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YUGOWAVE AND SERBWAVE ON YOUTUBE: AUDIENCE ANALYSIS BY COMMUNITY DETECTION

ABSTRACT

The article examines the phenomenon of Yugowave, including its offshoots, on the YouTube platform. As an online audiovisual genre, which originated from vaporwave and eventually developed independently, it serves as a remediation of collective memory, featuring nostalgic references to the era of the Socialist Federal Republic of Yugoslavia, or the war conflicts that followed its dissolution. Drawing on data from 426 videos and 14,344 comments, we examine the genre's evolution and map audience communities using the Leiden method on a bipartite network linking commenters to their public YouTube subscriptions. The analysis suggests that the war aesthetics of Serbwave prevail among the videos and its commenters may be described as a wide international audience, predominately holding interests in history, militarism and gaming.

KEY WORDS: vaporwave, Yugowave, Serbwave, YouTube, community detection

Yugowave in Serbwave na YouTubeu: analiza občinstva z metodo detektiranja skupnosti

IZVLEČEK

Članek obravnava pojav Yugowava, vključno z derivati, na spletni platformi YouTube. Z uporabo nostalgičnih referenc na obdobje Socialistične federativne republike Jugoslavije ali na vojne konflikte, ki so sledili njenemu razpadu, ta spletni avdiovizualni žanr, ki izvira iz vaporwava in se je sčasoma razvil po svoje, izvaja remediacijo kolektivnega spomina. Na podlagi podatkov iz 426 videoposnetkov in 14.344 komentarjev preučujemo razvoj žanra

ter mapiramo skupnosti gledalcev z uporabo metode Leiden na bipartitem omrežju, ki povezuje komentatorje z njihovimi javno dostopnimi naročninami na YouTube kanale. Analiza kaže, da med videoposnetki prevladuje žanr vojne estetike Serbwave, komentatorji pa predstavljajo internacionalno občinstvo s prevladujočimi preferencami za zgodovino, militarizem in igričarstvo.

KLJUČNE BESEDE: vaporwave, Yugowave, Serbwave, YouTube, detekcija skupnosti

1 Introduction¹

Regarded as “the first musical genre born and raised on the internet” (Tanni 2024: 20), vaporwave emerged in the early 2010s on platforms such as Bandcamp, SoundCloud, Tumblr, the now-defunct Turntable.fm and Reddit. The genre is primarily characterized by plunderphonic² sampling, looping, pitch-shifting and slowing down of easy-listening music, cheesy pop licks, smooth jazz, soft rock, muzak, corporate mood music, advertising jingles and other sonic material from the consumer- and corporate cultures of the 1980s and 1990s. The heavily manipulated audio layers are accompanied by a strong visual collage that includes elements like early web design, Windows 95 icons, brand logos, imagery of empty shopping malls, cityscape photography, images of commercial computers and consumer electronics, classical sculptures, Japanese lettering, glitch art and vibrant neon colours, particularly purple hues (Aesthetics Fandom 2025a). Notable are also the names of the songs and artists (of whom many work anonymously or use multiple pseudonyms), such as Laserdisc Vision, New Dreams Ltd., INTERNET CLUB, Prismcorp, 情報 デスク VIRTUAL, or Macintosh Plus, strongly resembling “various brands of techno-corporate exoticism that play off tropes of hi-tech orientalism” (McLeod 2018: 132).

These distinctive audiovisual combinations generating a “weirdly nostalgic, experimental dreamscapes” (THE WEIRDNET 2018) have granted vaporwave not only a large online following, but also a prominent role in debates about the haunting persistence of the past in Western popular culture in the age of intensified technocapitalism (Tanner 2016; Koc 2017; Glitsos 2018; Álvarez 2024).

1. The research included in the article was supported by the ARIS project “Mnemonic Aesthetics and Strategies in Popular Culture: Murals, Film, and Popular Music as Memory Work” (J7-50215) and by the ARIS research and infrastructure programme “The Production of Meaning and Knowledge in a Time of Crisis: Cultural, Religious and Scientific-Developmental Aspects of Societies in Slovenia, the Balkans, and Europe”.
2. Plunderphonics is a music production technique that typically utilizes only sampled sounds. The term was coined by composer John Oswald (Oswald 1985).

Vaporwave quickly fragmented into various micro-genres and niche trends, including future funk, mallsoft, slushwave, hardvapour, signalwave, vapornoise and barber beats, to name just a few. Merging into the continuous flow of user-generated online content, it has transformed into a meme, became entangled in the online culture- and identity wars and with Sovietwave and Yugowave extended beyond its original Western pop-cultural horizon and capitalistic consumer culture.

The case of Yugowave is distinctive. If, according to the much-established interpretation, vaporwave evokes a collective trauma stemming from the post-modern evaporation of history (Koc 2017; Glitsos 2018) or *the slow cancellation of the future* by technocapitalism (Berardi 2011; Fisher 2014), the trauma reflected by Yugowave differs markedly from its Western counterpart. Whereas vaporwave draws on the sonic ghosts of consumer- and corporate culture in the 1980s and 1990s, Yugowave foregrounds the sonic and visual phantoms that haunt the violent collapse of the Socialist Federal Republic of Yugoslavia (SFRY) and its aftermath. This is most evident in Yugowave's offshoot Serbwave, whose main source materials are Serbian war music and the archival footage from Yugoslav wars in the 1990s.

In the only in-depth analysis published to date, Jukić exposes several case studies of the post-Yugoslav appropriation of vaporwave aesthetic principles and argues that Yugowave should be seen as a particularly ambivalent and conflicting form of Yugonostalgia, remediated through the means – or memes – of the vernacular online cultural production. Despite the first productions emerging in 2014, Jukić also observes that at the time of her analysis, Yugowave was “still in its infancy” (2019: 59) and lacked the established “community”³ found in related vaporwave genres. These observations raise questions not only about subsequent development of Yugowave as an online micro-genre, especially given that other online trends such as the multiplication of core aesthetic and brainrot have since become dominant, but also about the audiences that engage with this niche, politically charged aesthetical and mnemonic phenomenon. The last question holds particular importance. The debates about vaporwave are predominantly centered on its form. Consequently, there is a noticeable gap of empirically oriented research, particularly a lack of analyses of its online audiences and its reception. This gap is even greater with its locally specific mutations such as Yugowave.

3. Jukić's use of community should not be confused with the one used in this article. Jukić is talking about communicative associations of users while we use the concept of community as a result of network analysis with which we interpret the traits of its nodes.

In this article, we address this shortcoming with a comprehensive analysis of Yugowave audiovisual material on YouTube and the audiences that actively engaged with it on this main platform for the distribution and consumption of post-Yugoslav vaporwave-inspired aesthetics. Based on the importance that the function of commenting has on YouTube platform, it is epistemologically plausible and pragmatic to identify the audience that actively engages (positively or negatively) with Yugowave and its offshoots with the commenters. Of course, this definition is also influenced and severely limited by the fact that we cannot access the data to identify the viewers or the likers. However, with the commenters' platform identity being public, it is possible to get an insight into the aspects of their cultural preferences such as their subscriptions to YouTube channels.

