the right side of the home page are not doubled by a linguistic signifier. Their meaning is determined by the user’s experience with other social media and is culturally constructed. For example, the heart icon may signify “love” in some contexts but here represents “likes” and popularity. The magnifier signifier is usually known as indicating the search function on web in general.

4.1.3. The plastic level

Our plastic-level analysis focuses on layout composition, framing, and colors.

Approximately 92,5% of the space on the homepage is devoted to the video, prioritizing content over interface elements. Except for the five menu icons on the bottom black strip, all signifiers overlay the video, which acts as the app’s visual background. At the top, the user has the option to choose between different flows of content (“For You” which is preset, “Following”, and “Live”) or to search something. At the bottom, the black strip displays the menu which is reduced to maximum to give space to the content. All the reaction buttons are placed on the right side of the screen (also ON the video), easy to access with the thumb, without need of supplementary effort or move. Reactions buttons are emphasized on the layout, and they are the most catching information when opening the app.

There is no frame like in other well-known social media applications where the post is integrated under the profile and there is a clear delimitation between one post and the next one. On Facebook, Instagram, or X, for example, when scrolling on the feed, the content is displayed under the profile (or page) that published that content. On TikTok, there is a continuous flow of videos, while the creator is only mentioned on the right side of the screen, in a small icon, or at the bottom of the video (and, also, this mention is placed on the video, as being part of it). Once more, these choices show that the creator is less important than the content.

When scrolling, the user only watches one video at a time: the application does not display two videos on the same screen (like on YouTube for example), nor a flow combining user’s identity, post, reactions, and comments, one after another (like on Facebook or X). This no-frame logic has been reproduced by other social media in specific flows as Reels on Instagram or YouTube Shorts.

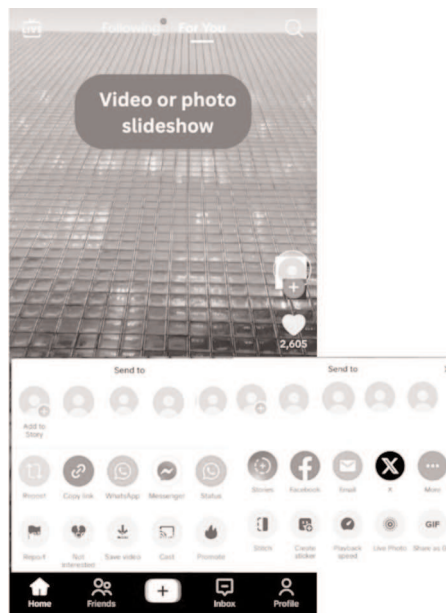
The layout, the repartition of different signifiers on the screen, and the no-frame logic for the videos flow, encourage the vertical succession of videos and retain the user to continue exploring videos. We believe that this layout and these technological choices can explain the addiction that several studies have observed (Petrillo, 2021; Yang, 2020).

The only color of the layout itself is the black strip (non-color/neutral) and the “plus” sign combining the same colors as in the TikTok logo, functioning as brand identity. Colors are reduced to maximum to give prominence to the content which must be the most important on the screen.

4.1.4. *The interactivity*

Beyond visual and linguistic elements, TikTok’s inter-connectivity is a key strength, offering numerous content exploration options accessible from the homepage with a single click.

Figure 3. The TikTok application share options (screenshot taken on February 11, 2024, and adapted by the author).



When a TikTok video is displayed, users have the option to access the creator’s profile via linguistic or iconic signifiers. Furthermore, users can click to see other users’ comments or other videos with the same hashtags. If there is a tag on the TikTok, it allows users to link to the tagged profile and its content. Using the magnifier icon, users can search with keywords across top results, videos, users, sounds, live and hashtags. The semiotic meaning of this abundance of options is that of countless options of networking and exploring inside the app.

The richest interactivity resource opens from the arrow icon (Figure 3) which enables users to either repost the content, share it in messages to friends, copy the link or directly share it in Instagram stories, Instagram Direct, Facebook Messenger, WhatsApp, SMS, Instagram feed, Facebook feed, e-mail, X or more, depending on device connectivity. All these sharing options are displayed directly from the arrow icon and are more complex than those of other similar social media. If, at the first level, the content can be shared with friends, at the second level users can choose between different other social media, while on the third line of the same arrow, different actions are available either to react to the content (“report”, “not interested”, “save”) or to remix the TikTok displayed and create a new one: duet, stitch, sticker, live photo, share as gif, etc. All these options are once again displayed without leaving the

homepage, while keeping the content as a background. The semiotic meaning of the many possibilities of sharing content from TikTok to other social media is that the content can be valuable on other platforms and sharing is encouraged by being simple and easy to access. Spreading the platform's content is easier than on other social media.