Drawing on YouTube data from a manually compiled corpus of 433 Yugowave-tagged or aesthetically related videos, together with the associated commenters' data, such as their subscriptions, the aim of the article is (1) to describe the scope and the evolution of the self-labelled Yugowave⁴ content on the platform; and (2) to identify its audience. Our research questions are as follows: (1) Which type of Yugowave and related content can we identify on YouTube?; and (2) What distinct communities can be identified among Yugowave YouTube commenters based on their shared channel-subscription patterns as indicators of their taste preferences, or in other words, which taste communities does the audience of Yugowave videos within the YouTube sphere belong to? To effectively address this last question, we will create a bipartite graph of commenters' co-subscriptions and then apply a community detection algorithm to identify various clusters within Yugowave commenters. This will enable us to infer some key characteristics about Yugowave's YouTube audience.

2 Vaporwave or an introduction into a time when even nostalgia is not what it used to be

Vaporwave captured the cultural zeitgeist of the early 21st century. Its rise coincided with the retro appeal that swept through the popular music industry (Reynolds 2010) and the emergence of new electronic music sub-genres like hypnagogic pop, hauntology, chillwave and witch house. While all these genres explicitly engage with themes of the past, memory, nostalgia and melancholy, vaporwave has become the most prolific and gained wider cultural relevance.

4. We treat the label "Yugowave" as a seed term – an umbrella term for a heterogeneous network of aesthetically related content that seeks to remediate and reconstruct memories of Yugoslavia, including the wars in the 1990s.

The appeal of the genre stems from a distinguished mixture of collective nostalgia, mediated memory of the first internet generations, critique of consumerism and post-irony, all processed through time-axis manipulation techniques⁵ in affordable digital audio workstations and distributed on web platforms.

Although slowed-down earworm tunes of corporate and commercial soundscapes from the late 20th century play on the semantic ambiguity, "its main unifying ideology appears to be a simultaneous critique and parody of consumerism and corporate culture" (McLeod 2018: 124). Eventually, this has positioned the phenomenon at the forefront of discussions about cultural production and imagination in contemporary capitalism. In his influential essay from 2012, Harper framed the narrative when he posed the question whether the genre critiques or celebrates capitalism and answered: "Both and neither. These musicians can be read as sarcastic anti-capitalists revealing the lies and slippages of modern techno-culture and its representations, or as its willing facilitators, shivering with delight upon each new wave of delicious sound" (Harper 2012). Thus, the genre is both ironic and sincere, offering both: a new critique of capitalist culture (always a valuable position on cultural markets) and a genuine affection for its fetish objects. Furthermore, Harper suggests that vaporwave challenges the outdated distinction between capitalistic and anti-capitalistic cultural imagination. He categorizes it as a form of accelerationist pop, drawing inspiration from the core principles of accelerationist theory, which posits that capitalism is a system of positive feedback loops that exist beyond human control. According to this view, the most progressive approach is to accelerate and exploit capitalistic processes rather than merely protest against them with traditional left-wing theoretical, political or cultural methods (Mackay and Avanessian 2014).

On the other hand, vaporwave accelerationist ethos has been interpreted along the more traditional theoretical lines. Based on Jameson's theory of postmodernism, Koc argues that the sampled material evokes a time "before postmodernity's final fracture from history through digital technology" (Koc 2017: 69). With the integration of human culture into the internet, cultural history has been absorbed into digital databases and is now retrievable through computer algorithms via searching or personalized recommendations. In his seminal study

5. The concept of time-axis manipulation refers to the fundamental ability of technical media to capture, store, reproduce and alter temporal sequences, fundamentally changing human perception and experience of time, history and memory (see Kittler and Winthrop-Young 2017; for a discussion about time-axis manipulation in vaporwave, see Tanner 2016).

of otaku fan cultures, Azuma suggested that we are transforming into beings who primarily consume databases, moving away from the narrative or worldview-driven consumption that characterized the past (Azuma 2009). The past is used as a database, and the cultural time or historical consciousness itself has become a vector in the database. This shift sometimes produces glitches in the formation of collective memory, revealing that even nostalgia is no longer what it used to be (Álvarez 2024).

The continuous looping of audiovisual fragments from late-20th-century consumer culture could also be seen as a reflection on and of the human culture's inability to keep up with the technological intensification of capitalistic processes of abstraction and alienation or the decoding of social reality. As the genre's name suggests, every cultural product, style or practice – much like any consumer object or commodity – is already considered obsolete at the moment it appears.⁶ It's not that *the future*, as defined by corporate and commercial narratives, is always already a false promise, but – to use Fisher's (debatable) reflections about the growing inability to create anything new in the 21st century – that the future, in terms of a large transformative potential or creating something with a future shock, has been largely disposed of, monopolized, pre-empted and slowly cancelled by the impersonal and inhuman movement of the capital. As a result, the future now persists like a ghost (Fisher 2014: 31). Hence, the proliferation of repetitiveness, melancholy, depression and hauntology in the (early) 21st century popular culture, acting as a sign of collective exhaustion.

However, vaporwave is not just a post-ironic pop-culture nostalgia music genre, with distinctive visuals and particular appeal to the millennial audiences. In a follow-up essay, Harper (2013) expressed concern that the genre is becoming formulaic, overlooking the fact that vaporwave is not a traditional music genre. Its formulaic or memetic dispositions are characteristic of an internet genre. As Beguš emphasizes, with its constant hybridization, disinterested irony and an (non-ideological) emphasis on creating a mood, vaporwave could be seen as a

6. One interpretation connects the term vaporwave with the word vaporware that refers to hardware or software products that are advertised by manufacturers with no intention to actually release them. As a concept, vaporware has also come to denote 'the cancellation of the future': a promised future technology that does not materialize. Today, or at least for the past 10 years, vaporware is characterized by highly valued companies that do not make profits but operate through speculation and anticipation of fulfilling them in the future. Vaporware is therefore the inherent disappointment that there will be no promised future. Perhaps the most well-known contemporary example is the computer game *Grand Theft Auto VI*, which the Rockstar Games has been announcing since 2014. This frustrated anticipation was itself memefied into a template for tracking other events of the promised future (KnowYourMeme 2025).

prime example of a genre within a technologically changed media environment (Beguš 2019: 15–16). Moreover, vaporwave's preoccupation with mood, or "a vibe" in internet parlance, has led to a vernacular reformulation of the concept of aesthetics. Fans of vaporwave started to invoke the concept of aesthetics, often styled as "AESTHETICS" using Unicode full-width characters to simulate Asian lettering, to express an affirmation of a particular vibe or a general atmosphere that a piece of content generates. But soon, aesthetics started to be used to denote online trends beyond vaporwave. In her book about grassroots culture in the contemporary online sphere, Tanni even argues that vaporwave is the *mother* of a diverse range of subsequent internet aesthetics, or aesthetics as internet gatekeepers, creators, audience and algorithms now find to define:

A passion for transitional spaces – both physical and mental – a sense of solitude, time-lag, nostalgia, a yearning for the infinite, a continuous emphasis on the interweaving of memories and sensations: these are all now ubiquitous themes in internet culture, which branched out from vaporwave to all the main aesthetics that came after it (Tanni 2024: 45).

The offshoots that came after vaporwave also serve as means of expression for diverse global online cultures and political ideologies or simply for shitposting and trolling. Due to its ironic stance and popularity among digital natives, the vaporwave aesthetic has also become part of a more internet-prone, politically oriented propaganda, particularly with the rise of the alt-right and crypto-fascism. The most distinctive and discussed example is fashwave, which attempts to reshape nostalgia and social alienation by "filling vaporwave's virtual space with far-right imagery and shifting the meaning of some of its central signifiers to produce a sense of hope in a fascist future" (Koc 2022: 213). However, among the so-called political (and militaristic) waves, various and sometimes ideologically conflicting sub-genres emerged, such as laborwave, anarchowave, militarywave, NATOwave and also Serbwave (Aesthetics Fandom 2025b).

3 Yugowave: An update on Yugonostalgia?

Vaporwave seems a perfect formula to put the extinct Yugoslavia on the map of online cultural trends. It allows for the creation of online content by tapping into the collective memory of Yugoslavia, resulting in a phenomenon similar to other genres (e.g. Sovietwave) that emerged with the widespread adoption of vaporwave aesthetics online.

Although Yugowave borrows heavily from vaporwave aesthetics, it differs from its predecessor in several crucial respects. Its historical debris is not the detritus of Western consumer capitalism but the fragments left by the disintegration of the

Socialist Federal Republic of Yugoslavia. At first, Yugowave creators attempted to produce genuine vaporwave-like music with a Yugoslav audiovisual base, but soon a more nationalistic and patriotically oriented Yugowave emerged, filled with irony and militarism. The indistinguishable blend of consumerist utopia and dystopia that characterises vaporwave is thus supplanted by a meme-like aestheticisation of violent political reality and war. In Yugowave, vaporwave aesthetics takes an explicitly political turn.

Consequently, Yugowave draws on a distinctive palette of samples: Yugo-pop, Yugo-rock, turbofolk and wartime songs, alongside iconic footage of Yugoslav architecture, socialist rituals or everyday life in Yugoslavian socialism and footage from the succession wars of the 1990s. It is also heavily inflected by synthwave, a retro-futuristic genre that emerged in parallel with other (vapor)wave currents. Another difference is that while vaporwave has become almost canonical within 21st-century internet music, most Yugowave creators never set out to establish a discrete musical subgenre. Instead, they fashioned a strand of post-Yugoslav internet content that coalesced through ephemeral user engagement on sharing platforms. As Jukić observes:

There are (1) creators who find it sufficient simply to slow down selected material and filter it through a reverb effect (e.g., the YouTube channel "TheAthelasProject"); (2) creators who combine disparate samples to craft entirely new tracks in a style reminiscent of vaporwave (e.g., the SoundCloud artist SyntheticSnow); and (3) creators who produce detailed, fully transformative remixes that alter a song's pitch, timbre, mood, instrumentation and texture (e.g., YouTuber Tim Klošar) (Jukić 2019: 59).

Based on an analysis of selected creators, Jukić identified three sub-phenomena that reveal the stylistic and thematic diversity of Yugowave, which ranges from Yugonostalgia to nationalism. The work of SyntheticSnow, a Yugowave pioneer, falls on the most Yugonostalgic part of the spectrum, expressing a longing for an idealized Yugoslav past while maintaining a reflective attitude towards Yugonostalgia. According to Jukić, this attitude is characteristic of most of today's Yugo-sphere (Jukić 2019: 61). For example, in the song *I miss Yugoslavia*, as SyntheticSnow titles his chopped and slowed-down version of Lepa Brena's patriotic hit *Jugoslovenka*, the title word "Jugoslovenka" ("Yugoslav woman") is glitched every time it appears. A similar semantic game can be found in the video titled *BACILA JE SVE NIZ RIJEKU - INDEXI*, posted on YouTube by yugowavenation. While the original title of a song by the Sarajevo pop-rock band Indexi ("She threw everything down the river") refers to lost love and abortion, the Yugowave version offers it as a metaphor for the sad end of Yugoslavia itself.

In contrast, the work of YouTuber TheAthelasProject is focused not on Yugonostalgia or on the SFRY itself, but rather on the wartime period and the emergence of post-Yugoslav nation-states. TheAthelasProject's Yugoslavia-related videos primarily feature archival war footage along with slowed-down renditions of 1990s Serbian pop-folk martial songs with aggressive and nationalistic rhetoric. The titles of these videos are often ironic or sarcastic, for example: YUGOWAVE - VIVA LA VIDA (SLOBODAN) ノ中穏ブビ・, SERBWAVE - AIN'T WAR HELL? 右益きペサ, Serbwave - Chilling in the 90s 竹河そゝヤ or SERBWAVE - YOU CAN BLOW US CLINTON づどり 圧え可飲. As Jukić observes in the comments under TheAthelasProject's videos, this type of content "resonates with popular feeling in Serbia in recent times following years of increasingly conservative, right-wing rhetoric and nationalistic fervor promoted both by politicians and the mainstream media, all presenting an extreme end of the spectrum regarding strategies of symbolic nation-building after the SFRY's disappearance" (Jukić 2019: 63).

Still, she recognizes the persistence of transgenerational post-war trauma in Serbwave, and according to her interpretation, the potential for resolving traumatic memories is represented by the synthwave remix Roki "LAZERYES" Vulević – *Neon Bombarder* by YouTuber PahaMuumiJumala. In this simple remix of popular Serbian turbo-folk singer Roki Vulević's war anthem *Crni bombarder*, the original lyrics have been omitted, leaving only the distinctive synth sounds intact. The accompanying visuals adopt a retro futuristic style, portraying a minimalist cyber landscape alongside Vulević's strikingly portrayed laser-like eyes. According to Jukić, *Neon Bombarder* provides a detached and ironic reinterpretation of a nationalistic anthem, illustrating the genre's capacity for innovative post-traumatic processing of the collective memory associated with war.

It is also important to note Jukić's conclusion that Yugowave and its offshoots represent Yugonostalgia in an "updated" form (Jukić 2019: 66). Yugonostalgia is a widely discussed phenomenon, often linked to the resistance against historical revisionism in former Yugoslav countries and post-Yugoslav nationalist ideologies. It also reflects dissatisfaction with the current social and political realities and serves as a reconciliation process among former Yugoslavs (Maksimović 2017; Popović 2025). Yugonostalgia is also not exclusive to the (last) Yugoslav generations and it can manifest in various ways in today's online sphere. But with updating, Jukić does not primarily refer to the online remediation (see Blom, Lundemo and Røssaak 2016) of nostalgia towards the Yugoslav past. Instead, she emphasizes the ambiguous and often critical dialogue with Yugonostalgia on the one hand and the haunting presence of collective trauma from the succession wars on the other.

However, it is difficult to classify Yugowave solely as a manifestation of updated Yugonostalgia, especially given latter positive reception and integration within cultural sectors. Using Velikonja's (2008) distinction between cultures of nostalgia - which represent the commercialization of nostalgia - and nostalgic cultures, which are rooted in vernacular traditions, we can contend that the often ironic tone found in Yugowave and Serbwave actively opposes the branding and exploitation of Yugonostalgia that occurs in traditional culture, marketing, media, and academia. But as part of the post-vaporwave evolution, they do not fit into nostalgic cultures either. Yugowave and Serbwave differ significantly from other online forms expressing Yugonostalgia or remediating memories about Yugoslavia (for the case of Instagram, see Boccia Arteri and Zurovac 2019).

They should be instead analysed as a genre or a form of internet aesthetics discussed above. This is the reason that we defined Yugowave or Serbwave as distinct from other Yugowave branding, such as a Yugowave retro-party DJ collective, Instagram account yugo.wave and especially YouTube playlists of pop-rock music from the period of SFRY. Aesthetically and ideologically, it is a separate phenomenon. TheAthelasProject's videos also clearly mark the branching of the Yugowave genre and the emergence of Serbwave, a nationalistic and militaristic aesthetic sub-genre, which is often categorized as a sub-genre of political wave, part of the war aesthetic and militainment, or as part of the online right-wing sphere (Waysdorf 2022).