Compared to Instagram and YouTube, TikTok's homepage lacks framing around content, presents less prominent creator names, offers more sharing options, and generally provides greater connectivity.

4.2. TikTok app design: the user-creator experience

We argue that the user-viewer experience on TikTok must be completed by the user-creator experience because, in this case, there are different available resources on the application.

The primary entry point for creators is the plus (“+”) icon centrally located in the menu, on the homepage, which invites users to add (create and post) content on the application. The technical function of the “plus” is the creation of the TikTok content while the semiotic meaning is the enrichment of the social platform with new content, the “plus value” a creator can add to TikTok.

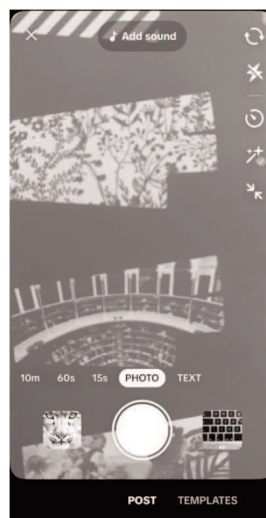
Apart from this main interface designed for creators, which we explain in more details below, some other buttons encourage user's creativity and posting from the share function (re-post, duet and stitch), but also from the song/sound icon creators can reuse to propose their own content. Re-using other creators' content is encouraged and facilitated by these functions suggesting a “bricolage”, one of the main characteristics of the digital culture (Deuze, 2006).

4.2.1. The linguistic level

The creator's main interface is simple, featuring a limited set of linguistic and iconic signifiers (Figure 4).

At the linguistic level, there are indications for the functions allowing to add different types of content (the same paradigm): “photo”, “text”, “10m”, “60s” and “15s”.

Figure 4. The TikTok content creator's interface (screenshot taken on February 11, 2024, and adapted by the author).



The duration of the video stands to identify the video itself. The semiotic meaning is that creators have the choice between these formats they can propose to the viewers. They are also invited to make a choice and predetermine the format.

Furthermore, three more words indicate different technical functions: “effects”, “upload” and “add music”. The first opens a large library of effects arranged thematically from “saved”, “trending” to “new”, “appearance”, etc. and exemplified exclusively by icons. Apart from the technical function, the meaning is that this kind of editing is available to creators. The “upload” has the technical function of allowing to use previous photo or video from user’s smartphone, interrelating the applications with the user’s library. The “add music” indicates the technical function of using this kind of media on the created content and opens a library thematically organized in “For you”, “Favorites”, “More”, “Your sounds”, but also in playlists and allowing the search. The semiotic meaning is that the TikTok’s creator can choose this kind of content and, secondly, that the application offers this kind of library.

4.2.2. *The iconic level*

The dominant iconic signifier is the recorder button which allows users to take photo or record videos, according to the format they selected.

Depending on the format choice (text, photo, or video), the recorder button must be linked with the range of iconic signifiers on the top of the page. For the photo, these signifiers allow to switch between the front and main camera or to record with both cameras. The two other iconic signifiers – the two arrows and the magic wand stand for the technical function of re-sizing photo and for the automated filter designed to improve the image (“beauty mode on”). The semiotic meaning is that these tools empower creators to control and enhance their content.

When recording a video, some supplementary icons appear: the flash icon having the technical function of adapting the light on the video, the clock icon allowing to start a countdown, the triple circle to open filter editing (similar to the Instagram icon for filter), the speed counter icon which allows to set the speed of the recording and the magic wand opening this time a list of visual effects. The semiotic meaning of these buttons is that the creator can master its content and has a diversity of options to improve it.

4.2.3. *The plastic level*

The record button is visually enlarged to attract creators and encourage action. This choice means that this icon and its function are central to creator experience. The record/camera button is flanked by buttons with dual signifiers (iconic and linguistic) for effects and upload, reflecting their importance and functional relationship to recording. The upload is an alternative function for recording which explains its placement next to the camera/recording button. The effects button placed near the recording/camera button shows the importance given in this app to this specific function. All the signifiers standing for the content format are placed on the same horizontal level signaling to users that they have these choices. The meaning is that these signifiers are all part of the same paradigm (the format paradigm).

Signifiers for camera-related options are vertically stacked on the right, emphasizing their influence on photo/video capture. The “add sound” button is positioned top-center. The layout is clean and simple, using two main lines of functions (horizontal and vertical) and allowing the video/photo to dominate once again the display from the top to the bottom, giving it prominence compared to other signifiers. All signifiers are displayed in the white neutral colors that do not interfere with the visual content, allowing creators to focus on their media.

4.3. The practice, social, material, and historical dimensions

When analyzing the practice dimension, we notice that Tik Tok has revolutionized video creation on/ for social media. The application offered new possibilities to remix other users' images and sounds with several original features like duetting and stitching. The impact was so important that the short videoclip published on TikTok is named „TikTok“ and some other social media immediately introduce similar design options as reels on Instagram or shorts on YouTube. User-Generated Content (UGC) was used to explain how Web 2.0, and social media, in particular, transformed every user into a content producer (Bruns, 2008). While many platforms promote a “participatory culture” (Jenkins, 2009), TikTok stands out for its emphasis on content reuse. Users follow “trends” (created by others), post lip-sync videos, dances, or challenges (initiated by other users), and create their own TikToks by stitching or duetting with other users' content, among other practices. The logic behind this is to recycle content, allowing it to gain momentum and spread like a snowball across the platform.

When exploring its social dimension, we acknowledge that TikTok provides an extended palette of resources for interpersonal meaning-making: users have different ways to express and many means to connect with other users and content of interest. The application is particularly popular among Millennial and Gen Z users worldwide: the majority content creators on TikTok are, at a global level, aged 18 – 24 (Ceci, 2024) and the average TikTok time has increased by 3 hours and 46 minutes per user, per month (+12% comparing to 2022). Ceci (2025) highlights that between 2021 and 2022, several major social media platforms introduced short-video features in response to TikTok's growing influence, including YouTube Shorts and Instagram Reels.

As for the material dimension, TikTok is a specific mobile application dedicated to individual use on smartphone. It is also available on desktop, but the user can experience all its functions on smartphone.

The historical dimension must consider that TikTok is a video-sharing social media app launched on the international market in 2017 by a Beijing-based tech company ByteDance (Werner, 2024), which is behind the release of several other popular apps. In 2023, TikTok faced a partial ban on institutional and governmental devices in several countries: the European Commission, the Council of the EU, the European Parliament have banned staff from using the Chinese social media app TikTok over security concerns (Bertuzzi, 2023). The United States and Canada also banned TikTok on government-issued mobile devices amid growing privacy and cybersecurity concerns (CBS, 2023). In March 2023 Tik Tok announced changes to help teens manage their time on TikTok to respond critics about addictive use of the app (Keenan, 2023). In December 2024, Romania's Constitutional Court annulled the result of the first round of voting in that year's presidential election following allegations that one of the candidates benefited from a TikTok campaign orchestrated by Russia (Politico, 2024). Although TikTok (2025) does not allow “political content to feature in advertising,” during the 2024 Romanian presidential campaign, it was possible to post paid content on some TikTok influencers' accounts, reusing key phrases from one of the candidates' campaign as part of an influencer marketing strategy hijacked for political purposes. When analyzing the social and historical dimensions of TikTok, a significant challenge arises due to the fast-moving nature of the platform, which is frequently at the center of public debates. For example, in March 2025, TikTok was banned in Albania amid concerns that it encourages violence among young people (Reuters, 2025). The critical dimension must consider the Tik-Tok application is taking one step forward for considering the author less important than

content: scrolling on content is more important than watching content produced by friends as the landing page of the application opens on the “For You” feed. Users start to consider the normality to scroll from one videoclip to other without anything to interfere in between which contributes to the addiction theory.

5. Discussion and conclusions

The semiotic analysis of the Tik Tok application reveals that linguistic resources are deliberately minimized to prioritize visual elements. The user experience is dominated by a continuous scrolling motion, presenting TikToks in rapid succession, much like an endless movie. This design fosters prolonged engagement by discouraging breaks and encouraging extended time spent on the platform.