It is therefore important to emphasize that there is both a local and global fascination with the socialist past and the Yugoslav wars, particularly among younger generations born just before or after the breakup of Yugoslavia, along with a persistent exoticism surrounding the Balkans. The fascination with the Balkans and its global representation has certainly become quite fragmented on the internet, but one of the ways in which the Balkans are positioned in global culture is often through war, violence,⁷ chauvinism, nationalism and (South) Slavic self-irony. As we might assume, Yugowave or Serbwave are not merely an aesthetic expression or appreciation limited to post-Yugoslav societies. Rather, they are subjects of global internet attraction and, consequently, a stake in the algorithmic attention economy and various online communities.

7. An example would be Balkan/Slavic Violence Tumblr, an aesthetics on Tumblr blogs with photos, depicting paramilitary groups from Russia and the Balkans, Orthodox iconography, gore, drugs, weapon collections, excessive masculinity and bondage. Because of the NSFW elements, many blogs were deleted during Tumblr Purge in 2018 (Aesthetics Fandom 2025c).

4 Yugowave on YouTube

Although Yugowave albums and playlists can be found on SoundCloud and Bandcamp, our preliminary research indicates that the majority of Yugowave-associated content exists solely on YouTube.⁸ This is consistent with the above-mentioned transition of vaporwave into a vernacular online cultural and aesthetic content, which is primarily distributed and consumed on popular online platforms such as YouTube.

YouTube is the second-largest social media platform, with over 2.5 billion active users (Shubham Singh 2025). It is the leading video service globally and serves as the world's largest audiovisual repository, acting as an information system, ever-growing grassroots archive or an externalized collective memory. The platform hosts billions of videos across a wide range of categories, including various genres of user-generated content, music, live streams and archival footage. There is also a significant presence of YouTube-native content and influencers, commonly referred to as YouTubers, along with other platform-based media production. While users can consume content on YouTube through search functions, subscriptions to creators or uploaders and external links, their experience is primarily shaped by a personalized algorithmic curation system and the intensive attention economy.

An important feature of YouTube's attention economy and platform culture, as well as its role as a social media platform, is the comment section, which over time developed into a unique form of communication, complete with its own codes, phrases, parlance and inside jokes. Comments serve as a way for audiences to discuss and evaluate content, along with any related issues. Accordingly, commenters can be seen as highly engaged viewers; after all, "people who do not have strong feelings are not likely to bother commenting" (Waysdorf 2022: 25).

It is therefore important to consider the platform-specific nature of the phenomenon and the research affordances it presents (Arthurs, Drakopoulou, and Gandini 2018) when analysing content production and audience communities of Yugowave. Researchers highlight that analysing comments "constitutes a

8. We utilized the platform's built-in search functions to gather results for our queries on Yugowave, Yuwave, and Serbwave across Bandcamp, SoundCloud, Spotify and YouTube. While YouTube yielded a larger number of results and SoundCloud had comparatively fewer, Bandcamp and Spotify were more lacking. We can identify only a couple of Yugowave artists on Bandcamp, including SyntheticSnow. On the other hand, searches on Spotify mostly returned playlists featuring music from the time of the former Socialist Federal Republic of Yugoslavia or Serbian music from the 1990s.

potentially interesting data source to mine for obtaining implicit knowledge about users, videos, categories, and community interests" (Hussain et al 2018: 21). By scrutinizing the publicly available subscriptions of commenters as indicators of their broader preferences on YouTube, we aim to utilize this data to gain implicit knowledge about the highly engaged audience of Yugowave and its related offshoots.

4.1 Data collection

To collect data, we first manually compiled a playlist of Yugowave-related videos.⁹ We began with the search results for the "Yugowave" and "Serbwave" query terms, then followed YouTube's recommendations for each result. Lastly, we examined the video section of the Yugowave content uploaders' channels. We use the following criteria to compile the playlist: (1) Yugowave, Serbwave or related labels such as Croatwave, Bosniawave, Kebabwave, Arkanwave, Albanianwave, Slobowave; (2) a clear distinction between vaporwave-style Yugowave and playlists containing unprocessed Yugoslav originals: the latter were excluded; (3) related audiovisual aesthetics, e.g., synthwave, slowed & reverb, 8-bit or "doomer" versions of Yugoslav-related music and AI-generated Yugowave; (4) Yugoslav-themed war aesthetics; (5) original vaporwave-style Yugowave-labelled tracks.

The resulting playlist, finalized on 30 June 2025, comprised 433 videos, which we used as our starting point for further data collection. Using the YouTube Data API (Application Programming Interface), we retrieved the following datasets:

- 1) Metadata for videos in the playlist, resulting in a dataset of 426 videos.¹⁰
- 2) From each seed video, we extracted all available comments, recording each commenter's YouTube username/ID. This yielded a list of users who engaged with the seed videos. By focusing on commenters, we captured a set of active viewers, although this approach represents a non-random subset of the overall audience (Traag, Waltman and van Eck 2019). This resulted in the dataset with 26,133 comments and 14,344 unique commenters and their associated metadata.

9. The playlist is publicly available here: <https://www.youtube.com/playlist?list=PL-FcIUHXG0lr6BikxK7rWlvwqhkXokRkfa>.

10. Our primary focus is on commenters; therefore, this does not reflect the number of unique videos, as the playlist may contain duplicates uploaded by different channels. The difference between the number of videos added to the playlist and the retrieved videos results from the fact that five videos are set as private and two were already removed by their uploaders by the time of our analysis.

- 3) For every unique commenter gathered in the previous step, we retrieved the list of YouTube channels to which the users subscribe, provided their subscription list is public. (Users can hide their subscriptions, in which case that commenter is excluded from this step.) In our database, 37% ($N = 5,367$) of the commenters have their subscriptions publicly visible,¹¹ and 3,405 of these are subscribing to at least one channel. This yielded a final dataset of 530,523 unique subscriptions and 1,351,532 subscriptions in total.

It is important to note that the playlist we compiled may not be a complete representation of Yugowave and related content on YouTube. However, it is comprehensive enough to provide key insights into evolution of Yugowave on YouTube and audiences that engage with this phenomenon.

4.2 Analysis

To analyse audience structure, we used subscriptions recorded for users in our dataset. The object of analysis is a bipartite (two-mode) network (Borgatti and Everett 1997) linking users to the channels they subscribe to. We retain one edge per (user, channel) pair (duplicates removed) and drop missing values. To reduce noise from isolated activity, we analyse the bipartite 2-core: we iteratively remove users and channels with degree < 2 until all remaining nodes have at least two ties. This preserves meaningful co-subscription patterns while avoiding singletons that cannot contribute to overlap. The resulting 2-core comprises 3,399 users and 134,683 subscribed channels.

Very popular channels and hyper-active users can dominate co-subscription patterns. To dampen this effect without discarding data, we use mild, degree-aware TF-IDF-style weights on user-channel edges (Alupoaie and Cunningham 2013). Intuitively, a subscription to a rarer channel counts more than a subscription to a ubiquitous one, and ties from extremely prolific users are down-weighted. All community detection is performed on this weighted bipartite graph.

Communities are detected with the Leiden algorithm (Traag et al. 2019) optimizing a degree-corrected configuration null model (Reichardt and Bornholdt 2006). This null model asks: given that each user and each channel keep their observed number of ties, what would connections look like if they were formed at random? The method favours a partition only when observed within-community ties exceed that degree-preserving expectation. We fix the resolution parameter (γ) at 1.0 for the main analyses (lower (< 1) γ yields fewer, larger communities; higher (> 1) γ yields more, smaller communities).

11. This represents a comparable proportion to that found in other studies based on similar methodologies (see Clark and Zaitsev 2020).

Because community detection is stochastic, we run Leiden 50 times (same γ) with different random seeds and build a consensus partition. Concretely: for each channel, we record the community it receives in each run, align labels across runs and assign the majority label as the consensus. We also compute a stability score for each channel: the share of runs in which it was assigned to its consensus community. In the analysis, we distinguish core channels (stability ≥ 0.6 or ≥ 0.8) from more ambiguous boundary cases.

To characterize each community, we compute channel-level log-odds enrichment with an informative prior, comparing how common a channel is within a community versus globally. This yields interpretable rankings of representative channels per community. To control for multiple comparisons, we compute a z-score for each channel. We then convert each z-score to a two-sided p-value and apply the Benjamini–Hochberg procedure (Benjamini and Hochberg 1995) to control the false discovery rate, obtaining q-values. We flag channels only if they show both a practically large effect ($|z| \geq 2$) and survive control ($q < .05$), limiting the expected fraction of false positives among the highlighted channels. We assess robustness along three dimensions:

- 1) Seeds (reliability): agreement between each run and the consensus is summarized with the Adjusted Rand Index (ARI); higher ARI (towards the value of 1) indicates more consistent results across random starts (Yeung and Ruzzo 2001). Across 50 runs, mean ARI = 0.526 (SD = 0.092).
- 2) Resolution (scale): we vary γ in a narrow range and compare each partition to the $\gamma = 1.0$ baseline using ARI. Relative similarity is ARI = 0.398 at $\gamma = 0.8$, ARI = 1.000 at $\gamma = 1.0$ (by definition), ARI = 0.408 at $\gamma = 1.2$, and ARI = 0.377 at $\gamma = 1.5$ (for completeness, $\gamma = 0.5$ yields ARI = 0.122). These values indicate that the major communities persist across nearby scales (0.8–1.2), while more distant resolutions diverge as expected.
- 3) Popularity sensitivity: we rerun the Leiden algorithm on (a) the unweighted bipartite graph and (b) a variant that trims the top 1% most prolific users, then compares the TF–IDF baseline with ARI. Relative to the unweighted baseline, the TF–IDF specification yields ARI = 0.429 and the trimmed variant yields ARI = 0.382, indicating moderate sensitivity but broadly similar structure even under harsher popularity controls.

As a validity check against chance structure, we compare the observed community quality to a degree-preserving bipartite rewiring null: we randomize the graph by swapping endpoints while keeping every user- and channel degree, then rerun the Leiden community detection algorithm on these randomized graphs. On the unweighted graph, the observed objective is $Q = 757,865.904$ versus a null distribution with mean $Q = 373,985.419$ and SD = 493.808 (50 null runs;

five swaps per edge), yielding $z = 777.388$. We observed that the quality far exceeds the null distribution indicating a genuine community structure beyond degree patterns.

All analyses were implemented in Python. For network analysis we used SciPy, NetworkX and leidenalg Python libraries.

5 Findings

5.1 The dissolution of Yugowave

To trace the development of the Yugowave phenomenon on YouTube, we first examined its upload trajectory. Although the first videos were uploaded in 2014 and 2015, there was a significant increase in uploads after 2018, rising from 37 that year to 59 in 2020, and then peaking in 2021–2022.¹² The findings thus contradicts Jukić's claim from 2019 that Yugowave had not yet reached its early maturity (Jukić 2019: 59), as it already entered a phase of decline after 2022–2023.

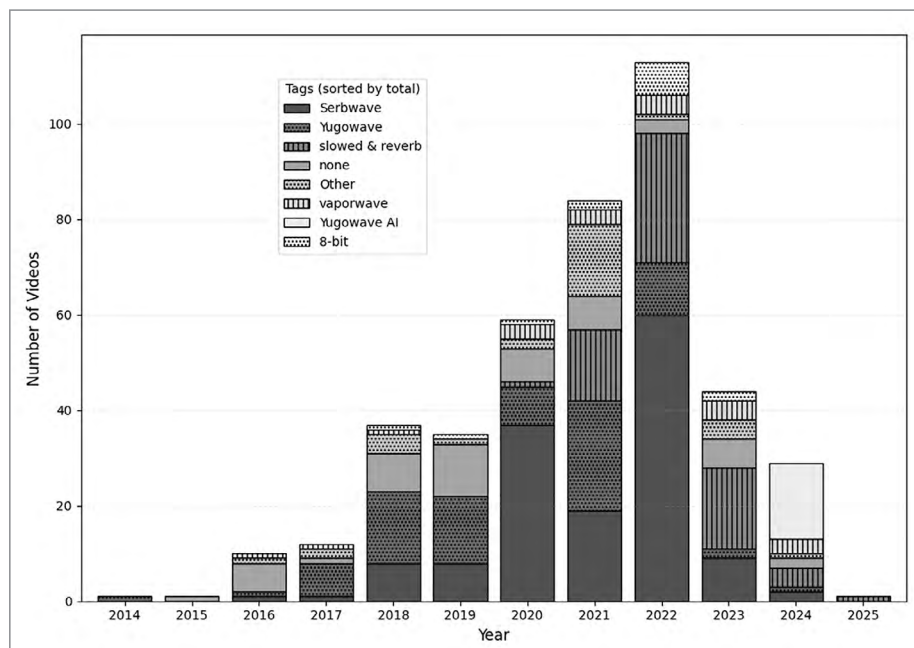
However, the uploading trend does not provide any information about content evolution. To get a more granular view, we therefore manually extracted creators' self-assigned tags from video titles and descriptions (e.g., vaporwave, Yugowave, Serbwave, Croatwave, slowed & reverb), given that tagging and labelling is an important aspect of -wave aesthetics. Because many creators use these categories interchangeably,¹³ tagging data is noisy, but as shown in Figure 1 it still reveals clear trends. Until 2020, the generic Yugowave label dominated, but as the production and uploading expanded, it was overtaken by a Serbwave tag and to a much lesser degree by other post-Yugoslav national sub-waves. Serbwave is also the most popular tag in our dataset, appearing on 145 videos or encompassing 34% of the video dataset.¹⁴ It could also be observed that more neutral tags started to appear after 2022, with slowed & reverbed being the most popular in 2023 and yugowave AI in 2024.

12. The peak in 2022 resulted from 54 re-uploaded videos by TheAthelasProject. The original upload date and the reasons for their removal remain unknown.

13. For simplicity, we have grouped similar tags into single categories: Serbiawave, Serbchill and Serbiavibe have been combined into Serbwave; Bosniakwave and Bosniawave have been merged as Bosniawave; chiptune and 8-bit are now collectively referred to as 8-bit; and doomer and doomer wave have been consolidated into doomer wave. When multiple tags are associated with a single video, we prioritize the more specific one. For example, if both Yugowave and Serbwave tags are present, we will use Serbwave.

14. The tags and the number of videos associated with each tag are as follows: Serbwave (145), Yugowave (83), slowed & reverb (65), none (52), vaporwave (20), Yugowave AI (16), 8-bit (14), doomer wave (6), Synthwave (5), Bosniawave (5), War aesthetics (4), Croatwave (3), Kebabwave (2), Arkanwave (1), Pernarwave (1), Titowave (1), Turbo tugica (1), Albanianwave (1), Slobowave (1).