The layout of the platform is designed to encourage the vertical succession of videos and to retain users in a state of ongoing exploration. While watching a video, all necessary functions are integrated directly onto the full-screen image, conveying the impression that nothing lies beyond the video itself. The absence of frames or boundaries reinforces the meaning that the video content is the sole focus and central element of the experience.

There are a lot of options to explore different contents inside the app, all accessible from the main page, with a single click, without having to access a different page. The application facilitates extensive interconnectivity with other online platforms (both private and public, via feeds or messages) signaling that TikTok content is sufficiently valuable to be effortlessly disseminated worldwide.

Tik Tok’s interface meaningfully combines verbal, visual and auditory semiotic resources. When experiencing TikTok, users select what they view and in what order. They may choose one of the flows (Live, Following or For You), the TikToks they received in their private messages, or they may search for specific content. They may also explore videos linked by hashtags, sounds, or creators, read comments, or share content across social media. All these different options are displayed on the TikTok video which becomes the main background for the whole experience. This choice emphasizes the importance of the content. While users have freedom to construct their own navigational paths, the platform’s design strategically encourages prolonged engagement. Our findings align with Darvin’s (2022) observation that TikTok does not encourage users to highlight their identity but instead positions them primarily as content creators. As Darvin (2022, p. 10) notes, “the newsfeed uses various semiotic cues to direct attention to the tools for meme production rather than those for social connections”.

Our semiotic analysis of TikTok highlights the deliberate design choices that prioritize visual engagement and seamless interaction. By minimizing linguistic elements and focusing on immersive video content, the application fosters a continuous scrolling experience akin to an endless movie, compelling users to spend extended periods on the platform. The lack of frames or delimiters further immerses users in a self-contained digital environment. Nevertheless, Darvin’s (2022) study offers a hopeful perspective, demonstrating how users can negotiate and resist the platform’s sociotechnical constraints to pursue their own goals. TikTok’s addictive potential arises not solely from its algorithm, but also from the application’s layout which profoundly impacts the user experience.

Building on a social semiotic approach inspired by Zhao et al. (2014) and Van Leeuwen et al. (2013), who analyzed how PowerPoint shaped the marketization of education, this ar-

ticle contributes to understanding TikTok's role in shaping digital behaviors. By focusing on the semiotic resources embedded in TikTok's design and layout, the research highlights how these features influence user retention and underpin the platform's addictive nature.