Figure 1: Uploaders' self-assigned tags from video titles and descriptions.



These findings reflect the broader fragmentation and development of wave aesthetics online, where tagging and naming an aesthetic become creative acts in themselves. Sometimes, this process can launch a new trend, even when the underlying aesthetic principles are similar to those of already established aesthetics. In our case, this is evident with the slowed & reverbed tag, which primarily designates videos closely resembling those of the Serbwave aesthetic. Additionally, tagging aligns with the platform's algorithmic logic: using popular or viral tags increases the likelihood that videos will be recommended.

An important observation is the complete absence of content referencing Slovenia or Northern Macedonia. This further supports our assumption that a significant portion of the Yugowave, as an umbrella term for all the content in our dataset, is not primarily rooted in Yugonostalgia.¹⁵ Possibly, this could be explained by several factors: the lingering collective trauma from the Bosnian War and, to a lesser extent, the Kosovo conflict; the alienation felt by younger generations in newly formed nation-states; ongoing political tensions in Bosnia and Serbia; and the development of local cultural and political identities under the political hegemony of the West. Concurrently, this is influenced by online aesthetic trends and their ideological implications.

15. For the analysis of Yugonostalgia in Slovenia, see for example Velikonja (2013).

If, according to Jukić, the popularity of Serbwave compared to Yugowave, highlights the dominance of nationalistic discourse in contemporary society (Jukić 2019: 66), it is worth noting that an examination of the videos in our playlist shows a significant prevalence of militaristic content. Much of the Yugowave, Serbwave, Bosniawave or Croatwave for that matter therefore fits into the category of vaporwar. With this term, Waysdorf refers to military fan videos with vaporwave aesthetic and the focus primarily on the aesthetic appreciation of war. While vaporwar is undoubtedly influenced by a military-focused fashwave and the alt-right, the phenomenon itself is not strictly centred on nationalism or distinctive political ideology. According to Waysdorf, vaporwar is an internet-based, aesthetic and nostalgic celebration of the military. "This means that its nostalgia is ambivalent, drawing from vaporwave's combination of sincerity and irony to express nostalgia for a past era of the military while avoiding a strong commitment to the yearning that nostalgia typically represents. Its devotion lies with militaries, not a specific cause" (Waysdorf 2022: 34). The war aesthetic associated with Yugowave-related phenomena may suggest that this content is distributed algorithmically among YouTube audiences interested in militainment.

Table 1: Engagement metrics for Yugowave videos (N = 426) on YouTube.

	Mean	Std Dev	Min	25%	50%	75%	95%	Max	Skew
Views (N = 426)	46,006.74	234,426.81	9	514.25	3,047.5	21,796.5	147,022.7	3,486,771	11.16
Likes (N = 423)	954.41	4,556.17	0	15.00	84.0	446.5	2,835.4	57,692	9.63
Comments (N = 424)	61.46	237.44	0	1.00	7.0	34.0	224.2	2,599	7.57

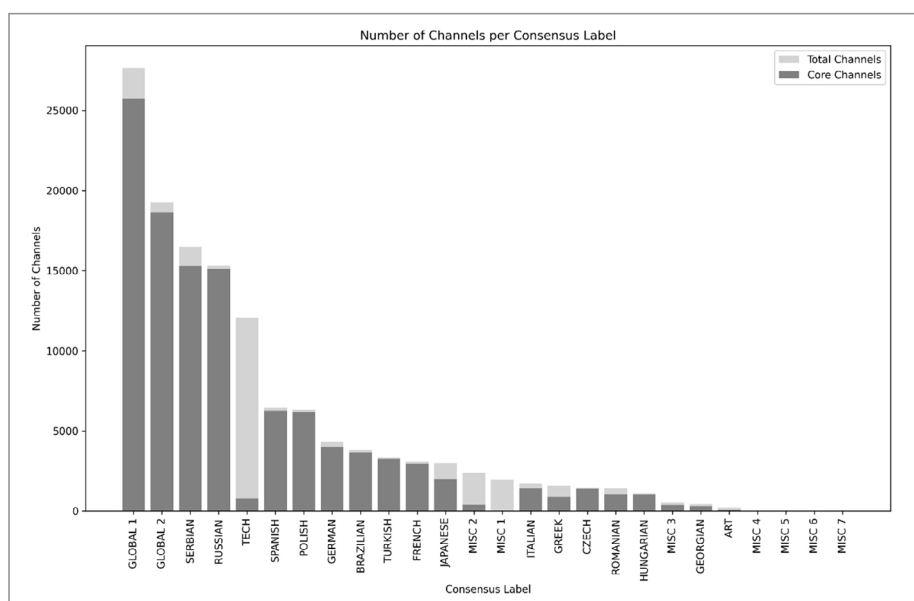
Before we continue with our analysis of Yugowave's audience, it is also important to note that the engagement with this content is concentrated, as expected from an online platform such as YouTube. The videos in our dataset receive an average of approximately 61 comments, but the distribution of comments per video is highly right-skewed, with a skewness value of 7.57 (adjusted Fisher–Pearson, N = 424). This indicates that active viewer engagement is concentrated on only a small number of videos, which also rank as the most popular according to other engagement metrics (see Table 1). The Spearman rank correlations between comments and likes or views further support this observation: $\rho(\text{views, comments}) = 0.92$ (N = 424) and $\rho(\text{likes, comments}) = 0.94$ (N = 422), with all p-values being less than 0.001.¹⁶

16. The Spearman rank correlation value is also strong for views and likes: $\rho(\text{views, likes}) = 0.98$ (N = 423).

5.2 Audience communities

Clustering the user–channel bipartite graph yields approximately two dozen stable communities, which together delineate how Yugowave circulates through YouTube’s heterogeneous public. The consensus solution is reliable (mean ARI ≈ 0.82 across 50 random initializations) and most representative channels within each cluster are consistently assigned across runs (see Appendix for top channels). We therefore interpret these taste communities as meaningful, if porous social formations that allow us to infer some characteristics about Yugowave audience on YouTube. To qualitatively analyse the preferences of this audience, we review core channel titles, their descriptions, and browse through their content.

Figure 2: Detected audience communities with annotated labels.



The communities with a large share of channels consist of platform-wide mainstream audiences. One of the communities (GLO 2 in Figure 2) is centred around channels such as MrBeast (currently the most subscribed channel on YouTube), IShowSpeed and Cristiano Ronaldo’s official channel, attracting viewers who prefer to watch viral YouTubers and subscribe to social media influencers. An adjacent cluster (GLO 1) features influential YouTuber PewDiePie, animated history channels like Internet Historian and Sam O’Nella Academy and pop-science/explainer channels like Vsauce. The subscriptions for these channels indicate preferences for infotainment and edutainment. Interestingly, this mainstream-oriented cluster also includes a strong presence of Slavic content,

highlighted by popular Slavic creator and musician Life of Boris, as well as channels focusing on weapons, like Brandon Herrera and DemolitionRanch. The relatively high number of subscribers to these channels indicates their wide reach among the commenters in our dataset. For instance, 1,119 commenters subscribe to PewDiePie, 843 to Life of Boris, and 417 to Brandon Herrera.