References

- Adami, E. (2018). Styling the self online: semiotic technologization in weblog publishing. In *Social Semiotics*, 28 (5), 601-622. <https://doi.org/10.1080/10350330.2018.1504713>
- Aiello, G. (2020). Visual semiotics: Key concepts and new directions. In L. Pauwels & D. Mannay (Eds), *The SAGE handbook of visual research methods*, (pp. 367-380). Sage Publications.
- Barta, K., Andalibi, N. (2021). Constructing Authenticity on TikTok: Social Norms and Social Support on the „Fun“ Platform. *Proceedings of the ACM on Human-Computer Interaction*, 5 (2), 1-29. <https://doi.org/10.1145/3479574>
- Barthes, R. (1977). Rhetoric of the Image. In S. Heath (ed), *Image, Music, Text*, (pp. 32-51). Hill and Wang.
- Berlanga-Fernández, I., Reyes, E. (2024). The digital approach to semiotics: systematic review. In *Text & Talk*, 44 (1), 119-140. <https://doi.org/10.1515/text-2021-0073>.
- Bertuzzi, L. (2023). *European Commission bans TikTok from corporate devices*. Euractiv. <https://www.euractiv.com/section/cybersecurity/news/european-commission-bans-tiktok-from-corporate-devices/>
- Bezemer, J., & Cowan, K. (2022). Exploring reading in social semiotics: Theory and methods. In *Reading* (pp. 107-118). Routledge.
- Bhandari, A., & Bimo, S. (2022). Why's Everyone on TikTok Now? The Algorithmized Self and the Future of Self-Making on Social Media. *Social Media + Society*, 8(1). <https://doi.org/10.1177/20563051221086241>
- Bottini, T., & Julliard, V. (2017). Entre informatique et sémiotique: Les conditions techno-méthodologiques d'une analyse de controverse sur Twitter. [Between informatics and semiotics: the techno-methodological conditions of analysing a controversy on Twitter]. *Réseaux*, 4, 35-69. <https://doi.org/10.3917/res.204.0033>
- Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and beyond: From production to produsage* (Vol. 45). Peter Lang.
- Caldas-Coulthard, C. R., & Van Leeuwen, T. (2003). Critical social semiotics introduction. *Social Semiotics*, 13(1), 3-4. <https://doi.org/10.1080/1035033032000133481>
- Canizzaro, S. (2016). Internet memes as internet signs: A semiotic view of digital culture. *Sign Systems Studies*, 44(4), 562-586. <http://dx.doi.org/10.12697/SSS.2016.44.4.05>
- CBS. (2023). *TikTok banned on U.S. government devices, and U.S. is not alone. Here's where the app is restricted*. <https://www.cbsnews.com/news/tiktok-banned-us-government-where-else-around-the-world/>
- Ceci, L. (2024). *TikTok – Statistics and Facts*. Statista. <https://www.statista.com/topics/6077/tiktok/#topicOverview>
- Ceci, L. (2025). *Countries with the most TikTok users 2025*. <https://www.statista.com/statistics/1299807/number-of-monthly-unique-tiktok-users/>
- Danesi, M. (2017). *The Semiotics of Emoji: The Rise of Visual Language in the age of the Internet*. London: Bloomsbury Publishing. <https://doi.org/10.5040/9781474282024>
- Darvin, R. (2022). Design, resistance and the performance of identity on TikTok. *Discourse, Context & Media*, 46, 1-11. <https://doi.org/10.1016/j.dcm.2022.100591>
- Deuze, M. (2006). Participation, Remediation, Bricolage: Considering Principal Components of a Digital Culture. *The Information Society*, 22(2), 63-75. <https://doi.org/10.1080/01972240600567170>
- Dixon, J. L. (2024). *Most used social networks 2024, by number of users*. Statista. <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>
- Djonov, E., Van Leeuwen, T. (2018). Social media as semiotic technology and social practice: the case of ResearchGate's design and its potential to transform social practice. *Social Semiotics*, 28(5), 641-664. <https://doi.org/10.1080/10350330.2018.1504715>
- European Commission. (April 22, 2024). Commission opens proceedings against TikTok under the DSA regarding the launch of TikTok Lite in France and Spain, and communicates its intention to suspend the reward programme in the EU. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_2227