As seen in Figure 2, most communities are centred around nationality, region and language. We identified clusters with a significant number of Serbian, Russian, Polish, German, Turkish, French, Greek, Italian, Czech, Romanian, Hungarian, Georgian, Japanese/East-Asian and some Spanish and Brazilian/Portuguese language channels among their top representatives. While domestic YouTubers and entertainment or comedy channels are common in each of these clusters, the international communities within Yugowave audience show distinct preferences. The Russian cluster is characterized by a preference for music, including classical music channels like Vinheteiro and doomer music channels such as JustMyFavStrangeMusic. The Polish cluster shows an interest in history, with channels like CiekaweHistorie and Historia bez Cenzury. The German community leans towards (grassroots and official) militainment, featuring channels like PARALIGHTWORX and Bundeswehr, the official channel of the German Armed Forces, as well as legacy media like ARTEde and DER SPIEGEL. The Turkish cluster favours historical military or patriotic music, with channels like AgtfCZ and TheKhanate. The Italian community follows domestic channels about history (e.g., Nova Lectio) and music, ranging from Gigi D'Agostino to American post-punk and darkwave bands. The Czech cluster is primarily focused on gaming, with channels like Road to Vostok and Agraelus and Russian post-punk music. The Japanese community is centred around anime and J-pop, while the Romanian community shows a preference for domestic hip-hop, such as the B.U.G. Mafia channel. Since these communities are based on a co-subscription network among a heterogeneous set of commenters of niche YouTube content, it is not surprising that mainstream channels and language play a significant role in their co-subscription clustering, indicating the international scope of YouTube users engaging with Yugowave.

Additionally, there is a third set of communities that are less dense and organized around common interests rather than language or nationality. At least two distinct taste communities can be qualitatively identified. These communities are primarily focused on vintage tech on one side and art/drawing on the other. Despite some interesting observations – in one such cluster, for example, we find Arab YouTubers alongside a communist memes channel, which most likely indicates an audience that favours non-Western and anti-hegemonic content – the remaining communities are less interpretable, so we have labelled them as miscellaneous (MISC).

Within the nationally defined communities, the Serbian cluster stands out as the strongest and most internally cohesive, characterized by the preferences for the history of Yugoslav wars, militainment and wartime music. Commenters from the Yugowave community are subscribed to Rodoljub "Roki" Vulović's official channel, as well as to TheAthelasProject, the creator of Serbwave, which has 409 subscriptions among the commenters. Additionally, they follow Serbian archival and compilation channels such as Naša Srpska Arhiva and Kocayine, a channel dedicated to Yugoslav war footage from all sides of the conflict.

Across all detected communities, there is a notable similarity in interests: history, patriotism, militainment, weaponry, gaming and YouTube entertainment formats, with music being perhaps a secondary interest. Importantly, we also did not identify any vaporwave or other similar online aesthetic channels. Nor did we find any Yugonostalgia-related channels. This suggests that the audience commenting on videos in the dataset constitutes a significant portion of military and war aesthetic fandoms on YouTube. Given the prevalence of patriotism, cringe-worthy historical content and war aesthetics within Serbwave, this trend is unsurprising.

These findings could also shed light on the cultural and demographic characteristics of the Yugowave audience. Additionally, we corroborate the international structure of commenters suggested by the network analysis with (limited) profile metadata. We obtained YouTube data related to individual accounts from our commenter dataset ($N = 14,329$), including account creation dates and self-reported countries of residence. However, since providing country information is not mandatory and users select their own entries – regardless of their actual residence or citizenship – we cannot draw definitive conclusions about the nationalities of the commenters from this data. In our analysis, we found that only 15% of the commenters provided country information; these listed 129 different countries. The most common among these were the United States ($N = 363$), Serbia ($N = 251$), the Russian Federation ($N = 155$), Poland ($N = 105$), Germany ($N = 82$) and Bosnia ($N = 80$). Although the information is limited and potentially unreliable, it affirms the conclusion that the commenters – and, consequently, the audiences of Yugowave – are largely international.

Furthermore, the popularity of some of the viral YouTubers points to the consumption patterns of Generation Z on YouTube. Our additional findings indicate that 60% of commenters created their YouTube profiles between 2015 and 2021. Considering that YouTube requires users to be at least 13 years old (in most countries) to register independently – and that many sign up as older teens or young adults – we can cautiously speculate that the majority of commenters are late Millennials (born 1990–1996) and early Gen Z (1997–2003).

Finally, preferences for military themes and weaponry, along with content that is predominantly produced by and oriented toward males, suggest that this audience is largely male.

6 Conclusion and further work

Yugowave and the related post-Yugoslav wave aesthetic represent an audiovisual phenomenon characterized by ambivalent nostalgic references to the era of the socialist federal state of Yugoslavia and the war conflicts that followed its dissolution. A notable example is Serbwave, which primarily features war footage from the Yugoslav wars of the 1990s and includes slowed-down versions of pro-Serbian folk-pop war anthems. These digitally manipulated temporalities complicate – or literally glitch – the practices of collective memorization in the region, particularly Yugonostalgia. As an online genre, it reflects the experiences of generations born just after the dissolution of Yugoslavia and represents an example of how memory is remediated through the integration of cultural history into online databases such as YouTube and the algorithmic programming of cultural consumption.

In order to detect audiences that consume this type of content, which was the main aim of the analysis presented in the article, we retrieved full comment threads of 426 Yugowave-related videos and publicly available data about the channels that commenters follow on YouTube. We define commenters as an actively engaged audience, while remaining agnostic about their attitude towards the content. We used their subscriptions as a proxy variable, which, based on a bipartite network of users and their subscriptions, helped us (using the Leiden algorithm) to detect different taste communities on YouTube and position the Yugowave audience within them.

Beyond two large mainstream YouTube clusters, the detected taste communities are predominantly organized around nationality and language. This structure clarifies that Yugowave/Serbwave and related post-Yugoslav aesthetics are not confined to regional (Balkan) audiences: while engagement is strongest across East European/Slavic spheres, the presence of Turkish-, Japanese-, and Brazilian-Portuguese-language channels among commenter subscriptions points to a genuinely transnational reach. The examination of representative channels further shows that audiences coalesce less around genre labels than around shared interests: history, militainment, weaponry, gaming and YouTube-native entertainment formats. Taken together, these patterns are most consistent with a predominantly young male cohort fluent in platform vernacular and (post) ironic internet culture. Ideological inference from subscriptions alone remains

contingent. Nevertheless, the large share of nationalist, patriotic and military content suggests that portions of the audience are in proximity to the right-wing orientation on the traditional political compass.

Our approach, however, has clear limitations. First and foremost, we examine a subset of commenters as a proxy to gain insights into wider preferences of Yugowave audience on YouTube. Commenters are highly engaged but non-representative. Second, we rely on publicly visible subscriptions among the already non-random sample. Third, profile metadata (e.g., self-reported country, account age) is incomplete and not designed for demographic inference; any cohort characterization is therefore tentative.

Future work should scrutinize the comment corpus directly to complement the structural picture offered by subscriptions and explicitly question how commenters evaluate these videos and how they relate to the content. Concretely, applying sentiment analysis and topic modelling can map the affective and thematic reception along axes of nostalgia, patriotism, nationalism and the intricacies of internet meme cultures and trolling practices (including irony and sarcasm).

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Appendix: Annotated clusters with channel examples (max 5), stability score and number of subscribers (degree) from the dataset.