- Galinon-Méléneć, B., & Monseigne, A. (2011). La sémiotique des « signes-traces » appliquée au recrutement: le cas de la recherche du « bon candidat » via les traces numériques [The signs-trace semiotics applied in recruitment: the study case of looking for the “right candidate” via his digital traces]. *Communication & organisation*, 39(1), 89-113. <https://doi.org/10.4000/communicationorganisation.3095>
- Jenkins, H. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. The MIT Press.
- Jakobson, R. (1960). Closing statement: Linguistics and poetics. *Style in language*, 350(377), 570-579.
- Jewitt, C., & Henriksen, B. (2016). Social Semiotic Multimodality. In N.-M. Klug & Stöckl, *Handbuch Sprache im multimodalen Kontext*, (pp.145-164). De Gruyter. <https://doi.org/10.1515/9783110296099-007>
- Joly, M. (2015). *Introduction à l'analyse de l'image*. Armand Colin.
- Keenan, C. (2023). New features for teens and family on TikTok. TikTok. <https://newsroom.tiktok.com/en-us/new-features-for-teens-and-families-on-tiktok-us>
- Kvåle, G. (2016). Software as Ideology. A Multimodal Critical Discourse Analysis of Microsoft Word and SmartArt. *Journal of Language and Politics*, 15(3), 259-273. <https://doi.org/10.1075/jlp.15.3.02kva>
- Logi, L., & Zappavigna, M. (2021). A social semiotic perspective on emoji: How emoji and language interact to make meaning in digital messages. *New Media & Society*, 25(12): 3222-3246. <https://doi.org/10.1177/14614448211032965>
- O'Halloran, K. L. (2009). Historical Changes in the Semiotic Landscape. In J. Carey (ed.), *The Routledge Handbook of Multimodal Analysis*, 2nd ed., (pp. 98-113). Routledge.
- O'Halloran, K. L. (2011). Multimodal discourse analysis. In K. Hyland & F. Hyland (eds), *Companion to Discourse*, (pp. 120-137). Continuum.
- Petrillo, S. (2021). What Makes TikTok so Addictive?: An Analysis of the Mechanisms Underlying the World's Latest Social Media Craze. *Brown Undergraduate Journal of Public Health*. <https://sites.brown.edu/publichealthjournal/2021/12/13/tiktok/>
- Politico. (2024). *Romania court cancels presidential election amid Russian influence fears*. <https://www.politico.eu/article/Romania-court-cancels-presidential-election-runoff-tiktok-russian-influence-calin-georgescu/>
- Poulsen, S., & Kvåle, G. (2018). Studying social media as semiotic technology: a social semiotic multimodal framework. *Social semiotics*, 28 (5), 700-717. <https://doi.org/10.1080/10350330.2018.1505689>
- Poulsen, S. V., Kvåle, G., van Leeuwen, T. (2018). Social media as semiotic technology. Introduction. *Social Semiotics*, 28 (5), 593-600. <https://doi.org/10.1080/10350330.2018.1509815>
- Reuters. (March 13, 2025). *Albania starts turning off TikTok amid concern over youth violence*. <https://www.reuters.com/technology/albania-starts-turning-off-tiktok-amid-concern-over-youth-violence-2025-03-13>
- Setyowati, R., Setiawati, B., & Wardhani, E. M. (2024). The Semiotics of Gold Flexing on Social Media: A Peircean Analysis of TikTok. In 2024: *Proceeding of the 5th International Conference Health, Science And Technology (ICOHETECH)*, (576-594). <https://doi.org/10.47701/icohetech.v5i1.4251>
- Taylor, S. H., & Chen, Y. A. (2024). The lonely algorithm problem: the relationship between algorithmic personalization and social connectedness on TikTok. *Journal of Computer-Mediated Communication*, 29(5). <https://doi.org/10.1093/jcmc/zmae017>
- TikTok. (February, 2025). *Politics, Culture, and Religion*. <https://ads.tiktok.com/help/article/tiktok-ads-policy-politics-religion-and-culture>
- Van Leeuwen, T. (2005). *Introducing Social Semiotics*. Routledge.
- Van Leeuwen, T, Djonov, E., & O'Halloran, K. L. (2013). David Byrne Really Does Love PowerPoint': Art as Research on Semiotics and Semiotic Technology. *Social Semiotics*, 23 (3), 409-423. <https://doi.org/10.1080/10350330.2012.738998>
- Wang, X., & Guo, Y. (2023). Motivations on TikTok addiction: The moderating role of algorithm awareness on young people. *Profesional de la información*, 32(4). <https://doi.org/10.3145/epi.2023.jul.11>
- Wang, Y., & Feng, D. (William). (2021). History, modernity, and city branding in China: a multimodal critical discourse analysis of Xi'an's promotional videos on social media. *Social Semiotics*, 33(2), 402-425. <https://doi.org/10.1080/10350330.2020.1870405>
- Werner, G. (January 2024). *What is TikTok? Everything you need to know in 2024*. Influencer Marketing Hub. <https://influencermarketinghub.com/what-is-tiktok/>

- Wiggins, B. E. (2019). *The discursive power of memes in digital culture. Ideology, semiotics, and intertextuality*. Routledge.
- Yang, Y. (2020). Understanding Young Adults' TikTok Usage: Real People, Creative Videos that makes your day. *Undergraduate Honors Thesis, Department of Communication, University of California San Diego*. https://communication.ucsd.edu/_files/undergrad/yang-yuxin-understanding-young-adults-tiktok-usage.pdf
- Zappavigna, M., & Logi, L. (2024). How emoji make meaning and enact ambient affiliation: a social semiotic account of emoji-text relations in TikTok comments. *Social Semiotics*, 1–21. <https://doi.org/10.1080/10350330.2024.2389520>
- Zhao, S., Djonov, E., & van Leeuwen, T. (2014). Semiotic Technology and Practice: A Multimodal Social Semiotic Approach to PowerPoint. *Text and Talk* 34(3), 349–375. <https://doi.org/10.1515/text-2014-0005>
- Zhao, S., & Zappavigna, M. (2017). Beyond the self: Intersubjectivity and the social semiotic interpretation of the selfie. *New Media & Society*, 20(5), 1735-1754. <https://doi.org/10.1177/1461444817706074>
- Zhao, S., & Zappavigna, M. (2018). The interplay of (semiotic) technologies and genre: the case of the selfie. *Social Semiotics*, 28(5), 665-682. <https://doi.org/10.1080/10350330.2018.1504724>