Label: GLOBAL 1

- PewDiePie (stability: 1.0, degree: 1119)
- Life of Boris (stability: 1.0, degree: 843)
- Vsauce (stability: 1.0, degree: 715)
- Internet Historian (stability: 1.0, degree: 506)
- Sam O’Nella Academy (stability: 1.0, degree: 487)

Label: GLOBAL 2

- MrBeast (stability: 1.0, degree: 714)
- IShowSpeed (stability: 1.0, degree: 236)
- Lionfield (stability: 1.0, degree: 149)
- Sambucha (stability: 1.0, degree: 130)
- MaskedArab (stability: 1.0, degree: 109)

Label: SERBIAN

- Rodoljub Roki Vulović Official (stability: 1.0, degree: 414)
- TheAthelasProject (stability: 1.0, degree: 409)
- NSA - Naša Srpska Arhiva (stability: 1.0, degree: 407)
- Sabaton (stability: 1.0, degree: 378)
- Kocayine (stability: 1.0, degree: 351)

Label: RUSSIAN

- Vinheteiro (stability: 1.0, degree: 284)
- Rammstein Official (stability: 1.0, degree: 250)

- BadComedian (stability: 1.0, degree: 146)
- Lofi Girl (stability: 1.0, degree: 140)
- JustMyFavStrangeMusic (stability: 1.0, degree: 132)

Label: TECH

- Lydia Violet (stability: 0.82, degree: 10)
- Jan Beta (stability: 0.82, degree: 3)
- Lynyrd Skynyrd (stability: 0.8, degree: 13)
- Electronics Repair School (stability: 0.8, degree: 8)
- HAUSER (stability: 0.8, degree: 6)

Label: SPANISH

- DubstepGutter (stability: 1.0, degree: 63)
- DrossRotzank (stability: 1.0, degree: 62)
- TRASH 新 ドラゴン (stability: 1.0, degree: 56)
- Ordnance (stability: 1.0, degree: 52)
- 8 Bit Universe (stability: 1.0, degree: 46)

Label: POLISH

- ciekawehistorie (stability: 1.0, degree: 64)
- IrytujaHistoryk (stability: 1.0, degree: 60)
- Historia bez cenzury (stability: 1.0, degree: 59)
- SciFun (stability: 1.0, degree: 59)
- Polish Eagle (stability: 1.0, degree: 58)

Label: GERMAN

- PARALIGHTWORX (stability: 1.0, degree: 83)
- Bundeswehr (stability: 1.0, degree: 69)
- PLW History (stability: 1.0, degree: 60)
- Stromae (stability: 1.0, degree: 41)
- ARTEde (stability: 1.0, degree: 39)

Label: BRAZILIAN

- TFP Student Action (stability: 1.0, degree: 55)
- Sam! (stability: 1.0, degree: 41)
- EricArchive (stability: 1.0, degree: 29)
- GANGSTER SQUAD (stability: 1.0, degree: 28)
- Michael Jackson (stability: 1.0, degree: 26)

Label: TURKISH

- Ruhi Çenet (stability: 1.0, degree: 60)
- Haci Productions (stability: 1.0, degree: 49)
- Bilal Göregen (stability: 1.0, degree: 47)
- AgtfCZ (stability: 1.0, degree: 39)
- edhaje (stability: 1.0, degree: 34)

Label: FRENCH

- Ex Cathedra (stability: 1.0, degree: 111)
- Investigations (stability: 1.0, degree: 43)
- Powerwolf Official (stability: 1.0, degree: 42)
- Black Beard Projects (stability: 1.0, degree: 42)
- ViveLeRoy (stability: 1.0, degree: 33)

Label: JAPANESE

- GARNiDELiA (stability: 0.86, degree: 4)
- Kirsty Partridge Art (stability: 0.82, degree: 4)
- 中国街景 China Street View (stability: 0.82, degree: 4)
- BragonGod (stability: 0.8, degree: 12)
- MRB - MetroRail Blog (stability: 0.8, degree: 3)

Label: MISC 2

- TODAY (stability: 0.78, degree: 11)

- War Maps (stability: 0.76, degree: 12)
- IJustWantToBeCool (stability: 0.76, degree: 9)
- Allison Kane (stability: 0.76, degree: 8)
- Hwasong (stability: 0.76, degree: 7)

Label: MISC 1

- Theo Baker (stability: 0.7, degree: 3)
- ThePaultergeist (stability: 0.68, degree: 4)
- SyrianNationalist Channel (stability: 0.64, degree: 3)
- Geumsaegi (stability: 0.64, degree: 2)
- EyshElly - ايش اللي (stability: 0.64, degree: 2)

Label: ITALIAN

- GIGI D'AGOSTINO (stability: 1.0, degree: 41)
- Nova Lectio (stability: 1.0, degree: 28)
- ShePastAway (stability: 1.0, degree: 21)
- Marty Bones - Roman Edits (stability: 1.0, degree: 16)
- yotobi (stability: 1.0, degree: 16)

Label: GREEK

- MAD GREEK (stability: 0.9, degree: 2)
- Rage Against the Machine (stability: 0.86, degree: 16)
- Luben TV (stability: 0.86, degree: 13)
- Easy Russian (stability: 0.86, degree: 12)
- Practical Thinking (stability: 0.86, degree: 11)

Label: CZECH

- Road to Vostok (stability: 1.0, degree: 33)
- Nemo's Dreamscapes (stability: 1.0, degree: 28)
- ViralBrothers (stability: 1.0, degree: 26)
- MoncaCZ (stability: 1.0, degree: 18)
- Agraelus (stability: 1.0, degree: 18)

Label: ROMANIAN

- Bace Bulgarian Mapper (stability: 0.98, degree: 31)
- Codrin Bradea : Satana (stability: 0.98, degree: 20)
- Recorder (stability: 0.98, degree: 17)

- Ziafet (stability: 0.98, degree: 15)
- B.U.G. Mafia (stability: 0.98, degree: 14)

Label: HUNGARIAN

- FarFromWeak (stability: 1.0, degree: 56)
- Radics Peti (stability: 1.0, degree: 20)
- JustVidman (stability: 1.0, degree: 18)
- PamKutya (stability: 1.0, degree: 15)
- Videómánia (stability: 1.0, degree: 12)

Label: MISC 3

- Earth Wind & Fire (stability: 0.92, degree: 14)
- A&P-REACTS (stability: 0.92, degree: 12)
- Metro Liner (stability: 0.92, degree: 10)
- Mandelin (stability: 0.92, degree: 10)
- Drivr3joe (stability: 0.92, degree: 9)

Label: GEORGIAN

- Warner Classics (stability: 0.94, degree: 12)
- Weltschmerz (stability: 0.94, degree: 10)
- **ROSTMEO** (stability: 0.94, degree: 7)
- იარაღის განხილვა (stability: 0.94, degree: 7)
- Toma Chagelishvili (stability: 0.94, degree: 6)

Label: ART

- Proko (stability: 0.62, degree: 26)
- Beyond The Guitar (stability: 0.62, degree: 10)
- Taioo (stability: 0.62, degree: 9)
- Adam Duff LUCIDPIXUL (stability: 0.62, degree: 8)
- Joel Huenink (stability: 0.62, degree: 8)

Label: MISC 4

- Dani Klarić (stability: 1.0, degree: 3)
- 쏘베리 Ssoberry (stability: 1.0, degree: 2)
- Grubanny (stability: 1.0, degree: 2)

Label: MISC 5

- GamingGargoyle (stability: 0.98, degree: 11)
- Bryan15 (stability: 0.98, degree: 2)

Label: MISC 6

- KN Armada Rijeka (stability: 1.0, degree: 2)
- Qazji (stability: 1.0, degree: 2)

Label: MISC 7

- Milkychan (stability: 0.86, degree: 4)

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